

21 West Church Street  
Jacksonville, Florida 32202-3139

June 19, 2006

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BUREAU OF AIR REGULATION



Trina L. Vielhauer, Chief  
Bureau of Air Regulation  
Division of Air Resource Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

ELECTRIC

Subject: JEA Brandy Branch Generating Station  
Construction/Title V Permit Revision Application

WATER

Dear Ms. Vielhauer:

SEWER

This letter and enclosed application forms are to request a revision to Construction Permit No. PSD-FL-310 and Air Operation Permit No. 0310485-13-AV for the JEA Brandy Branch generating station (BBGS). The requested permit revision is for an increase in the permitted Unit 2 and Unit 3 duct burner heat input rate from 170 mmBtu/hr (higher heating value – HHV) to 200 mmBtu/hr (HHV). Also, JEA is requesting a limit on the operation of each duct burner of less than 4,500 hours per year, so the requested permit changes do not result in an increase in the duct burner potential emissions. This request does not involve a physical change at the facility. It instead simply seeks to change the permit to reflect the installed capacity of these duct burners.

### Background

JEA initially received an air permit for construction of three simple cycle combustion turbines at the Brandy Branch Generating Station. Subsequently, JEA applied for and received an air permit application to convert two of the three simple cycle units to combined cycle units (Unit 2 and Unit 3). The initial combined cycle conversion permit allowed for installation of an 85 mmBtu/hr (HHV) duct burner on each combined cycle unit. Subsequently, JEA applied for and received a revised construction permit that allowed for the installation of 170 mmBtu/hr (HHV) duct burners. The combined cycle conversion project was completed in 2004, with operation beginning in the November 2004 timeframe. With operation of the combined cycle units, it was found that the duct burners could actually operate at a maximum heat input of approximately 200 mmBtu/hr (HHV). As such, the purpose of the proposed permit change is to simply have the permitted duct burner maximum heat input limit reflect the heat input that can be achieved by the installed duct burners. The following items highlight the basis for this requested permit change:

- There is no actual physical change to the emission units.
- The units are relatively new and the requested change stems from a desire to make changes to the permit necessary to have the permit match the final installation.
- JEA is willing to take a limit on annual duct burner operating hours to ensure that the duct burner potential to emit is not increased with this permit change.
- No other permit changes are requested as part of this permit application.

**Emissions Change/NSR Applicability**

The potential emissions of the subject duct burners with the current permitted limit of 170 mmBtu/hr heat input rate and the proposed permitted limit of 200 mmBtu/hr heat input rate are shown in Table 1 below. As seen from this table, there is a minimal increase in potential emissions associated with the increase in the duct burner heat input. This table demonstrates that the potential emissions increase associated with the proposed permit change does not exceed the PSD major modification significant emission rate (SER) threshold levels. Further, JEA is proposing that the increase in the duct burner heat input limits be accompanied by a limit on the annual operating hours of the duct burners of 4,500 hours per year. This will effectively result in potential duct burner emissions less than what they were before the requested permit change. This is also shown in Table 1.

Table 1 – Estimated Potential to Emit (PTE)					
Pollutant	SERs (tpy)	PTE Estimates (both duct burners combined)			
		85 mmBtu/hr duct burners with no operational limits <sup>1,2</sup> (tpy)	170 mmBtu/hr duct burners with no operational limits <sup>1,2</sup> (tpy)	200 mmBtu/hr duct burners, each limited to 4,500 hours of annual operation <sup>2</sup> (tpy)	Change in PTE (85 mmBtu/hr to 200 mmBtu/hr) with requested permit change (tpy)
NO <sub>x</sub>	40	9.72	19.45	11.75	2.03
SO <sub>2</sub> <sup>3</sup>	40	4.56	9.11	5.51	0.95
CO	100	74.64	149.27	90.21	15.57
VOC <sup>4</sup>	40	17.87	35.74	21.60	3.73
PM <sup>4</sup>	25	11.92	23.84	14.40	2.48
PM <sub>10</sub> <sup>4</sup>	15	11.92	23.84	14.40	2.48

<sup>1</sup> Based on assuming operating rate of 8,760 hours per year and use of lb/mmBtu emission rates derived from previous BBGS permitting efforts.

<sup>2</sup> Emissions from both duct burners combined.

<sup>3</sup> Assumes a natural gas sulfur content of 2 grains per 100 scf.

<sup>4</sup> VOC and PM/PM<sub>10</sub> emissions are limited by permit on a lb/hr basis. JEA is not requesting an increase in the current lb/hr limits associated with the 170 mmBtu/hr duct burner heat input. Therefore, there will be no increase in permitted hourly emissions of these pollutants.

Under prevention of significant deterioration (PSD) regulations, a review of a modification project emission increases typically involves a comparison of baseline actual emissions to projected actual emissions, or alternatively potential emissions. According to 62-210.200(34)(c), F.A.C., for a new emissions unit the baseline actual emissions shall equal the unit's potential to emit. Because the combined cycle units 1 and 2 duct burners commenced operation only slightly more than a year ago, and the higher achievable duct burner heat input was discovered during the subsequent shakedown of the units, the potential to emit is used as the baseline actual emissions for the duct burners. As shown in Table 1 above, the potential emissions from both duct burners after the requested permit change, considering the requested 4,500 hour per year limit on duct burner operation, is less than the potential to emit (or baseline actual emissions) of the duct burners prior to the proposed permit change. Therefore, not only are the emission changes associated with the proposed permit change less than the PSD SER levels, there will also be no increase in potential emissions associated with the proposed change. Further, as shown in Table 1, the potential emissions increase from the original 85 mmBtu/hr duct burner heat input rate to the requested 200 mmBtu/hr heat input rate (with the 4,500 hours per year operational limit) does not result in potential emission increases greater than the PSD SER levels. Also of note is that the maximum short-term (i.e. 24-hour) emissions from the units occur when the combustion turbine is firing fuel oil. Because the duct burners do not operate when the combustion turbines are firing fuel oil, there will be no increase in the maximum short-term combustion turbine emission levels associated with this request.

#### **Review of NSPS applicability**

The duct burners are currently subject to the New Source Performance Standard (NSPS) for Industrial-Commercial-Institutional Steam Generating Units located at 40 CFR Part 60 Subpart Db. This NSPS is applicable to steam generating units with a heat input greater than 100 mmBtu/hr. Note that Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, is generally applicable to a fossil fuel fired electric utility steam generating unit with a heat input greater than 250 mmBtu/hr. Because the increase in the duct burner size to 200 mmBtu/hr will not affect which NSPS the duct burners will be applicable to and the facility is currently required to comply with Subpart Db requirements and will continue to be required to comply with Subpart Db requirements, the requested change should not result in any changes to NSPS applicability or related permit conditions.

#### **Review of MACT Standard applicability**

There is no maximum achievable control technology (MACT) standard that would be applicable to the BBGS duct burners. The industrial boiler MACT, found at 40 CFR 63 Subpart DDDDD, does not apply to an electric utility steam generating unit that is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. As such, the duct burners would not be subject to this MACT standard. Also, BBGS is not a major source of HAPs and Subpart DDDDD is only applicable to major HAP sources.

Ms. Vielhauer  
June 19, 2006  
Page Four

**Summary**

In summary, the requested increase in the permitted heat input of the BBGS Unit 2 and Unit 3 duct burners is a minor change to the existing construction permit and Title V operation permit. It results in no change to the NSPS or MACT standard applicability for these emission units. The proposed change does not involve a physical change to the facility and is simply requested so that the permit reflects the actual heat input rate that the duct burners can attain. The only other permitting change included as part of this request is to limit the operation of each duct burner to less than 4,500 hours per year so the combined requested permit changes do not result in an increase in emissions.

If there are any questions regarding this application please contact me at 904-665-6247.

Sincerely,



N. Bert Gianazza, P.E.  
Environmental Services

Enclosures: As Noted.



# Department of Environmental Protection

## Division of Air Resource Management

### APPLICATION FOR AIR PERMIT - LONG FORM

#### 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/revise/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: JEA	
2. Site Name: Brandy Branch Generating Station	
3. Facility Identification Number: 0310485	
4. Facility Location... Street Address or Other Locator: JEA Brandy Branch Generating Station City: Baldwin City                      County: Duval                      Zip Code: 32234	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

#### Application Contact

1. Application Contact Name: N. Bert Gianazza, P.E.	
2. Application Contact Mailing Address... Organization/Firm: JEA Street Address: 21 West Church Street City: Jacksonville                      State: FL                      Zip Code: 32202-3139	
3. Application Contact Telephone Numbers... Telephone: (904) 665-6247                      ext.                      Fax: (904) 665-7376	
4. Application Contact Email Address: giannb@jea.com	

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s):	4. Siting Number (if applicable):

## APPLICATION INFORMATION

### 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

The purpose of this application is to incorporate the heat input rates that can actually be achieved by the Unit 2 and Unit 3 duct burners into Construction Permit No. PSD-FL-310 (combined cycle conversion project). This request is detailed in the application support document. While there is no physical change to the facility associated with this request, it does involve a change to the facility construction permit. Also, JEA is requesting a limit on the operation of each duct burner of less than 4,500 hours per year, so the requested permit changes do not result in an increase in potential emissions.

**APPLICATION INFORMATION**

**Scope of Application**

<b>Emissions Unit ID Number</b>	<b>Description of Emissions Unit</b>	<b>Air Permit Type</b>	<b>Air Permit Proc. Fee</b>
002	Unit 2 – 170 MW Combined Cycle Combustion Turbine with Supplementary Fired HRSG		
003	Unit 3 - 170 MW Combined Cycle Combustion Turbine with Supplementary Fired HRSG		

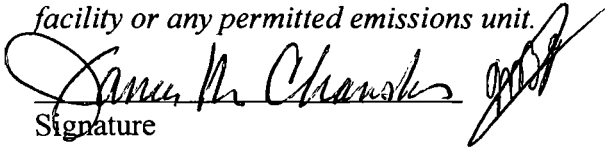
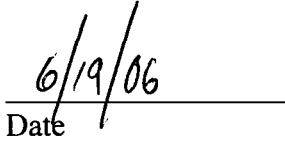
**Application Processing Fee**

**Check one:**  Attached - Amount: \$ \_\_\_\_\_  Not Applicable

**APPLICATION INFORMATION**

**Owner/Authorized Representative Statement**

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

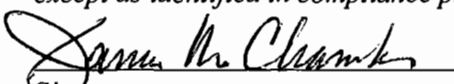
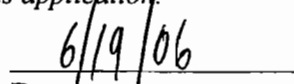
1. Owner/Authorized Representative Name : Mr. James M. Chansler, P.E., D.P.A., Vice President, Operations and Maintenance
2. Owner/Authorized Representative Mailing Address... Organization/Firm: JEA Street Address: 21 West Church Street City: Jacksonville State: FL Zip Code: 32202
3. Owner/Authorized Representative Telephone Numbers... Telephone: (904) 665-4433 ext. Fax: (904) 665-7990
4. Owner/Authorized Representative Email Address:
5. Owner/Authorized Representative Statement:  <i>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.</i>   Signature   Date



**APPLICATION INFORMATION**

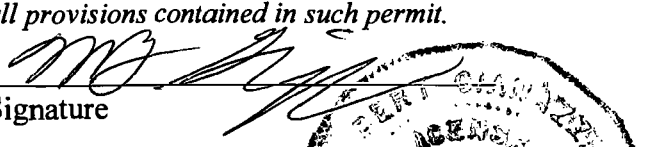
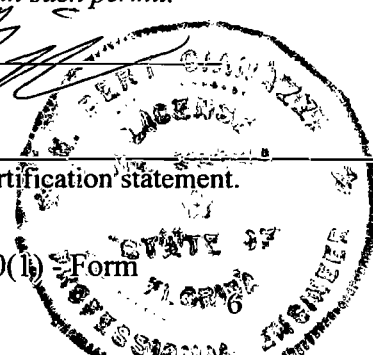
**Application Responsible Official Certification**

**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: Mr. James M. Chansler, P.E., D.P.A., Vice President, Operations and Maintenance
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> 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. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input checked="" type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: JEA Street Address: 21 West Church Street City: Jacksonville State: FL Zip Code: 32202
4. Application Responsible Official Telephone Numbers... Telephone: (904) 665-4433 ext. Fax: (904) 665-7990
5. Application Responsible Official Email Address:
6. Application Responsible Official Certification: <i>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.</i>  Signature  Date

**APPLICATION INFORMATION**

**Professional Engineer Certification**

1. Professional Engineer Name: N. Bert Gianazza Registration Number: 38640
2. Professional Engineer Mailing Address... Organization/Firm: JEA Street Address: 21 West Church Street City: Jacksonville State: FL Zip Code: 32202
3. Professional Engineer Telephone Numbers... Telephone: (904) 665-6247 ext. Fax: (904) 665-7376
4. Professional Engineer Email Address: giannb@jea.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(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</i> <i>(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.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, 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.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, 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 <input checked="" type="checkbox"/>, 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.</i> <i>(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 <input type="checkbox"/>, 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.</i> Signature  (seal)  Date <u>6/12/06</u>

\* Attach any exception to certification statement.

