



21 West Church Street
Jacksonville, Florida 32202-3139

February 1, 2010

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FEB 09 2010

Ms. Trina L. Vielhauer, Chief Bureau of Air Regulation
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399

BUREAU OF AIR REGULATION

Attention: Mr. Jeffery N Koerner, P.E. Administrator of New Source Review Section

RE: Northside Generating Station/St. Johns River Power Park (SJRPP)
PSD-FL-010
Natural Gas Usage during Operation of Units 1 and 2

0316045-024-AC

Dear Mr. Koerner:

The attached air construction permit application is being submitted to the Department for the purpose of obtaining approval for the unrestricted use of natural gas in Units 1 and 2 up to the authorized heat input of 700 MMBtu/hr for each unit using natural gas igniters. JEA was authorized under construction permit No. 0310045-024-AC to install new fuel igniters in St. Johns River Power Park (SJRPP) Boiler Nos. 1 and 2 for the purpose of adding natural gas as an alternate fuel for startup, shutdown, low load operation, and flame stabilization. This authorization was issued by the Department by amending PSD-FL-010 Specific Condition. V.11. listed below:

“If at any time the permittee determines that it is appropriate to use supplemental fuel during periods of startup, shutdown, flame stabilization and low load operation, then No. 2 fuel oil and/or natural gas shall be used for the pulverized coal and petroleum coke-fired Boiler No. 1 or Boiler No. 2.”

By this application, JEA requests that this condition be amended to allow natural gas use during operation as follows:

“If at any time the permittee determines that it is appropriate to use supplemental fuel during operation, natural gas shall be used for the pulverized coal and petroleum coke-fired Boiler No. 1 or Boiler No. 2. During periods of startup, shutdown, flame stabilization and low load operation, and the permittee determine that it is appropriate, No. 2 fuel oil shall be used as a supplemental fuel for the pulverized coal and petroleum coke-fired Boiler No. 1 or Boiler No. 2.”

Since natural gas is the cleanest fossil fuel, the information in the application demonstrates that unrestricted use of natural gas will not result in an increase in emissions above Prevention of Significant Deterioration (PSD) emission thresholds.

If there are any further questions concerning this request please contact Mr. Bert Gianazza at (904) 665-6247 or our environmental consultant Mr. Kennard Kosky at (352) 336-5600. The Department's expeditious review of this request is appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "M Brost". The signature is fluid and cursive, with the first letter "M" being large and the last letter "t" having a long tail.

Michael J. Brost, P.E.
Vice-President, Electric Systems

Enclosures

cc: Mike Halpin, P.E., Siting Coordination Office



APPLICATION

AIR CONSTRUCTION PERMIT APPLICATION FOR ST. JOHNS RIVER POWER PARK

**Jacksonville Electric Authority
Jacksonville, Florida**

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BUREAU OF AIR REGULATION

**Prepared For: JEA
11201 New Berlin Road
Jacksonville, Florida 32226**

**Prepared By: Golder Associates Inc.
6026 NW 1st Place
Gainesville, FL 32607 USA**

**Distribution: 5 Copies – FDEP
5 Copies – JEA
2 Copies – Golder Associates Inc.**

January 2010

093-87718

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APPLICATION FOR AIR PERMIT

LONG FORM



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 an air construction permit:

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

Air Operation Permit – Use this form to apply for:

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

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To ensure accuracy, please see form instructions. FEB 09 2010

Identification of Facility

BUREAU OF AIR REGULATION

1. Facility Owner/Company Name: JEA	
2. Site Name: St. Johns River Power Park (SJRPP)	
3. Facility Identification Number: 0310045	
4. Facility Location... Street Address or Other Locator: 11201 New Berlin Road City: Jacksonville County: Duval Zip Code: 32226	
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	
3. Application Contact Telephone Numbers... Telephone: (904) 665-6247 ext. Fax: (904) 665-7376	
4. Application Contact E-mail Address: Giannb@jea.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 2/9/10	3. PSD Number (if applicable):
2. Project Number(s): 0310045-029-AC	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