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### Facility Location and Type

1. Facility UTM Coordinates... Zone 17      East (km)    408.81 North (km)    3354.38		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
3. Governmental Facility Code: 4	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	6. Facility SIC(s): 4911
7. Facility Comment :			

#### Facility Contact

1. Facility Contact Name: N. Bert Gianazza, P.E. – Environmental Services
2. Facility Contact Mailing Address... Organization/Firm: JEA Street Address: 21 West Church Street City: Jacksonville      State: FL      Zip Code: 32202
3. Facility Contact Telephone Numbers: Telephone: (904) 665-6247      ext.      Fax: (904) 665-7376
4. Facility Contact Email Address: giannb@jea.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:

# 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. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:          	

**FACILITY INFORMATION**

**List of Pollutants Emitted by Facility**

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
NOX	A	N
CO	A	N
VOC	B	N
SO2	A	Y
PM	A	N
PM10	A	N

**FACILITY INFORMATION**

**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
SO2	N	Units 2 and 3			

7. Facility-Wide or Multi-Unit Emissions Cap Comment:  
 Combined maximum 576 actual plus equivalent hours of fuel oil firing for the two combined cycle combustion turbines (Units 2 and 3) per consecutive 12-month period while firing 0.05% sulfur, by weight, fuel oil. Combined maximum 1,478 actual plus equivalent hours of fuel oil firing for the two combined cycle combustion turbines (Units 2 and 3) per consecutive 12-month period while firing lower sulfur fuel oil (0.0065% sulfur, by weight). Actual and equivalent hours are defined in Permit No. PSD-FL-310 (PA00-43) condition 14.B. and 14.C as modified on May 17, 2004.

**FACILITY INFORMATION**

**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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. A</u> <input type="checkbox"/> Previously Submitted, Date: _____
2. 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. B</u> <input type="checkbox"/> Previously Submitted, Date: _____
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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. C</u> <input type="checkbox"/> Previously Submitted, Date: _____

**Additional Requirements for Air Construction Permit Applications**

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. D</u>
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. E</u>
4. List of Exempt Emissions Units (Rule 62-210.300(3), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**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: \_\_\_\_\_  Not Applicable (no exempt units at facility)

**Additional Requirements for Title V Air Operation Permit Applications**

1. List of Insignificant Activities (Required for initial/renewal applications only):  
 Attached, Document ID: \_\_\_\_\_  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):  
 Attached, Document ID: \_\_\_\_\_  
 Not Applicable (revision application with no change in applicable requirements)

3. Compliance Report and Plan (Required for all initial/revision/renewal applications):  
 Attached, Document ID: \_\_\_\_\_  
Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.

4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):  
 Attached, Document ID: \_\_\_\_\_  
 Equipment/Activities On site but Not Required to be Individually Listed  
 Not Applicable

5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) :  
 Attached, Document ID: \_\_\_\_\_  Not Applicable

6. Requested Changes to Current Title V Air Operation Permit:  
 Attached, Document ID: See Application Letter  Not Applicable

**Additional Requirements Comment**



## EMISSIONS UNIT INFORMATION

Section [1] of [2]

### 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.

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**A. GENERAL EMISSIONS UNIT INFORMATION**

**Title V Air Operation Permit Emissions Unit Classification**

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.

**Emissions Unit Description and Status**

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

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section: Unit 2 – One nominal 170 MW Gas Combustion Turbine-Electrical Generator configured as a combined cycle unit, complete with supplementary fired HRSG

3. Emissions Unit Identification Number: 002

4. Emissions Unit Status Code: A	5. Commence Construction Date: 10/15/02	6. Initial Startup Date: 11/27/04	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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9. Package Unit:  
Manufacturer: General Electric Model Number: GE PG7241 FA

10. Generator Nameplate Rating: 170 MW

11. Emissions Unit Comment: This emission unit is a GE PG7241 FA combustion turbine with supplemental duct burner firing. Natural gas is the primary fuel and fuel oil is the back-up fuel. This permit application seeks to raise the permitted (Permit No. PSD-FL-310) duct burner heat input rate to the rate that is actually achievable by the installed equipment. Also, JEA is requesting a limit on the operation of the duct burner of less than 4,500 hours per year, so the requested permit changes do not result in an increase in potential emissions.

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:  
Dry Low-NOx (DLN) Combustor.

Water Injection during fuel oil firing.

Selective Catalytic Reduction (SCR).

2. Control Device or Method Code(s): 205, 028, 139

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**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:	1,911 (HHV) million Btu/hr	(Natural gas firing)
	2,060 (HHV) million Btu/hr	(Fuel oil firing)
Duct Burner	200 (HHV) million Btu/hr	(Natural gas firing)
4. Maximum Incineration Rate: pounds/hr tons/day		
5. Requested Maximum Operating Schedule:		
For natural gas firing:	24 hours/day	7 days/week
CT and duct burner	52 weeks/year	8,760 hours/year
For 0.05% sulfur fuel oil firing:	16 hours/day	7 days/week
	52 weeks/year	576 hours/year
For lower sulfur fuel oil (0.0065% S) firing:	24 hours/day	7 days/week
	52 weeks/year	1,478 hours/year
Duct Burner	24 hours/day	7 days/week
Natural gas firing:	52 weeks/year	4,500 hours/year
6. Operating Capacity/Schedule Comment: The heat input rates are a function of operating parameters and ambient conditions. The rates given in Field 3 are from Permit No. PSD-FL-310 and the June 5, 2003 modification to Permit No. PSD-FL-310 and are based on the higher heating value (HHV) of each fuel. The shown duct burner heat input is the permit heat input rate requested by this permit application. The heat input rates are included in the permit only for purposes of determining capacity during performance tests. Continuous compliance with these rates is not required.  Under permit number PSD-FL-310, the permitted annual operating rate while firing 0.05 percent sulfur fuel oil is 576 hours per year for unit 2 and unit 3 combined.  Under the May 17, 2004 modification to Permit Number PSD-FL-310, the permitted annual operating rate while firing 0.0065 percent sulfur fuel oil is 1,478 hour per year for Unit 2 and Unit 3 combined with no short-term operational limits.  The 4,500 hours per year duct burner operating shown in Field 5 reflects the operating hours request included with this permit application.		

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**C. EMISSION POINT (STACK/VENT) INFORMATION  
(Optional for unregulated emissions units.)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: ID #23 on Plot Plan		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: One 190-foot vertical cylindrical exhaust stack associated with the CT/HRSG			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: N/A			
5. Discharge Type Code: V	6. Stack Height: 190 feet	7. Exit Diameter: 18.0 feet	
8. Exit Temperature: 204 °F	9. Actual Volumetric Flow Rate: 1,009,200 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: 790,100 dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 408.774 North (km): 3354.531		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Exit temperature and flow rate are with operation of the combustion turbine at 100 percent load on natural gas with the duct burner firing and at an ambient temperature of 59°F.			

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

**Segment Description and Rate:** Segment 1 of 4

1. Segment Description (Process/Fuel Type): Combustion turbine operating in combined cycle mode on natural gas. This unit is allowed to operate on natural gas for the entire year (i.e. 8,760 hours per year).		
2. Source Classification Code (SCC): 2-01-002-01	3. SCC Units: Million Cubic Feet Burned	
4. Maximum Hourly Rate: 1.98 (approx.)	5. Maximum Annual Rate: 16,200 (approx.)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 965 (HHV)
10. Segment Comment: Approximate fuel use rate calculations: (heat input at HHV)/(fuel HHV) = hourly rate (1,911 mmBtu/hr)/(965 mmBtu/million scf) = 1.98 million scf/hour [(1,785 mmBtu/hr)/(965 mmBtu/million scf)]x(8,760 hr/yr) = 16,204 million scf/yr Approximate fuel use rates are provided for informational purposes only and do not constitute limits. Actual fuel use rates are a function of the fuel heating value and the emission unit operating conditions.		

**Segment Description and Rate:** Segment 2 of 4

1. Segment Description (Process/Fuel Type): Combustion turbine operating in combined cycle mode on No. 2 distillate fuel oil. The maximum allowable hours of fuel oil firing for Unit 2 and Unit 3 combined is 576 hours per consecutive 12-month period (Permit No. PSD-FL-310).		
2. Source Classification Code (SCC): 2-01-001-01	3. SCC Units: Thousand Gallons Burned	
4. Maximum Hourly Rate: 14.8 (approx.)	5. Maximum Annual Rate: 8,040 (approx.)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.05	8. Maximum % Ash:	9. Million Btu per SCC Unit: 139 (HHV)
10. Segment Comment: Approximate fuel use rate calculations: (heat input at HHV)/(fuel HHV) = hourly rate (2,060 mmBtu/hr)/(139 mmBtu/kgal) = 14.82 kgal/hour [(1,939 mmBtu/hr)/(139 mmBtu/kgal)]x(576 hr/yr) = 8,035 kgal/yr The maximum annual rate is based on the assumption that combined Unit 2 and Unit 3 maximum allowable hours of fuel oil firing are all used in Unit 2. Actual fuel use rates are a function of the fuel heating value and the emission unit operating conditions. Approximate fuel use rates are provided for informational purposes only and do not constitute limits.		

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

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

**Segment Description and Rate: Segment 3 of 4**

1. Segment Description (Process/Fuel Type): Combustion turbine operating in combined cycle mode on lower sulfur fuel oil (0.0065% sulfur, by weight). The maximum allowable hours of lower sulfur fuel oil firing for Unit 2 and Unit 3 combined is 1,478 hours per consecutive 12-month period.		
2. Source Classification Code (SCC): 2-01-001-01		3. SCC Units: Thousand Gallons Burned
4. Maximum Hourly Rate: 14.8 (approx.)	5. Maximum Annual Rate: 20,620 (approx.)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.0065	8. Maximum % Ash:	9. Million Btu per SCC Unit: 139 (HHV)
10. Segment Comment: Approximate fuel use rate calculations: (heat input at HHV)/(fuel HHV) = hourly rate (2,059 mmBtu/hr)/(139 mmBtu/kgal) = 14.81 kgal/hour [(1,939 mmBtu/hr)/(139 mmBtu/kgal)]x(1,478 hr/yr) = 20,618 kgal/yr The maximum annual rate is based on the assumption that combined Unit 2 and Unit 3 maximum allowable hours of lower sulfur fuel oil firing are all used in Unit 2. Actual fuel use rates are a function of the fuel heating value and the emission unit operating conditions. Approximate fuel use rates are provided for informational purposes only and do not constitute limits.		

**Segment Description and Rate: Segment 4 of 4**

1. Segment Description (Process/Fuel Type): Duct burner operating on natural gas.		
2. Source Classification Code (SCC):		3. SCC Units: Million Cubic Feet Burned
4. Maximum Hourly Rate: 0.21 (approx.)	5. Maximum Annual Rate: 932 (approx.)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 965 (HHV)
10. Segment Comment: Approximate fuel use rate calculations: (heat input at HHV)/(fuel HHV) = hourly rate Maximum hourly rate = (200 mmBtu/hr)/(965 mmBtu/mmscf) = 0.207 mmscf/hr Maximum annual rate = (0.207 mmscf/hr) x (4,500 hr/yr) = 932 mmscf/yr Fuel use rates are a function of operating conditions. Approximate fuel use rates are provided for informational purposes only and do not constitute limits.		

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>NOX</b>	<b>139</b>	<b>205, 028</b>	<b>EL</b>
<b>CO</b>			<b>EL</b>
<b>VOC</b>			<b>EL</b>
<b>SO2</b>			<b>WP</b>
<b>PM</b>			<b>EL</b>
<b>PM10</b>			<b>EL</b>



**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: NOX		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 119.37 lb/hour      136.66 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference:		7. Emissions Method Code: 5	
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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Highest hourly emissions for combined cycle operation: Natural gas = 24.95 lb/hr @ 20°F (w/out duct burner) and 24.03 @ 59°F (with duct burner) 23.32 lb/hr @ 59°F (without duct burner) Fuel oil = 119.37 lb/hr max @ 20°F and 112.41 lb/hr @ 59°F (w/out duct burner) Potential annual emissions: Potential annual emissions are based on operation at 100% load and 59°F and the maximum allowable hours of lower sulfur fuel oil (0.0065% sulfur) firing for Unit 2 and Unit 3 combined of 1,478 hours per consecutive 12-month period and maximum proposed duct burner operation of 4,500 hours per year per duct burner. For this calculation, it is assumed that the allowable hours of fuel oil firing are evenly split between Unit 2 and Unit 3. Therefore, worst-case annual NOx emissions are with 739 hours of operation on the lower sulfur fuel oil, 4,500 hours of operation on natural gas with duct firing and 3,521 hour of operation on natural gas without duct firing. Annual emissions = [(24.03 lb/hr) x (4,500 hr/yr) + (23.32 lb/hr) x (3,521 hr/yr) + (112.41 lb/hr) x (739 hr/yr)] / (2,000 lb/ton) = 136.66 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: The potential hourly and annual emissions are for informational purposes only and do not constitute limits. If all of the Unit 2 and Unit 3 combined allowable hours of fuel oil firing were used in Unit 2, the annual potential emissions would be greater than shown. However, the annual potential emissions for Unit 3 would then decrease by an equal amount.			

**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

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 3.5 ppmvd @15% O <sub>2</sub> on a 3-hour block avg	4. Equivalent Allowable Emissions: 25 lb/hour                      109.5 tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 apply when firing natural gas. The allowable emissions level is BACT and is found in Permit No. PSD-FL-310. The pound per hour and ton per year equivalent emissions rates are given for informational purposes only and do not constitute limits. The annual equivalent allowable emissions conservatively assume operation at the maximum lb/hr emissions rate (@ 20°F ambient temperature and no duct firing).	

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 15.0 ppmvd @15% O <sub>2</sub> on a 3-hour block average	4. Equivalent Allowable Emissions: 119.4 lb/hour                      41.5 tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 applies when firing fuel oil. The allowable emissions level is BACT and is found in Permit No. PSD-FL-310. The pound per hour and ton per year equivalent emissions rates are given for informational purposes only and do not constitute limits.	

**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: lb/hour                      tons/year
5. Method of Compliance:	
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: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 72.43 lb/hour                      238.89 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference:		7. Emissions Method Code: 5	
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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Highest hourly emissions for combined cycle operation: Natural gas = 65.58 lb/hr @ 95°F and 55.68 lb/hr @ 59°F (with duct burner) and 50.29 lb/hr @ 59°F (w/out duct burners) Fuel oil = 72.43 lb/hr @ 20°F and 67.86 lb/hr @ 59°F (w/out duct burner) Potential annual emissions: Potential annual emissions are based on operation at 100% load and 59°F and the maximum allowable hours of lower sulfur fuel oil (0.0065% sulfur) firing for Unit 2 and Unit 3 combined of 1,478 hours per consecutive 12-month period. For this calculation, it is assumed that these hours of operation are evenly split between Unit 2 and Unit 3. Therefore, worst-case annual CO emissions are with 739 hours of operation on the lower sulfur fuel oil, 4,500 hours of operation on natural gas with duct firing and 3,521 hour of operation on natural gas without duct firing. Annual emissions = [(55.68 lb/hr) x (4,500 hr/yr) + (50.29 lb/hr) x (3,521 hr/yr) + (67.86 lb/hr) x (739 hr/yr)] / (2,000 lb/ton) = 238.89 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: The potential hourly and annual emissions are for informational purposes only and do not constitute limits. If all of the Unit 2 and Unit 3 combined allowable hours of fuel oil firing were used in Unit 2, the annual potential emissions would be greater than shown. However, the annual potential emissions for Unit 3 would then decrease by an equal amount.			

**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 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 14 ppmvd @15% O <sub>2</sub> on a 24-hour block average	4. Equivalent Allowable Emissions: 72.4 lb/hour      238.9 tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 applies when firing natural gas or fuel oil. The allowable emissions level is BACT and is found in Permit No. PSD-FL-310. The pound per hour and ton per year equivalent emissions rates are given for informational purposes only and do not constitute limits.	

**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: lb/hour      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**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: lb/hour      tons/year
5. Method of Compliance:	
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/PM10		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 62.1 lb/hour                      102.31 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference:		7. Emissions Method Code:	
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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Highest hourly emissions for combined cycle operation: Natural gas = 22.02 lb/hr (permit limit), 20.17 lb/hr @ 59°F (with duct burner), and 19.30 lb/hr @ 59°F (w/out duct burner) Fuel oil = 62.1 lb/hr (w/out duct burner) (permit limit) Potential annual emissions: Potential annual emissions are based on operation at 100% load and 59°F and the maximum allowable hours of lower sulfur fuel oil (0.0065% sulfur) firing for Unit 2 and Unit 3 combined of 1,478 hours per consecutive 12-month period. For this calculation, it is assumed that these hours of operation are evenly split between Unit 2 and Unit 3. Therefore, worst-case annual PM/PM <sub>10</sub> emissions are with 739 hours of operation on the lower sulfur fuel oil, 4,500 hours of operation on natural gas with duct firing and 3,521 hour of operation on natural gas without duct firing. Annual emissions = [(20.17 lb/hr) x (4,500 hr/yr) + (19.30 lb/hr) x (3,521 hr/yr) + (62.1 lb/hr) x (739 hr/yr)] / (2,000 lb/ton) = 102.31 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: Hourly emissions are given in Permit No. PSD-FL-310 and the June 5, 2003 modification to Permit No. PSD-FL-310. The potential annual emissions are for informational purposes only and do not constitute limits. If all of the Unit 2 and Unit 3 combined allowable hours of fuel oil firing were used in Unit 2, the annual potential emissions would be greater than shown. However, the annual potential emissions for Unit 3 would then decrease by an equal amount.			

**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

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 22.02 lb/hr	4. Equivalent Allowable Emissions: 22.0 lb/hour      96.4 tons/year
5. Method of Compliance: Compliance demonstrated by opacity	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions rate in Field 3 applies when firing natural gas. The allowable emissions and method of compliance are from Permit No. PSD-FL-310 and the June 5, 2003 modification to Permit No. PSD-FL-310. The ton per year equivalent emissions rate is given for informational purposes only and does not constitute a limit.	

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 62.1 lb/hr	4. Equivalent Allowable Emissions: 62.1 lb/hour      22.9 tons/year
5. Method of Compliance: Compliance demonstrated by opacity	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions rate in Field 3 applies when firing fuel oil. The allowable emissions and method of compliance are found in Permit No. PSD-FL-310. The ton per year equivalent emissions rate is given for informational purposes only and does not constitute a limit. For the tons per year equivalent emissions rate, it is assumed that the allowable annual hours of fuel oil firing operation for Unit 2 and Unit 3 combined are evenly split between Unit 2 and Unit 3.	

**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: lb/hour      tons/year
5. Method of Compliance:	
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: SO <sub>2</sub>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 109.35 lb/hour      63.86 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference:		7. Emissions Method Code:	
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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
<p>10. Calculation of Emissions:</p> <p>Highest hourly emissions for combined cycle operation:                      Natural gas (2 grains sulfur per 100 scf) = 12.2 lb/hr @ 20°F (w/out duct burner), 11.73 lb/hr @ 59°F (with duct burner), and 11.40 lb/hr @ 59°F (w/out duct burner)                      Fuel oil (0.05% sulfur) = 109.35 lb/hr @ 20°F and 102.97 lb/hr @ 59°F (w/out duct burner)                      Lower sulfur fuel oil (0.0065% sulfur) = 14.22 lb/hr @ 20°F and 13.39 @ 59°F</p> <p>Potential annual emissions:                      Worst case potential annual emissions are based on operation at 100% load and 59°F and the maximum allowable hours of 0.05% sulfur fuel oil firing for Unit 2 and Unit 3 combined of 576 hours per consecutive 12-month period. It is assumed that these hours of operation are evenly split between Unit 2 and Unit 3. Therefore, worst-case annual SO<sub>2</sub> emissions are with 288 hours of operation on 0.05% sulfur fuel oil, 4,500 hours of operation on natural gas with duct firing and 3,972 hour of operation on natural gas without duct firing.                      Annual emissions = [(11.73 lb/hr) x (4,500 hr/yr) + (11.40 lb/hr) x (3,972 hr/yr) + (102.97 lb/hr) x (288 hr/yr)] / (2,000 lb/ton) = 63.86 ton/yr                      Note that potential annual SO<sub>2</sub> emissions are less with the lower sulfur fuel oil (0.0065% sulfur) operating scenario.</p>			
11. Potential, Fugitive, and Actual Emissions Comment: The potential hourly and annual emissions are for informational purposes only and do not constitute limits. If all of the Unit 2 and Unit 3 combined allowable hours of fuel oil firing were used in Unit 2, the annual potential emissions would be greater than shown. However, the annual potential emissions for Unit 3 would then decrease by an equal amount.			

**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 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: Use of pipeline natural gas	4. Equivalent Allowable Emissions: 12.2 lb/hour      50.7 tons/year
5. Method of Compliance: Natural gas supplier tariff sheet	
6. Allowable Emissions Comment (Description of Operating Method): The pound per hour and tons per year equivalent emissions rates are given for informational purposes only and do not constitute limits.	

**Allowable Emissions** Allowable Emissions 2 of 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.05% sulfur, by weight, in the fuel oil	4. Equivalent Allowable Emissions: 109.4 lb/hour      14.8 tons/year
5. Method of Compliance: Fuel analysis	
6. Allowable Emissions Comment (Description of Operating Method): The pound per hour and tons per year equivalent emissions rates are given for informational purposes only and do not constitute limits. For the tons per year equivalent emissions rate, it is assumed that the allowable annual hours of fuel oil firing operation for Unit 2 and Unit 3 combined are evenly split between Unit 2 and Unit 3.	

**Allowable Emissions** Allowable Emissions 3 of 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.0065% sulfur, by weight, in the lower sulfur fuel oil	4. Equivalent Allowable Emissions: 14.2 lb/hour      4.9 tons/year
5. Method of Compliance: Fuel analysis	
6. Allowable Emissions Comment (Description of Operating Method): The fuel sulfur level given in Field 1 represents the alternate operating scenario allowed per the May 17, 2004 revision to Permit No. PSD-FL-310. The pound per hour and tons per year equivalent emissions rates are given for informational purposes only and do not constitute limits. For the tons per year equivalent emissions rate, it is assumed that the allowable annual hours of fuel oil firing operation for Unit 2 and Unit 3 combined are evenly split between Unit 2 and Unit 3.	