Air Construction Permit

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- 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

Application for an air construction permit to allow natural gas as an alternative fuel for SJRPP Boiler Nos. 1 and 2 (EU IDs 016 and 017). New igniters have been authorized by construction permit No. 0310045-024-AC to allow natural gas as an alternative fuel for startup, shutdown, low load operation, and flame stabilization. The new igniters will continue to be used for this purpose as well as maintain load and other purposes deemed necessary for the efficient and effective operation of Boiler Nos. 1 and 2.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
016	SJRPP Boiler No. 1	AC1C	N/A
017	SJRPP Boiler No. 2	AC1C	N/A


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 : Michael J. Brost, V.P., Electric System
2. Owner/Authorized Representative Mailing Address... Organization/Firm: JEA Street Address: 21 West Church Street City: Jacksonville State: FL Zip Code: 33202
3. Owner/Authorized Representative Telephone Numbers... Telephone: (904) 665-6537 ext. Fax: ()
4. Owner/Authorized Representative E-mail Address: brosmj@jea.com
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.</i>  Signature <u>2-1-10</u> Date

APPLICATION INFORMATION

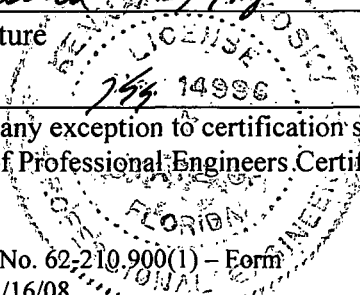
Application Responsible Official Certification

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

1. Application Responsible Official Name:			
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 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, CAIR source, or Hg Budget source.			
3. Application Responsible Official Mailing Address...			
Organization/Firm:			
Street Address:			
City:	State:	Zip Code:	
4. Application Responsible Official Telephone Numbers...			
Telephone: ()	-	ext.	Fax: () -
5. Application Responsible Official E-mail Address:			
6. Application Responsible Official Certification:			
<p>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.</p>			
_____ Signature		_____ Date	

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: Kennard F. Kosky Registration Number: 14996
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 6026 NW 1st Place City: Gainesville State: FL Zip Code: 32607
3. Professional Engineer Telephone Numbers... Telephone: (352) 336-5600 ext. 21156 Fax: (352) 336-6603
4. Professional Engineer E-mail Address:
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 checked="" 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 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 <u><i>Kennard F. Kosky</i></u> Date <u><i>2/1/10</i></u> (seal) 

* Attach any exception to certification statement.

**Board of Professional Engineers Certificate of Authorization #00001670.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone 17 East (km) 446.90 North (km) 3359.15		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) 30/21/52 Longitude (DD/MM/SS) 81/37/25	
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	6. Facility SIC(s): 4911
7. Facility Comment : The facility includes the JEA Northside Generating Station and SJRPP.			

Facility Contact

1. Facility Contact Name: Bruce W. Kofler, Manager of Environmental Compliance
2. Facility Contact Mailing Address... Organization/Firm: SJRPP Street Address: 11201 New Berlin Road <div style="display: flex; justify-content: space-between; margin-top: 5px;"> City: Jacksonville State: FL Zip Code: 32226 </div>
3. Facility Contact Telephone Numbers: Telephone: (904) 665-7886 ext. Fax: (904) 665-8719
4. Facility Contact E-mail Address: KoflBW@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: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> City: State: Zip Code: </div>
3. Facility Primary Responsible Official Telephone Numbers... Telephone: () ext. Fax: ()
4. Facility Primary Responsible Official E-mail Address:

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 checked="" 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: SJRPP Units 1 and 2 are subject to 40 CFR 60 Subpart Da.	