**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 4 of 4

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.8% sulfur, by weight, in the fuel oil	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: Fuel analysis	
6. Allowable Emissions Comment (Description of Operating Method): Rule: NSPS 40 CFR 60.334(b) Subpart GG – Standards of Performance for Stationary Gas Turbines	

**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: lb/hour                      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**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: lb/hour                      tons/year
5. Method of Compliance:	
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: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 7.68 lb/hour                      17.57 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference:		7. Emissions Method Code:	
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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum hourly emissions: Natural gas = 6.81 lb/hr (with duct burner) (permit limit), 4.24 lb/hr @ 59°F (with duct burner) and 4.0 lb/hr (w/out duct burner) (permit limit), 2.95 lb/hr @ 59 °F (w/out duct burner) Fuel oil = 7.68 lb/hr @ 59°F (w/out duct burner) (permit limit) Potential annual emissions: Potential annual emissions are based on the maximum allowable hours of fuel oil firing for Unit 2 and Unit 3 combined with lower sulfur fuel oil (0.0065% sulfur) of 1,478 hours per consecutive 12-month period with these hours of operation evenly split between Unit 2 and Unit 3. Therefore, worst-case annual VOC emissions are with 739 hours of operation on the lower sulfur fuel oil, 4,500 hours of operation on natural gas with duct firing and 3,521 hour of operation on natural gas without duct firing. Annual emissions = [(4.24 lb/hr) x (4,500 hr/yr) + (2.95 lb/hr) x (3,521 hr/yr) + (7.68 lb/hr) x (739 hr/yr)] / (2,000 lb/ton) = 17.57 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: The potential annual emissions are for informational purposes only and do not constitute limits. If all of the Unit 2 and Unit 3 combined allowable hours of fuel oil firing were used in Unit 2, the annual potential emissions would be greater than shown. However, the annual potential emissions for Unit 3 would than decrease by an equal amount.			

**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

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 6.81 lb/hr	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: EPA Method 18, 25 or 25A; CO CEMS as a surrogate	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions rate in Field 3 applies when firing natural gas. The allowable emissions rate is found in Permit No. PSD-FL-310 and the June 5, 2003 modification to Permit No. PSD-FL-310.	

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 7.68 lb/hr	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: EPA Method 18, 25 or 25A; CO CEMS as a surrogate	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions rate in Field 3 applies when firing fuel oil. The allowable emissions rate is found in Permit No. PSD-FL-310.	

**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: lb/hour                      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**G. VISIBLE EMISSIONS INFORMATION**

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

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE10	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 10 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: This visible emissions limit is included in Permit No. PSD-FL-310. Per Construction Permit No. PSD-FL-310 excess emissions resulting from startup, shutdown, or malfunction are permitted provided that best operational practices are adhered to and the period of excess emissions are minimized.	

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_ of \_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**H. CONTINUOUS MONITOR INFORMATION**

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

**Continuous Monitoring System:** Continuous Monitor 1 of 3

1. Parameter Code: EM	2. Pollutant(s): NOX
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: TECO Model Number: 42CLS Serial Number: 42CLS-78405-389	
5. Installation Date: 12/15/2004	6. Performance Specification Test Date: 12/15/2004
7. Continuous Monitor Comment: Rule: 40 CFR 60 and 40 CFR Part 75. Use of CEMS is required by Construction Permit No. PSD-FL-310.	

**Continuous Monitoring System:** Continuous Monitor 2 of 2

1. Parameter Code: EM	2. Pollutant(s): CO
3. CMS Requirement: <input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other	
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Use of CEMS is required by Construction Permit No. PSD-FL-310.	

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**

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

**Continuous Monitoring System:** Continuous Monitor 3 of 3

1. Parameter Code: CO2	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: CAI Model Number: 100 Serial Number: PO3048	
5. Installation Date: 12/15/2004	6. Performance Specification Test Date: 12/15/2004
7. Continuous Monitor Comment: Use of CEMS is required by Construction Permit No. PSD-FL-310.	

**Continuous Monitoring System:** Continuous Monitor \_\_\_ of \_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**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)  
 Attached, Document ID: Attach. B     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)  
 Attached, Document ID: Attach. F     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: Attach. G     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)  
 Attached, Document ID: \_\_\_\_\_     Previously Submitted, Date May, 2005  
 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: Attach. H     Previously Submitted, Date \_\_\_\_\_  
 Not Applicable

6. Compliance Demonstration Reports/Records  
 Attached, Document ID: \_\_\_\_\_  
    Test Date(s)/Pollutant(s) Tested: \_\_\_\_\_  
 Previously Submitted, Date: 1/14/05  
    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: \_\_\_\_\_     Not Applicable

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**Additional Requirements for Air Construction Permit Applications**


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)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> 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.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**Additional Requirements for Title V Air Operation Permit Applications**

1. Identification of Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. I</u>
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. J</u> <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input checked="" type="checkbox"/> Copy Attached, Document ID: <u>Attach. K</u> <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. K</u> <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable



**Additional Requirements Comment**



## EMISSIONS UNIT INFORMATION

Section [2] of [2]

### 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.

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]

**A. GENERAL EMISSIONS UNIT INFORMATION**

**Title V Air Operation Permit Emissions Unit Classification**

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.

**Emissions Unit Description and Status**

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

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section: Unit 3 – One nominal 170 MW Gas Combustion Turbine-Electrical Generator configured as a combined cycle unit, complete with supplementary fired HRSG

3. Emissions Unit Identification Number: 003

4. Emissions Unit Status Code: A	5. Commence Construction Date: 10/15/02	6. Initial Startup Date: 11/27/04	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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9. Package Unit:  
Manufacturer: General Electric Model Number: GE PG7241 FA

10. Generator Nameplate Rating: 170 MW

11. Emissions Unit Comment: This emission unit is a GE PG7241 FA combustion turbine with supplemental duct burner firing. Natural gas is the primary fuel and fuel oil is the back-up fuel. This permit application seeks to raise the permitted (Permit No. PSD-FL-310) duct burner heat input rate to the rate that is actually achievable by the installed equipment. Also, JEA is requesting a limit on the operation of the duct burner of less than 4,500 hours per year, so the requested permit changes do not result in an increase in potential emissions.

**EMISSIONS UNIT INFORMATION**

**Section [2] of [2]**

**Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:  
Dry Low-NOx (DLN) Combustor.

Water Injection during fuel oil firing.

Selective Catalytic Reduction (SCR).

2. Control Device or Method Code(s): 205, 028, 139

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]

**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:	1,911 (HHV) million Btu/hr	(Natural gas firing)
	2,060 (HHV) million Btu/hr	(Fuel oil firing)
Duct Burner	200 (HHV) million Btu/hr	(Natural gas firing)
4. Maximum Incineration Rate: pounds/hr tons/day		
5. Requested Maximum Operating Schedule:		
For natural gas firing:	24 hours/day	7 days/week
CT and duct burner	52 weeks/year	8,760 hours/year
For 0.05% sulfur fuel oil firing:	16 hours/day	7 days/week
	52 weeks/year	576 hours/year
For lower sulfur fuel oil (0.0065% S) firing:	24 hours/day	7 days/week
	52 weeks/year	1,478 hours/year
Duct Burner	24 hours/day	7 days/week
Natural gas firing:	52 weeks/year	4,500 hours/year
6. Operating Capacity/Schedule Comment: The heat input rates are a function of operating parameters and ambient conditions. The rates given in Field 3 are from Permit No. PSD-FL-310 and the June 5, 2003 modification to Permit No. PSD-FL-310 and are based on the higher heating value (HHV) of each fuel. The shown duct burner heat input is the permit heat input rate requested by this permit application. The heat input rates are included in the permit only for purposes of determining capacity during performance tests. Continuous compliance with these rates is not required.  Under permit number PSD-FL-310, the permitted annual operating rate while firing 0.05 percent sulfur fuel oil is 576 hours per year for unit 2 and unit 3 combined.  Under the May 17, 2004 modification to Permit Number PSD-FL-310, the permitted annual operating rate while firing 0.0065 percent sulfur fuel oil is 1,478 hour per year for Unit 2 and Unit 3 combined with no short-term operational limits.  The 4,500 hours per year duct burner operating shown in Field 5 reflects the operating hours request included with this permit application.		

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]

**C. EMISSION POINT (STACK/VENT) INFORMATION  
(Optional for unregulated emissions units.)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: ID #23 on Plot Plan		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: One 190-foot vertical cylindrical exhaust stack associated with the CT/HRSG			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: N/A			
5. Discharge Type Code: V	6. Stack Height: 190 feet	7. Exit Diameter: 18.0 feet	
8. Exit Temperature: 204 °F	9. Actual Volumetric Flow Rate: 1,009,200 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: 790,100 dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 408.774 North (km): 3354.531		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Exit temperature and flow rate are with operation of the combustion turbine at 100 percent load on natural gas with the duct burner firing and at an ambient temperature of 59°F.			

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

**Segment Description and Rate:** Segment 1 of 4

1. Segment Description (Process/Fuel Type): Combustion turbine operating in combined cycle mode on natural gas. This unit is allowed to operate on natural gas for the entire year (i.e. 8,760 hours per year).		
2. Source Classification Code (SCC): 2-01-002-01	3. SCC Units: Million Cubic Feet Burned	
4. Maximum Hourly Rate: 1.98 (approx.)	5. Maximum Annual Rate: 16,200 (approx.)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 965 (HHV)
10. Segment Comment: Approximate fuel use rate calculations: (heat input at HHV)/(fuel HHV) = hourly rate (1,911 mmBtu/hr)/(965 mmBtu/million scf) = 1.98 million scf/hour [(1,785 mmBtu/hr)/(965 mmBtu/million scf)]x(8,760 hr/yr) = 16,204 million scf/yr Approximate fuel use rates are provided for informational purposes only and do not constitute limits. Actual fuel use rates are a function of the fuel heating value and the emission unit operating conditions.		

**Segment Description and Rate:** Segment 2 of 4

1. Segment Description (Process/Fuel Type): Combustion turbine operating in combined cycle mode on No. 2 distillate fuel oil. The maximum allowable hours of fuel oil firing for Unit 2 and Unit 3 combined is 576 hours per consecutive 12-month period (Permit No. PSD-FL-310).		
2. Source Classification Code (SCC): 2-01-001-01	3. SCC Units: Thousand Gallons Burned	
4. Maximum Hourly Rate: 14.8 (approx.)	5. Maximum Annual Rate: 8,040 (approx.)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.05	8. Maximum % Ash:	9. Million Btu per SCC Unit: 139 (HHV)
10. Segment Comment: Approximate fuel use rate calculations: (heat input at HHV)/(fuel HHV) = hourly rate (2,060 mmBtu/hr)/(139 mmBtu/kgal) = 14.82 kgal/hour [(1,939 mmBtu/hr)/(139 mmBtu/kgal)]x(576 hr/yr) = 8,035 kgal/yr The maximum annual rate is based on the assumption that combined Unit 2 and Unit 3 maximum allowable hours of fuel oil firing are all used in Unit 3. Actual fuel use rates are a function of the fuel heating value and the emission unit operating conditions. Approximate fuel use rates are provided for informational purposes only and do not constitute limits.		

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]

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

**Segment Description and Rate:** Segment 3 of 4

1. Segment Description (Process/Fuel Type): Combustion turbine operating in combined cycle mode on lower sulfur fuel oil (0.0065% sulfur, by weight). The maximum allowable hours of lower sulfur fuel oil firing for Unit 2 and Unit 3 combined is 1,478 hours per consecutive 12-month period.		
2. Source Classification Code (SCC): 2-01-001-01		3. SCC Units: Thousand Gallons Burned
4. Maximum Hourly Rate: 14.8 (approx.)	5. Maximum Annual Rate: 20,620 (approx.)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.0065	8. Maximum % Ash:	9. Million Btu per SCC Unit: 139 (HHV)
10. Segment Comment: Approximate fuel use rate calculations: (heat input at HHV)/(fuel HHV) = hourly rate (2,059 mmBtu/hr)/(139 mmBtu/kgal) = 14.81 kgal/hour [(1,939 mmBtu/hr)/(139 mmBtu/kgal)]x(1,478 hr/yr) = 20,618 kgal/yr The maximum annual rate is based on the assumption that combined Unit 2 and Unit 3 maximum allowable hours of lower sulfur fuel oil firing are all used in Unit 3. Actual fuel use rates are a function of the fuel heating value and the emission unit operating conditions. Approximate fuel use rates are provided for informational purposes only and do not constitute limits.		

**Segment Description and Rate:** Segment 4 of 4

1. Segment Description (Process/Fuel Type): Duct burner operating on natural gas.		
2. Source Classification Code (SCC):		3. SCC Units: Million Cubic Feet Burned
4. Maximum Hourly Rate: 0.21 (approx.)	5. Maximum Annual Rate: 932 (approx.)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 965 (HHV)
10. Segment Comment: Approximate fuel use rate calculations: (heat input at HHV)/(fuel HHV) = hourly rate Maximum hourly rate = (200 mmBtu/hr)/(965 mmBtu/mmscf) = 0.207 mmscf/hr Maximum annual rate = (0.207 mmscf/hr) x (4,500 hr/yr) = 932 mmscf/yr Fuel use rates are a function of operating conditions. Approximate fuel use rates are provided for informational purposes only and do not constitute limits.		



**EMISSIONS UNIT INFORMATION**

Section [2] of [2]

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>NOX</b>	<b>139</b>	<b>205, 028</b>	<b>EL</b>
<b>CO</b>			<b>EL</b>
<b>VOC</b>			<b>EL</b>
<b>SO2</b>			<b>WP</b>
<b>PM</b>			<b>EL</b>
<b>PM10</b>			<b>EL</b>

**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: NOX		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 119.37 lb/hour      136.66 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference:		7. Emissions Method Code: 5	
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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
<p>10. Calculation of Emissions:</p> <p>Highest hourly emissions for combined cycle operation:                      Natural gas = 24.95 lb/hr @ 20°F (w/out duct burner) and 24.03 @ 59°F (with duct burner)                      23.32 lb/hr @ 59°F (without duct burner)                      Fuel oil = 119.37 lb/hr max @ 20°F and 112.41 lb/hr @ 59°F (w/out duct burner)</p> <p>Potential annual emissions:                      Potential annual emissions are based on operation at 100% load and 59°F and the maximum allowable hours of lower sulfur fuel oil (0.0065% sulfur) firing for Unit 2 and Unit 3 combined of 1,478 hours per consecutive 12-month period and maximum proposed duct burner operation of 4,500 hours per year. For this calculation, it is assumed that the allowable hours of fuel oil firing are evenly split between Unit 2 and Unit 3. Therefore, worst-case annual NOx emissions are with 739 hours of operation on the lower sulfur fuel oil, 4,500 hours of operation on natural gas with duct firing and 3,521 hour of operation on natural gas without duct firing.                      Annual emissions = [(24.03 lb/hr) x (4,500 hr/yr) + (23.32 lb/hr) x (3,521 hr/yr) + (112.41 lb/hr) x (739 hr/yr)] / (2,000 lb/ton) = 136.66 ton/yr</p>			
<p>11. Potential, Fugitive, and Actual Emissions Comment: The potential hourly and annual emissions are for informational purposes only and do not constitute limits. If all of the Unit 2 and Unit 3 combined allowable hours of fuel oil firing were used in Unit 3, the annual potential emissions would be greater than shown. However, the annual potential emissions for Unit 2 would then decrease by an equal amount.</p>			

**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

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 3.5 ppmvd @15% O <sub>2</sub> on a 3-hour block avg	4. Equivalent Allowable Emissions: 25 lb/hour                      109.5 tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 apply when firing natural gas. The allowable emissions level is BACT and is found in Permit No. PSD-FL-310. The pound per hour and ton per year equivalent emissions rates are given for informational purposes only and do not constitute limits. The annual equivalent allowable emissions conservatively assume operation at the maximum lb/hr emissions rate (@ 20°F ambient temperature and no duct firing).	

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 15.0 ppmvd @15% O <sub>2</sub> on a 3-hour block average	4. Equivalent Allowable Emissions: 119.4 lb/hour                      41.5 tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 applies when firing fuel oil. The allowable emissions level is BACT and is found in Permit No. PSD-FL-310. The pound per hour and ton per year equivalent emissions rates are given for informational purposes only and do not constitute limits.	

**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: lb/hour                      tons/year
5. Method of Compliance:	
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: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 72.43 lb/hour      238.89 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference:		7. Emissions Method Code: 5	
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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Highest hourly emissions for combined cycle operation: Natural gas = 65.58 lb/hr @ 95°F and 55.68 lb/hr @ 59°F (with duct burner) and 50.29 lb/hr @ 59°F (w/out duct burners) Fuel oil = 72.43 lb/hr @ 20°F and 67.86 lb/hr @ 59°F (w/out duct burner) Potential annual emissions: Potential annual emissions are based on operation at 100% load and 59°F and the maximum allowable hours of lower sulfur fuel oil (0.0065% sulfur) firing for Unit 2 and Unit 3 combined of 1,478 hours per consecutive 12-month period. For this calculation, it is assumed that these hours of operation are evenly split between Unit 2 and Unit 3. Therefore, worst-case annual CO emissions are with 739 hours of operation on the lower sulfur fuel oil, 4,500 hours of operation on natural gas with duct firing and 3,521 hour of operation on natural gas without duct firing. Annual emissions = [(55.68 lb/hr) x (4,500 hr/yr) + (50.29 lb/hr) x (3,521 hr/yr) + (67.86 lb/hr) x (739 hr/yr)] / (2,000 lb/ton) = 238.89 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: The potential hourly and annual emissions are for informational purposes only and do not constitute limits. If all of the Unit 2 and Unit 3 combined allowable hours of fuel oil firing were used in Unit 3, the annual potential emissions would be greater than shown. However, the annual potential emissions for Unit 2 would then decrease by an equal amount.			

**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 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 14 ppmvd @15% O <sub>2</sub> on a 24-hour block average	4. Equivalent Allowable Emissions: 72.4 lb/hour      238.9 tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions level in Field 3 applies when firing natural gas or fuel oil. The allowable emissions level is BACT and is found in Permit No. PSD-FL-310. The pound per hour and ton per year equivalent emissions rates are given for informational purposes only and do not constitute limits.	

**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: lb/hour      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**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: lb/hour      tons/year
5. Method of Compliance:	
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/PM10		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 62.1 lb/hour                      102.31 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference:		7. Emissions Method Code:	
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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Highest hourly emissions for combined cycle operation: Natural gas = 22.02 lb/hr (permit limit), 20.17 lb/hr @ 59°F (with duct burner), and 19.30 lb/hr @ 59°F (w/out duct burner) Fuel oil = 62.1 lb/hr (w/out duct burner) (permit limit) Potential annual emissions: Potential annual emissions are based on operation at 100% load and 59°F and the maximum allowable hours of lower sulfur fuel oil (0.0065% sulfur) firing for Unit 2 and Unit 3 combined of 1,478 hours per consecutive 12-month period. For this calculation, it is assumed that these hours of operation are evenly split between Unit 2 and Unit 3. Therefore, worst-case annual PM/PM <sub>10</sub> emissions are with 739 hours of operation on the lower sulfur fuel oil, 4,500 hours of operation on natural gas with duct firing and 3,521 hour of operation on natural gas without duct firing. Annual emissions = [(20.17 lb/hr) x (4,500 hr/yr) + (19.30 lb/hr) x (3,521 hr/yr) + (62.1 lb/hr) x (739 hr/yr)] / (2,000 lb/ton) = 102.31 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: Hourly emissions are given in Permit No. PSD-FL-310 and the June 5, 2003 modification to Permit No. PSD-FL-310. The potential annual emissions are for informational purposes only and do not constitute limits. If all of the Unit 2 and Unit 3 combined allowable hours of fuel oil firing were used in Unit 3, the annual potential emissions would be greater than shown. However, the annual potential emissions for Unit 2 would then decrease by an equal amount.			

**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

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 22.02 lb/hr	4. Equivalent Allowable Emissions: 22.0 lb/hour      96.4 tons/year
5. Method of Compliance: Compliance demonstrated by opacity	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions rate in Field 3 applies when firing natural gas. The allowable emissions and method of compliance are from Permit No. PSD-FL-310 and the June 5, 2003 modification to Permit No. PSD-FL-310. The ton per year equivalent emissions rate is given for informational purposes only and does not constitute a limit.	

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 62.1 lb/hr	4. Equivalent Allowable Emissions: 62.1 lb/hour      22.9 tons/year
5. Method of Compliance: Compliance demonstrated by opacity	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions rate in Field 3 applies when firing fuel oil. The allowable emissions and method of compliance are found in Permit No. PSD-FL-310. The ton per year equivalent emissions rate is given for informational purposes only and does not constitute a limit. For the tons per year equivalent emissions rate, it is assumed that the allowable annual hours of fuel oil firing operation for Unit 2 and Unit 3 combined are evenly split between Unit 2 and Unit 3.	

**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: lb/hour      tons/year
5. Method of Compliance:	
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: SO <sub>2</sub>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 109.35 lb/hour          63.86 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference:		7. Emissions Method Code:	
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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
<p>10. Calculation of Emissions:</p> <p>Highest hourly emissions for combined cycle operation:                      Natural gas (2 grains sulfur per 100 scf) = 12.2 lb/hr @ 20°F (w/out duct burner), 11.73 lb/hr @ 59°F (with duct burner), and 11.40 lb/hr @ 59°F (w/out duct burner)                      Fuel oil (0.05% sulfur) = 109.35 lb/hr @ 20°F and 102.97 lb/hr @ 59°F (w/out duct burner)                      Lower sulfur fuel oil (0.0065% sulfur) = 14.22 lb/hr @ 20°F and 13.39 @ 59°F</p> <p>Potential annual emissions:                      Worst case potential annual emissions are based on operation at 100% load and 59°F and the maximum allowable hours of 0.05% sulfur fuel oil firing for Unit 2 and Unit 3 combined of 576 hours per consecutive 12-month period. It is assumed that these hours of operation are evenly split between Unit 2 and Unit 3. Therefore, worst-case annual SO<sub>2</sub> emissions are with 288 hours of operation on 0.05% sulfur fuel oil, 4,500 hours of operation on natural gas with duct firing and 3,972 hour of operation on natural gas without duct firing.                      Annual emissions = [(11.73 lb/hr) x (4,500 hr/yr) + (11.40 lb/hr) x (3,972 hr/yr) + (102.97 lb/hr) x (288 hr/yr)] / (2,000 lb/ton) = 63.86 ton/yr                      Note that potential annual SO<sub>2</sub> emissions are less with the lower sulfur fuel oil (0.0065% sulfur) operating scenario.</p>			
11. Potential, Fugitive, and Actual Emissions Comment: The potential hourly and annual emissions are for informational purposes only and do not constitute limits. If all of the Unit 2 and Unit 3 combined allowable hours of fuel oil firing were used in Unit 3, the annual potential emissions would be greater than shown. However, the annual potential emissions for Unit 2 would then decrease by an equal amount.			



**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 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: Use of pipeline natural gas	4. Equivalent Allowable Emissions: 12.2 lb/hour      50.7 tons/year
5. Method of Compliance: Natural gas supplier tariff sheet	
6. Allowable Emissions Comment (Description of Operating Method): The pound per hour and tons per year equivalent emissions rates are given for informational purposes only and do not constitute limits.	