List of Pollutants Emitted by Facility

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

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's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

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

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 type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>July 2008</u>
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 type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>July 2008</u>
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 type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>July 2008</u>

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>Part II</u>
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: <u>Part II</u>
4. List of Exempt Emissions Units: <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

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units:
 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 Onsite 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: _____ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid Rain Program Forms:

Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):

Attached, Document ID: _____ Previously Submitted, Date: July 2008

Not Applicable (not an Acid Rain source)

Phase II NO_x Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):

Attached, Document ID: _____ Previously Submitted, Date: July 2008

Not Applicable

New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):

Attached, Document ID: _____ Previously Submitted, Date: _____

Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):

Attached, Document ID: _____ Previously Submitted, Date: July 2008

Not Applicable (not a CAIR source)

3. Hg Budget Part (DEP Form No. 62-210.900(1)(c)):

Attached, Document ID: _____ Previously Submitted, Date: _____

Not Applicable (not a Hg Budget unit)

Additional Requirements Comment

Empty box for Additional Requirements Comment.

EMISSIONS UNIT INFORMATION

Section [1]

SJRPP Boiler Nos. 1&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 an initial, revised or renewal 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. 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 an 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 or 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. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes 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]
SJRPP Boiler Nos. 1&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:
St. Johns River Power Park Units 1 and 2

3. Emissions Unit Identification Number: **016 and 017**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date: 12/86	7. Emissions Unit Major Group SIC Code: 49
--	--------------------------------	--	--

8. Federal Program Applicability: (Check all that apply)
- Acid Rain Unit
- CAIR Unit
- Hg Budget Unit

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: **679.6 MW**

11. Emissions Unit Comment:
Initial Startup Date for Unit 1 as the commercial operation date. Unit 2 began commercial operation in March 1988. Generator Nameplate Rating is nominal and for each unit.

EMISSIONS UNIT INFORMATION

Section [1]

SJRPP Boiler Nos. 1&2

Emissions Unit Control Equipment/Method: Control 1 of 4

1. Control Equipment/Method Description:
Electrostatic Precipitator (ESP) for PM control

2. Control Device or Method Code: **010**

Emissions Unit Control Equipment/Method: Control 2 of 4

1. Control Equipment/Method Description:
Flue Gas Desulfurization (FGD) for SO2 control

2. Control Device or Method Code: **039**

Emissions Unit Control Equipment/Method: Control 3 of 4

1. Control Equipment/Method Description:
Low NOx Burners (LNB), overfire air, and Selective Catalytic Reduction (SCR) system for NOx control

2. Control Device or Method Code: **139, 204, and 205**

Emissions Unit Control Equipment/Method: Control 4 of 4

1. Control Equipment/Method Description:
Ammonia injection for sulfuric acid mist (SAM) control

2. Control Device or Method Code: **032**

EMISSIONS UNIT INFORMATION

**Section [1]
SJRPP Boiler Nos. 1&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: 12,288 million Btu/hr
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: 24 hours/day 7 days/week 52 weeks/year 8,760 hours/year
6. Operating Capacity/Schedule Comment: Maximum heat input rate for each unit is 6,144 MMBtu/hr . Maximum heat input rate for each unit is 700 MMBtu/hr for natural gas firing (28 igniters x 25 MMBtu/hr each).

EMISSIONS UNIT INFORMATION

Section [1]

SJRPP Boiler Nos. 1&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: EU016 and EU017		2. Emission Point Type Code:	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 640 feet	7. Exit Diameter: 22.3 feet	
8. Exit Temperature: 156°F	9. Actual Volumetric Flow Rate: 1,800,000 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Stack parameters based on Title V revision application submitted August 10, 2009. Stack parameters are for each unit. Each unit exhausts through its own flue but through a common stack.			