**Allowable Emissions** Allowable Emissions 2 of 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.05% sulfur, by weight, in the fuel oil	4. Equivalent Allowable Emissions: 109.4 lb/hour      14.8 tons/year
5. Method of Compliance: Fuel analysis	
6. Allowable Emissions Comment (Description of Operating Method): The pound per hour and tons per year equivalent emissions rates are given for informational purposes only and do not constitute limits. For the tons per year equivalent emissions rate, it is assumed that the allowable annual hours of fuel oil firing operation for Unit 2 and Unit 3 combined are evenly split between Unit 2 and Unit 3.	

**Allowable Emissions** Allowable Emissions 3 of 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.0065% sulfur, by weight, in the lower sulfur fuel oil	4. Equivalent Allowable Emissions: 14.2 lb/hour      4.9 tons/year
5. Method of Compliance: Fuel analysis	
6. Allowable Emissions Comment (Description of Operating Method): The fuel sulfur level given in Field 1 represents the alternate operating scenario allowed per the May 17, 2004 revision to Permit No. PSD-FL-310. The pound per hour and tons per year equivalent emissions rates are given for informational purposes only and do not constitute limits. For the tons per year equivalent emissions rate, it is assumed that the allowable annual hours of fuel oil firing operation for Unit 2 and Unit 3 combined are evenly split between Unit 2 and Unit 3.	

**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 4 of 4

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.8% sulfur, by weight, in the fuel oil	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: Fuel analysis	
6. Allowable Emissions Comment (Description of Operating Method): Rule: NSPS 40 CFR 60.334(b) Subpart GG – Standards of Performance for Stationary Gas Turbines	

**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: lb/hour                      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**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: lb/hour                      tons/year
5. Method of Compliance:	
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: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 7.68 lb/hour                      17.57 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference:		7. Emissions Method Code:	
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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Maximum hourly emissions: Natural gas = 6.81 lb/hr (with duct burner) (permit limit), 4.24 lb/hr @ 59°F (with duct burner) and 4.0 lb/hr (w/out duct burner) (permit limit), 2.95 lb/hr @ 59°F (w/out duct burner) Fuel oil = 7.68 lb/hr @ 59°F (w/out duct burner) (permit limit) Potential annual emissions: Potential annual emissions are based on the maximum allowable hours of fuel oil firing for Unit 2 and Unit 3 combined with lower sulfur fuel oil (0.0065% sulfur) of 1,478 hours per consecutive 12-month period with these hours of operation evenly split between Unit 2 and Unit 3. Therefore, worst-case annual VOC emissions are with 739 hours of operation on the lower sulfur fuel oil, 4,500 hours of operation on natural gas with duct firing and 3,521 hour of operation on natural gas without duct firing. Annual emissions = [(4.24 lb/hr) x (4,500 hr/yr) + (2.95 lb/hr) x (3,521 hr/yr) + (7.68 lb/hr) x (739 hr/yr)] / (2,000 lb/ton) = 17.57 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: The potential annual emissions are for informational purposes only and do not constitute limits. If all of the Unit 2 and Unit 3 combined allowable hours of fuel oil firing were used in Unit 3, the annual potential emissions would be greater than shown. However, the annual potential emissions for Unit 2 would than decrease by an equal amount.			

**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

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 6.81 lb/hr	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: EPA Method 18, 25 or 25A; CO CEMS as a surrogate	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions rate in Field 3 applies when firing natural gas. The allowable emissions rate is found in Permit No. PSD-FL-310 and the June 5, 2003 modification to Permit No. PSD-FL-310.	

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 7.68 lb/hr	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: EPA Method 18, 25 or 25A; CO CEMS as a surrogate	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions rate in Field 3 applies when firing fuel oil. The allowable emissions rate is found in Permit No. PSD-FL-310.	

**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: lb/hour                      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]

**G. VISIBLE EMISSIONS INFORMATION**

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

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE10	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 10 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: This visible emissions limit is included in Permit No. PSD-FL-310. Per Construction Permit No. PSD-FL-310 excess emissions resulting from startup, shutdown, or malfunction are permitted provided that best operational practices are adhered to and the period of excess emissions are minimized.	

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_ of \_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]

**H. CONTINUOUS MONITOR INFORMATION****Complete if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor 1 of 3

1. Parameter Code: EM	2. Pollutant(s): NOX
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: TECO Model Number: 42CLS Serial Number: 42CLS-78404-389	
5. Installation Date: 12/15/2004	6. Performance Specification Test Date: 12/15/2004
7. Continuous Monitor Comment: Rule: 40 CFR 60 and 40 CFR Part 75. Use of CEMS is required by Construction Permit No. PSD-FL-310.	

**Continuous Monitoring System:** Continuous Monitor 2 of 2

1. Parameter Code: EM	2. Pollutant(s): CO
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Use of CEMS is required by Construction Permit No. PSD-FL-310.	

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]

**H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**

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

**Continuous Monitoring System:** Continuous Monitor 3 of 3

1. Parameter Code: CO2	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: CAI Model Number: 100	Serial Number: PO3049
5. Installation Date: 12/15/2004	6. Performance Specification Test Date: 12/15/2004
7. Continuous Monitor Comment: Use of CEMS is required by Construction Permit No. PSD-FL-310.	

**Continuous Monitoring System:** Continuous Monitor \_\_\_ of \_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]

**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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. B</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. F</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. G</u> <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. H</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____  <input checked="" type="checkbox"/> Previously Submitted, Date: <u>1/14/05</u> Test Date(s)/Pollutant(s) Tested: _____  <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____  <input type="checkbox"/> 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 <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable



**EMISSIONS UNIT INFORMATION**

**Section [2] of [2]**

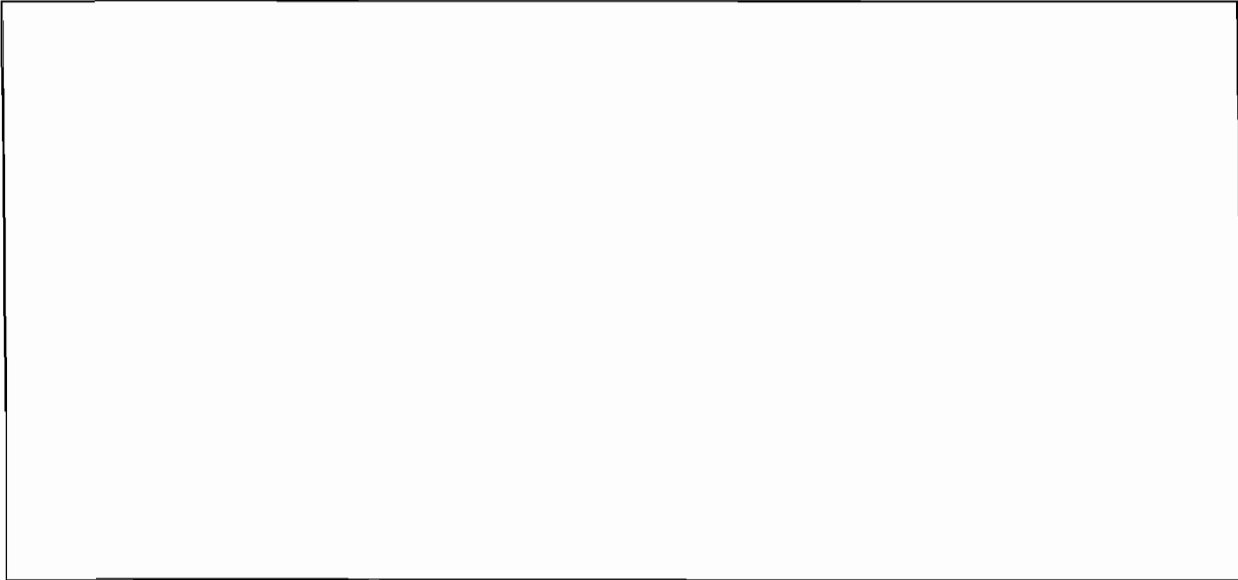
**Additional Requirements for Air Construction Permit Applications**

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)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> 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.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**Additional Requirements for Title V Air Operation Permit Applications**

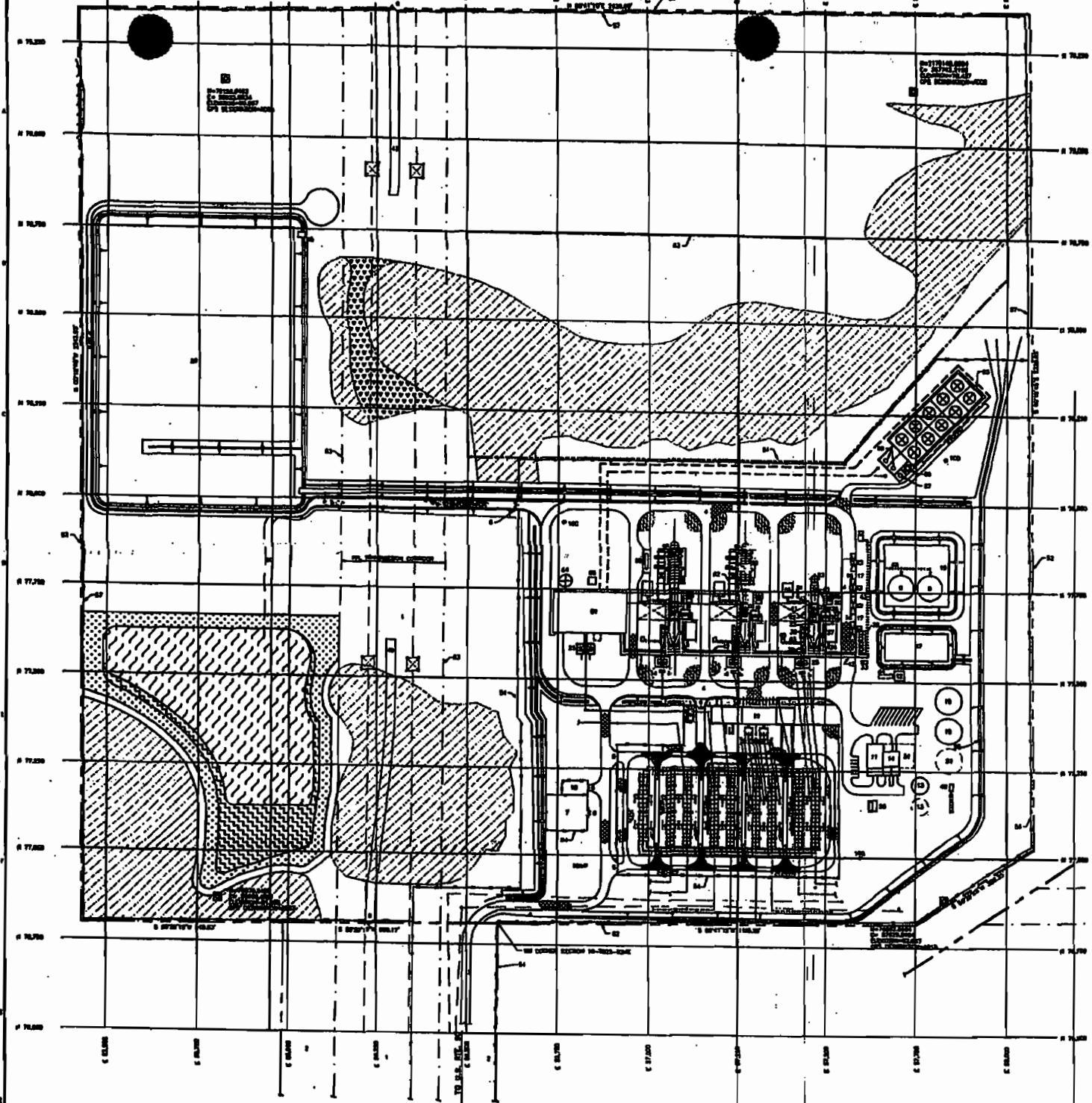
1. Identification of Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. I</u>
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. J</u> <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input checked="" type="checkbox"/> Copy Attached, Document ID: <u>Attach. K</u> <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attach. K</u> <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