EMISSIONS UNIT INFORMATION

Section [1]
 SJRPP Boiler Nos. 1&2

D. SEGMENT (PROCESS/FUEL) INFORMATION**Segment Description and Rate: Segment 1 of 4**

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Petroleum Coke Co-firing up to 30 percent petroleum coke with coal		
2. Source Classification Code (SCC): 1-01-008-01		3. SCC Units: Tons burned
4. Maximum Hourly Rate: 150.0	5. Maximum Annual Rate: 1,314,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash: 9	9. Million Btu per SCC Unit: 28
10. Segment Comment: Co-firing of maximum 30% petroleum coke by weight with coal. Maximum rates are total for both units. Maximum rates are based on petroleum coke burning limit of 150,000 lb/hr, 30-day rolling average. Petroleum coke heat content based on 14,000 Btu/lb.		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Bituminous/Subbituminous Coal; Pulverized Coal: Dry Bottom		
2. Source Classification Code (SCC): 1-01-002-02		3. SCC Units: Tons burned
4. Maximum Hourly Rate: 491.52	5. Maximum Annual Rate: 4,305,715	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 4	8. Maximum % Ash: 18	9. Million Btu per SCC Unit: 25
10. Segment Comment: Maximum rates are total for both units.		

EMISSIONS UNIT INFORMATION

Section [1]
 SJRPP Boiler Nos. 1&2

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

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Natural-Gas Boilers >100 MMBtu/hr		
2. Source Classification Code (SCC): 1-01-006-01	3. SCC Units: Million cubic feet natural gas burned	
4. Maximum Hourly Rate: 1.37	5. Maximum Annual Rate: 12,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1,022
10. Segment Comment: Each unit maximum hourly rate = 700 MMBtu/hr / 1022 MMBtu/MM ft ³ = 0.685 MM ft ³ /hr Each unit maximum annual rate = 0.685 MM ft ³ /hr x 8,760 hrs/yr = 6,000 MM ft ³ /yr Maximum rates are total for both units.		

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Distillate Oil - Grades 1 or 2 oil		
2. Source Classification Code (SCC): 1-01-005-01	3. SCC Units: 1,000 Gallons burned	
4. Maximum Hourly Rate: 14.2	5. Maximum Annual Rate: 124,392	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.76	8. Maximum % Ash: 0.01	9. Million Btu per SCC Unit: 138
10. Segment Comment: Maximum rates are total for both units. Each unit maximum hourly rate = 980 MMBtu/hr /138 MMBtu/1,000 gallon = 7.1x10 ³ gallons/hr. Maximum annual rate = 7.1x10 ³ gallons/hr x 8,760 hr/yr = 62,196x10 ³ gallons/yr. No. 2 fuel oil used during startup only. Maximum hourly rate of 980 MMBtu/hr based on 28 igniters each rated at 35 MMBtu/hr.		

EMISSIONS UNIT INFORMATION

**Section [1]
SJRPP Boiler Nos. 1&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
NOx	139, 204, and 205		EL
CO			NS
SO2	039		EL
VOC			NS
PM	010	039	EL
PM10	010	039	NS
SAM	032		EL

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

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: NOx		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 383.6 lb/hour 1,680.0 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 280 lb/10⁶ scf Reference: AP-42, Section 1.4		7. Emissions Method Code: 3	
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: See Table 2 of Part II for emissions calculation.			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent natural gas firing only. Emissions are total for both boilers.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 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:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): No changes in allowable emissions result from the project.	

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):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
 SJRPP Boiler Nos. 1&2

Page [2] of [7]
 Carbon Monoxide - CO

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

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 115.1 lb/hour 504.0 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 84 lb/10⁶ scf Reference: AP-42, Section 1.4		7. Emissions Method Code: 3	
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: See Table 2 of Part II for emissions calculation.			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent natural gas firing only. Emissions are total for both boilers.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
SJRPP Boiler Nos. 1&2

Page [2] of [7]
Carbon Monoxide - CO

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

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):	

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

POLLUTANT DETAIL INFORMATION

Section [1]
 SJRPP Boiler Nos. 1&2

Page [3] of [7]
 Sulfur Dioxide - SO2

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

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.8 lb/hour 3.6 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: 0.6 lb/10⁶ scf Reference: AP-42, Section 1.4		7. Emissions Method Code: 3	
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: See Table 2 of Part II for emissions calculation.			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent natural gas firing only. Emissions are total for both boilers.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 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:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): No changes in allowable emissions result from the project.	