**Additional Requirements Comment**



**Attachment A**

**Facility Plot Plan**



ITEM NO	DESCRIPTION	LOCATED COMMENTS	INTERIOR TOLERANCE
1	1/4" DIA. BRASS VALVE	1/4" DIA	
2	1/4" DIA. BRASS VALVE	1/4" DIA	
3	1/4" DIA. BRASS VALVE	1/4" DIA	
4	1/4" DIA. BRASS VALVE	1/4" DIA	
5	1/4" DIA. BRASS VALVE	1/4" DIA	
6	1/4" DIA. BRASS VALVE	1/4" DIA	
7	1/4" DIA. BRASS VALVE	1/4" DIA	
8	1/4" DIA. BRASS VALVE	1/4" DIA	
9	1/4" DIA. BRASS VALVE	1/4" DIA	
10	1/4" DIA. BRASS VALVE	1/4" DIA	
11	1/4" DIA. BRASS VALVE	1/4" DIA	
12	1/4" DIA. BRASS VALVE	1/4" DIA	
13	1/4" DIA. BRASS VALVE	1/4" DIA	
14	1/4" DIA. BRASS VALVE	1/4" DIA	
15	1/4" DIA. BRASS VALVE	1/4" DIA	
16	1/4" DIA. BRASS VALVE	1/4" DIA	
17	1/4" DIA. BRASS VALVE	1/4" DIA	
18	1/4" DIA. BRASS VALVE	1/4" DIA	
19	1/4" DIA. BRASS VALVE	1/4" DIA	
20	1/4" DIA. BRASS VALVE	1/4" DIA	
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22	1/4" DIA. BRASS VALVE	1/4" DIA	
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27	1/4" DIA. BRASS VALVE	1/4" DIA	
28	1/4" DIA. BRASS VALVE	1/4" DIA	
29	1/4" DIA. BRASS VALVE	1/4" DIA	
30	1/4" DIA. BRASS VALVE	1/4" DIA	
31	1/4" DIA. BRASS VALVE	1/4" DIA	
32	1/4" DIA. BRASS VALVE	1/4" DIA	
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34	1/4" DIA. BRASS VALVE	1/4" DIA	
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41	1/4" DIA. BRASS VALVE	1/4" DIA	
42	1/4" DIA. BRASS VALVE	1/4" DIA	
43	1/4" DIA. BRASS VALVE	1/4" DIA	
44	1/4" DIA. BRASS VALVE	1/4" DIA	
45	1/4" DIA. BRASS VALVE	1/4" DIA	
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50	1/4" DIA. BRASS VALVE	1/4" DIA	
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52	1/4" DIA. BRASS VALVE	1/4" DIA	
53	1/4" DIA. BRASS VALVE	1/4" DIA	
54	1/4" DIA. BRASS VALVE	1/4" DIA	
55	1/4" DIA. BRASS VALVE	1/4" DIA	
56	1/4" DIA. BRASS VALVE	1/4" DIA	
57	1/4" DIA. BRASS VALVE	1/4" DIA	
58	1/4" DIA. BRASS VALVE	1/4" DIA	
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60	1/4" DIA. BRASS VALVE	1/4" DIA	
61	1/4" DIA. BRASS VALVE	1/4" DIA	
62	1/4" DIA. BRASS VALVE	1/4" DIA	
63	1/4" DIA. BRASS VALVE	1/4" DIA	
64	1/4" DIA. BRASS VALVE	1/4" DIA	
65	1/4" DIA. BRASS VALVE	1/4" DIA	
66	1/4" DIA. BRASS VALVE	1/4" DIA	
67	1/4" DIA. BRASS VALVE	1/4" DIA	
68	1/4" DIA. BRASS VALVE	1/4" DIA	
69	1/4" DIA. BRASS VALVE	1/4" DIA	
70	1/4" DIA. BRASS VALVE	1/4" DIA	

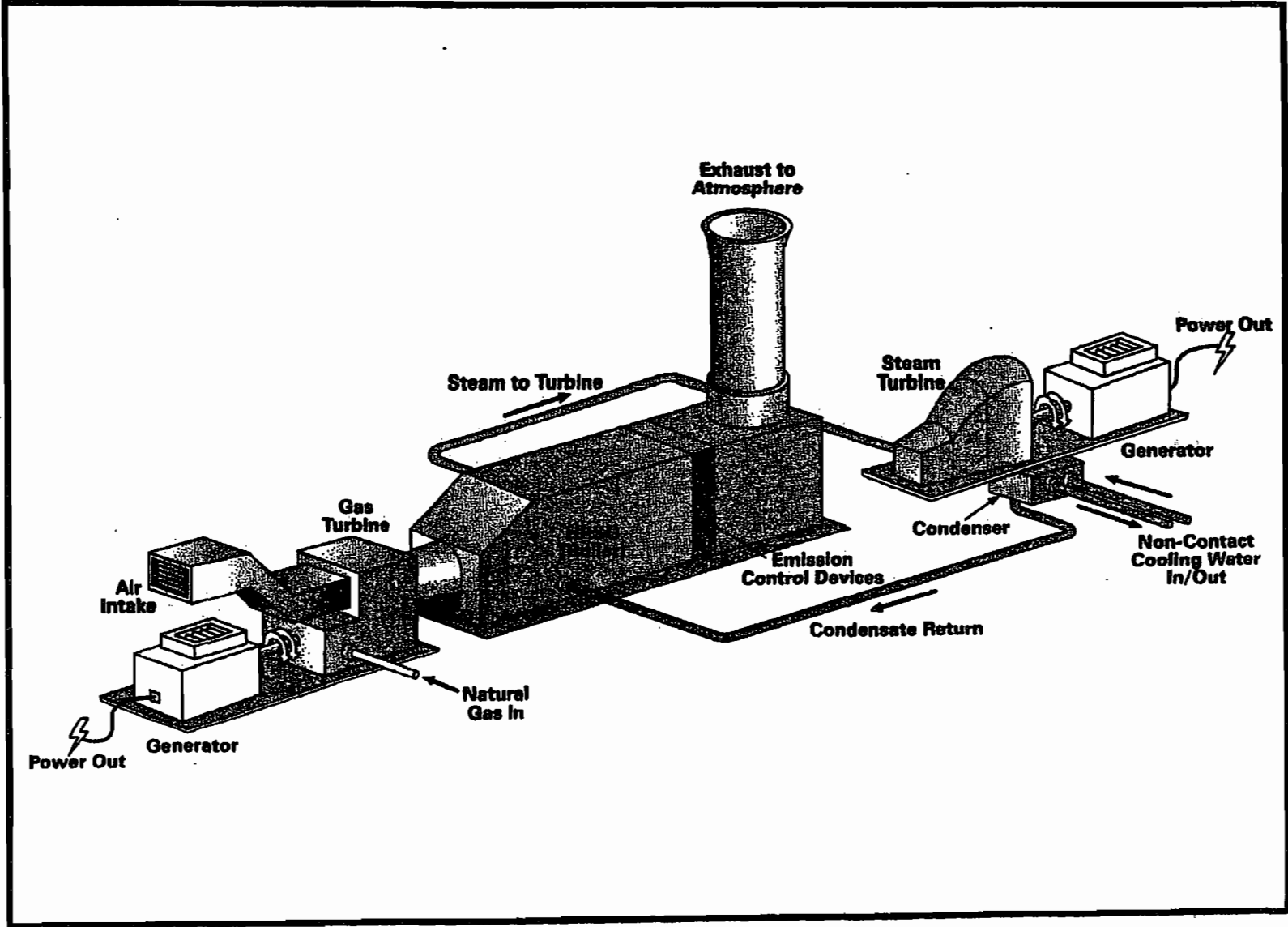
**GENERAL LEGEND**

- [Symbol] PUMPHOUSE
- [Symbol] PUMP FACILITY
- [Symbol] SEALS
- [Symbol] COVERED CONCRETE AREA
- [Symbol] GRAVEL
- [Symbol] ASPHALT ROAD SURFACING
- [Symbol] UNGRAVELLED CONCRETE AREA
- [Symbol] ASPHALT PAVING AREA
- [Symbol] RECREATION MEADOWS AREA
- [Symbol] SOFTWOOD

NOT TO BE USED FOR CONSTRUCTION

**Attachment B**

**Process Flow Diagrams**



**Attachment C**

**Precautions to Prevent Emissions of Unconfined Particulate Matter**

## **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;
- Sandblasting abrasive material from facility maintenance activities.

Several precautions were taken to prevent emissions of particulate matter in the original design of the facility. These include:

- Paving of roads, parking areas and equipment yards;
- Landscaping and planting of vegetation.

Operational measures are undertaken at the facility which also minimize particulate emissions, in accordance with Rule 62-296.320(4)(c) F.A.C.:

- Maintenance of paved areas as needed;
- Regular mowing of grass and care of vegetation;
- Limiting access to plant property for unnecessary vehicles.



**Attachment D**

**Description of Proposed Modification**

### **Description of Proposed Modification**

Physical modifications of the facility are not requested as part of this permit application. Minor changes to construction permit PSD-FL-310 are requested with this application. See the letter report accompanying this application for a description of the proposed permit changes covered under this application.

**Attachment E**

**Rule Applicability Analysis**

## **Rule Applicability Analysis**

See the letter report accompanying this application for a discussion on rule applicability as it pertains to the requested permit changes.

**Attachment F**

**Fuel Analysis or Specification**

### **Fuel Analysis or Specification**

Fuel is specified as pipeline quality sweet natural gas, No. 2 distillate fuel oil containing no more than 0.05% sulfur and lower sulfur fuel oil containing no more than 0.0065% sulfur.

The lower sulfur fuel oil is expected to have the same specifications as the No. 2 low sulfur fuel oil, except the sulfur content will be a maximum 0.0065%, by weight.

**Attachment G**

**Detailed Description of Control Equipment**

## **Detailed Description of Control Equipment**

For Unit No. 1 with natural gas firing, low NO<sub>x</sub> burners will be used to control NO<sub>x</sub> emissions. For Unit No. 1 with fuel oil firing, water injection will be used to limit NO<sub>x</sub> emissions by lowering the combustion temperature. For further information on Unit No. 1 control equipment refer to the simple cycle combustion turbine PSD application submitted to FDEP in May 1999.

For Unit No. 2 and Unit No. 3 with natural gas firing, dry low NO<sub>x</sub> burners with an SCR will be used to limit NO<sub>x</sub> emissions. For Unit No. 2 and Unit No. 3 with fuel oil firing, water injection with an SCR will be used to limit NO<sub>x</sub> emissions. For further information on Unit No. 2 and Unit No. 3 control equipment refer to Appendix 10.7 – PSD Application of the Site Certification Application for the JEA Brandy Branch Combined Cycle Conversion submitted to FDEP in December 2000.



**Attachment H**

**Operation and Maintenance Plan**

## **Operation and Maintenance Plan**

The emission units will be operated and maintained in accordance with manufacturer's recommendations, operations and maintenance experience, and technical guidance taking into account protection of equipment, safety of personnel, and other factors as deemed necessary to maintain compliance with the permitted limits.

**Attachment I**

**Identification of Applicable Requirements**

## **Identification of Applicable Requirements**

### List of facility-wide applicable regulations

- Facility-wide applicable regulations specified in construction permit PSD-FL-310 are hereby incorporated by reference.
- Facility-wide applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.