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.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 7.5 lb/hour 33.0 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 5.5 lb/10⁶ scf Reference: AP-42, Section 1.4		7. Emissions Method Code: 3	
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: See Table 2 of Part II for emissions calculation.			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent natural gas firing only. Emissions are total for both boilers.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

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SJRPP Boiler Nos. 1&2

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Volatile Organic Compounds - VOC

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

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):	

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.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 2.6 lb/hour 11.4 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 1.9 lb/10 ⁶ scf Reference: AP-42, Section 1.4		7. Emissions Method Code: 3	
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: See Table 2 of Part II for emissions calculation.			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent natural gas firing only. Emissions are total for both boilers.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

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 SJRPP Boiler Nos. 1&2

Page [5] of [7]
 Particulate Matter - PM

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 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:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): No changes in allowable emissions result from the project.	

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):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
 SJRPP Boiler Nos. 1&2

Page [6] of [7]
 Particulate Matter - PM10

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS
 (Optional for unregulated emissions units.)**

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM10		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 2.6 lb/hour 11.4 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 1.9 lb/10⁶ scf Reference: AP-42, Section 1.4		7. Emissions Method Code: 3	
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: <p align="center">See Table 2 of Part II for emissions calculation.</p>			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent natural gas firing only. Emissions are total for both boilers.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 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:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): No changes in allowable emissions result from the project.	

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.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SAM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.06 lb/hour 0.28 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.046 lb/10⁶ scf Reference: Table 2, Part II		7. Emissions Method Code: 4	
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: See Table 2 of Part II for emissions calculation.			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent natural gas firing only. Emissions are total for both boilers.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete Subsection F2 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:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): No changes in allowable emissions result from the project.	

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):	

EMISSIONS UNIT INFORMATION

Section [1]
SJRPP Boiler Nos. 1&2

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: 27 % Maximum Period of Excess Opacity Allowed: 6 min/hour	
4. Method of Compliance: Continuous opacity monitors	
5. Visible Emissions Comment: 40 CFR 60.42a(b).	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: VE99	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: 100 % Maximum Period of Excess Opacity Allowed: 60 min/hour	
4. Method of Compliance: COMS	
5. Visible Emissions Comment: Excess emissions resulting from startup, shutdown, and malfunction for no more than 2 hours in any 24-hour period. Rule 62-210.700(1), F.A.C.	

EMISSIONS UNIT INFORMATION

Section [1]

SJRPP Boiler Nos. 1&2

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 1 of 1

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: Units 1 and 2 have continuous opacity monitors (COMs) and continuous emissions monitors (CEMs) for sulfur dioxide and nitrogen oxides. There will be no changes in the existing COMs and CEMs as a result of the project.	

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]
SJRPP Boiler Nos. 1&2

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>SJRPP-EU1-11</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>7/3/2008</u></p>
<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>Part II</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>7/3/2008</u></p> <p><input type="checkbox"/> Not Applicable</p>
<p>6. Compliance Demonstration Reports/Records:</p> <p><input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p> <p>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.</p>
<p>7. Other Information Required by Rule or Statute:</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>Part II</u> <input type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

**Section [1]
SJRPP Boiler Nos. 1&2**

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

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 (Rules 62-212.400(4)(d) and 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