### Unit 1 – List of applicable regulations

- Applicable regulations specified in existing Title V permit 0310485-005-AV for Unit 1 are hereby incorporated by reference, except as noted in the application support document.
- Emission unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.
- 40 CFR 60, Subpart A
- 40 CFR 60, Subpart GG
- 40 CFR 72
- 40 CFR 73
- 40 CFR 75
- 40 CFR 77
- 62-204.800(8)(c)
- 62-204.800(8)(d)
- 62-204.800(8)(b)39
- 62-204.800(8)(e)
- 62-204.800(16)
- 62-204.800(17)
- 62-204.800(18)
- 62-204.800(18)
- 62-214
- 62-297.401
- Jacksonville Environmental Protection Board, Rule 2
- Ordinance Code, City of Jacksonville, Title X, Chapter 376
- Ordinance Code, City of Jacksonville, Title V, Chapter 362

### Unit 2 – List of applicable regulations

- Applicable regulations specified in construction permit PSD-FL-310 for Unit 2 are hereby incorporated by reference, except as noted in the application support document.
- Emission unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.
- 40 CFR 60, Subpart A
- 40 CFR 60, Subpart GG
- 40 CFR 60, Subpart Db
- 40 CFR 72
- 40 CFR 73
- 40 CFR 75
- 40 CFR 77

- 62-204.800(8)(c)
- 62-204.800(8)(d)
- 62-204.800(8)(b)39
- 62-204.800(8)(b)3
- 62-204.800(8)(e)
- 62-204.800(16)
- 62-204.800(17)
- 62-204.800(18)
- 62-204.800(20)
- 62-214
- 62-297.401
- Jacksonville Environmental Protection Board, Rule 2
- Ordinance Code, City of Jacksonville, Title X, Chapter 376
- Ordinance Code, City of Jacksonville, Title V, Chapter 362

Unit 3 – List of applicable regulations

- Applicable regulations specified in construction permit PSD-FL-310 for Unit 3 are hereby incorporated by reference, except as noted in the application support document.
- Emission unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.
- 40 CFR 60, Subpart A
- 40 CFR 60, Subpart GG
- 40 CFR 60, Subpart Db
- 40 CFR 72
- 40 CFR 73
- 40 CFR 75
- 40 CFR 77
- 62-204.800(8)(c)
- 62-204.800(8)(d)
- 62-204.800(8)(b)39
- 62-204.800(8)(b)3
- 62-204.800(8)(e)
- 62-204.800(16)
- 62-204.800(17)
- 62-204.800(18)
- 62-204.800(20)
- 62-214
- 62-297.401
- Jacksonville Environmental Protection Board, Rule 2
- Ordinance Code, City of Jacksonville, Title X, Chapter 376
- Ordinance Code, City of Jacksonville, Title V, Chapter 362

**Attachment J**

**Alternative Methods of Operation**

## Alternative Methods of Operation

Emission Units 001, 002 and 003 can operate on pipeline quality natural gas, No. 2 distillate fuel oil (0.05 percent sulfur) and lower sulfur fuel oil (0.0065 percent sulfur)

The following operating limitations are for the operation of Units No. 1, No.2 and No. 3 on natural gas and/or 0.05% sulfur fuel oil. These are the currently permitted operational limits:

- Annual hours of operation:
  - Simple Cycle Unit (Unit No. 1)
    - 4,750 hours total.
    - 750 hours of operation firing either 0.05 percent sulfur fuel oil or very low sulfur fuel oil (0.0065 percent sulfur).
  - Combined Cycle Units (Unit No. 1 and Unit No. 2)
    - No limit on total annual hours of operation.
    - 576 total hours of operation with 0.05 percent sulfur fuel oil firing for Unit No. 2 and Unit No. 3 combined.
    - 1,478 total hours of operation with lower sulfur fuel oil (0.0065 percent sulfur) firing for Unit No. 2 and Unit No. 3 combined
  
- Short-term operational limits:
  - No daily limitations are required when firing only natural gas in Unit No.1, Unit No. 2 and Unit No. 3.
  - When any of the three combustion turbines (Unit No. 1, Unit No. 2 or Unit No. 3) fires 0.05 percent sulfur fuel oil during a calendar day that combustion turbine is limited to 16 hours of daily operation on any fuel for that calendar day. Also, the other two Units shall not be fired on any day in which 0.05 percent sulfur fuel oil is fired in one of the Units.
  - In the event that Unit 1 fires lower sulfur fuel oil (0.0065 percent sulfur) during any calendar day, but for 8 hours or less, the combined cycle units may fire any combination of lower sulfur oil (0.0065 percent sulfur) or natural gas during the calendar day.
  - In the event that Unit 1 fires lower sulfur fuel oil (0.0065 percent sulfur) for more than 8 hours during a calendar day, it shall be allowed 24 hours of daily operation while the combined cycle units shall not be fired on any fuel for that calendar day.

**Attachment K**

**Acid Rain Part Application**





December 30, 1999

Mr. Scott Sheplak, P.E.  
Title V Administrator  
Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RE: Brandy Branch Facility  
Acid Rain Application Forms

Dear Mr. Sheplak:

Enclosed please find the Acid Rain Application Forms for the Brandy Branch Facility.

If you have any questions with regard to this matter, please contact me at (904) 665-6247.

Sincerely,

N. Bert Gianazza, P.E.  
Environmental Permitting  
& Compliance Group

cc: USEPA  
USEPA, Region 4

bc: J. Connolly  
E. Mims  
L. Starner  
B. Gianazza  
File

bbacidrain

# Phase II Permit 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:  New  Revised

**STEP 1**

Identify the source by plant name, State, and ORIS code from NADB

Plant Name	<b>Brandy Branch</b>	State	<b>FL</b>	ORIS Code	<b>7846</b>
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**STEP 2** Enter the boiler ID# from NADB for each affected unit and indicate whether a repowering plan is being submitted for the unit by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e.

Compliance Plan				
a	b	c	d	e
Boiler ID#	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	Repowering Plan	New Units Commence Operation Date	New Units Monitor Certification Deadline
001	Yes		Dec. 2000	Dec. 2000
002	Yes		Dec. 2000	Dec. 2000
003	Yes		Dec. 2001	Dec. 2001
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

**STEP 3**

Check the box if the response in column c of Step 2 is "Yes" for any unit

For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering Technology Petition form has been submitted or will be submitted by June 1, 1997.

Plant Name (from Step 1) **Brandy Branch**

**STEP 4**  
 Add the standard requirements and certification, enter the name of the designated representative, and sign and date

**Standard Requirements**

Permit 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, 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 permitting authority determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain permit;
- (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 permitting authority; 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)) 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)(i) 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 permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 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 Administrator or permitting authority:
  - (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;
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and

Plant Name (from Step 1) **Brandy Branch**

Recordkeeping and Reporting Requirements (cont)

(M) 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.

Liability.

(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 a written 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 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, 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 a written exemption under 40 CFR 72.7 or 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;

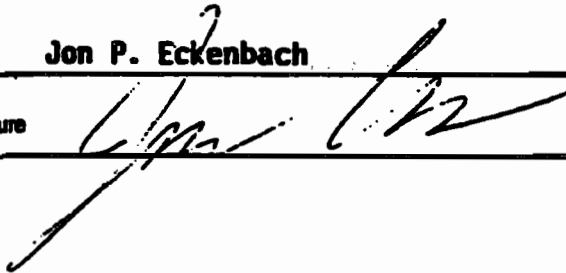
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(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.

Name	Jon P. Eckenbach	
Signature		Date 12-14-99

**STEP 5 (optional)**  
Enter the source AIRS  
FINDS identification

<b>AIRS</b>
<b>FINDS</b>



# Certificate of Representation

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 instructions)

This submission includes combustion or process sources under 40 CFR part 74

**STEP 1**  
Identify the source by plant name, State, and ORIS code.

Plant Name <b>Brandy Branch</b>	State <b>FL</b>	<b>7846</b> ORIS Code
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**STEP 2**  
Enter requested information for the designated representative.

Name <b>Jon P. Eckenbach</b>	
Address <b>21 West Church Street Jacksonville, Florida 32202</b>	
Phone Number <b>(904) 665-6315</b>	Fax Number <b>(904) 554-7366</b>
E-mail address (if available) <b>ecke.jp@jea.com</b>	

**STEP 3**  
Enter requested information for the alternate designated representative, if applicable.

Name <b>Tim E. Perkins</b>	
Phone Number <b>(904) 665-4520</b>	Fax Number <b>(904) 665-7376</b>
E-mail address (if available) <b>perkte@jea.com</b>	

**STEP 4**  
Complete Step 5, read the certifications, and sign and date. For a designated representative of a combustion or 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 combustion or process source is located.

I certify that I was selected as the designated representative or alternate designated representative, as applicable, by an agreement binding on the owners and operators of the affected source and each affected unit at the source.

I certify that I have given notice of the agreement, selecting me as the designated representative for the affected source and each 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 submissions.

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 title-of-the-unit, 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.

Plant Name (from Step 1) **Brandy Branch**

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.

	12-14-99
Signature (designated representative)	Date
	12-16-99
Signature (alternate designated representative)	Date

**STEP 5**  
Provide the name of every owner and operator of the source and identify each affected unit (or combustion or process source) they own and/or operate.

Name <b>JEA</b>					<input checked="" type="checkbox"/> Owner	<input type="checkbox"/> Operator
ID# 001	ID# 002	ID# 003	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

Name					<input type="checkbox"/> Owner	<input type="checkbox"/> Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

Name					<input type="checkbox"/> Owner	<input type="checkbox"/> Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

Name					<input type="checkbox"/> Owner	<input type="checkbox"/> Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
January 19, 2000

David B. Scrubs  
Secretary

Mr. N. Bert Gianazza, P.E.  
Environmental Permitting & Compliance Group  
Jacksonville Electric Authority  
21 West Church Street  
Jacksonville, FL 32202-3139

Re: Acid Rain Phase II Permit Application  
Brandy Branch Facility; ORIS Code: 7846

Dear Mr. Gianazza:

Thank you for your recent submission of the Acid Rain Phase II Permit Application for the subject facility. We have reviewed the document and found it to be complete.

Sincerely,

Scott M. Sheplak, P.E.  
Administrator  
Title V Section

cc: Jenny Jachim, EPA Region 4





# Certificate of Representation

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 instructions)

This submission includes combustion or process sources under 40 CFR part 74

### STEP 1

Identify the source by plant name, State, and ORIS code.

Plant Name	Brandy Branch	State	FL	7846 ORIS Code
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### STEP 2

Enter requested information for the designated representative.

Name		Jon P. Eckmanbach, Executive Vice President		
Address		21 West Church Street Jacksonville, FL 32202		
Phone Number	(904) 685-6315	Fax Number	(904) 685-7366	
E-mail address (if available) eckjap@jes.com				

### STEP 3

Enter requested information for the alternate designated representative, if applicable.

Name		Susan Hughes, Vice President		
Phone Number	(904) 685-6248	Fax Number	(904) 685-7378	
E-mail address (if available) hughes@jes.com				

### STEP 4

Complete Step 5, read the certifications, and sign and date. For a designated representative of a combustion or 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 combustion or process source is located.

I certify that I was selected as the designated representative or alternate designated representative, as applicable, by an agreement binding on the owners and operators of the affected source and each affected unit at the source.

I certify that I have given notice of the agreement, selecting me as the 'designated representative' for the affected source and each 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 submissions.

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-the-unit, 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.

Plant Name (from Step 1) **Brandy Branch**

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.

<i>[Signature]</i> Signature (designated representative)	11/14/00 Date
<i>[Signature]</i> Signature (alternate designated representative)	11/17/00 Date

**STEP 5**  
Provide the name of every owner and operator of the source and identify each affected unit (or combustion or process source) they own and/or operate.

Name <b>JEA</b>					<input checked="" type="checkbox"/> Owner	<input checked="" type="checkbox"/> Operator
ID# 1	ID# 2	ID# 3	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

Name					<input type="checkbox"/> Owner	<input type="checkbox"/> Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

Name					<input type="checkbox"/> Owner	<input type="checkbox"/> Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

Name					<input type="checkbox"/> Owner	<input type="checkbox"/> Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#