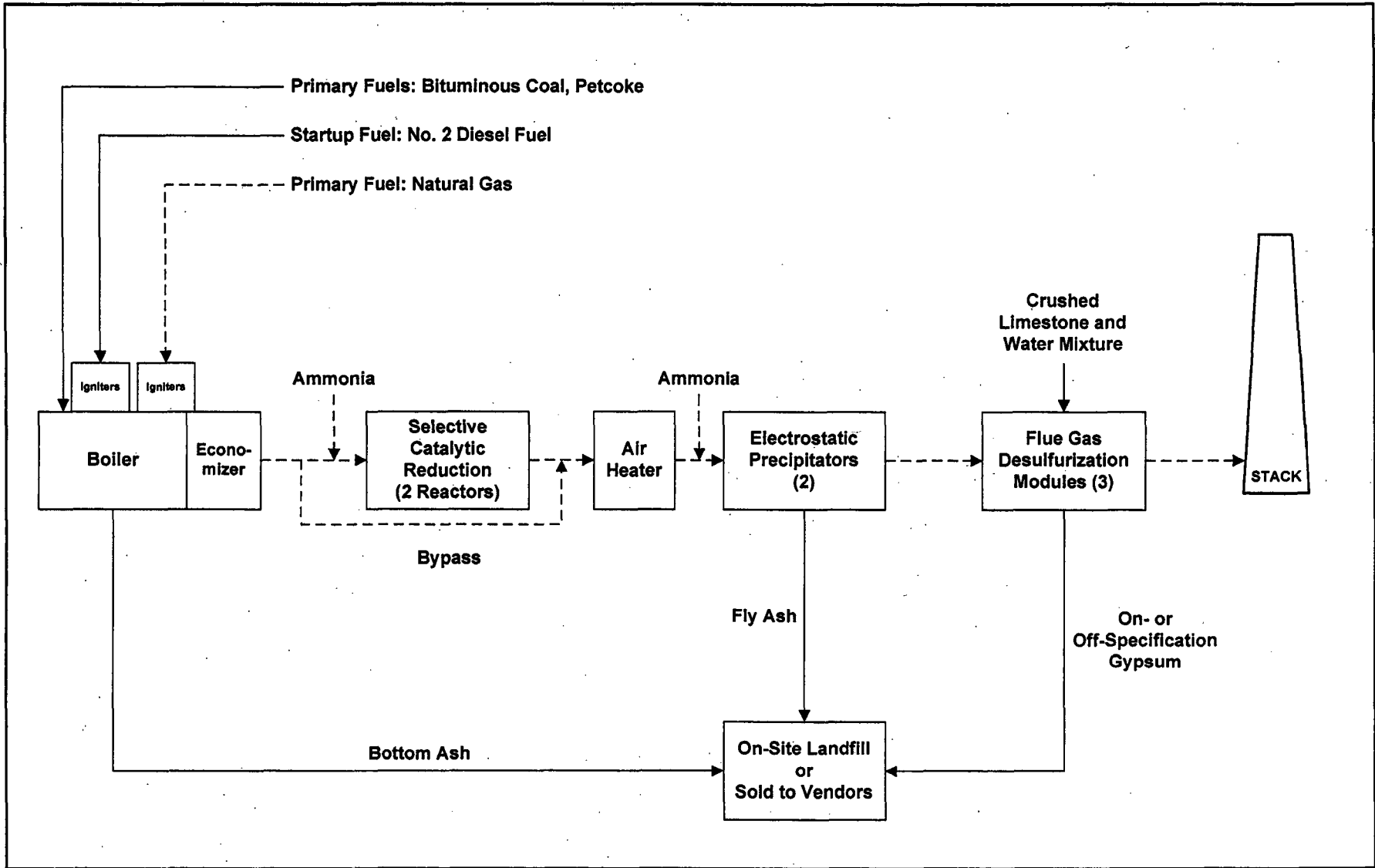
Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

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ATTACHMENT SJRPP-EU1-11
PROCESS FLOW DIAGRAM



Attachment SJRPP-EU1-11
 Process Flow Diagram
 SJRPP Boiler Nos. 1 and 2 (EU 016 and 017)

Process Flow Legend	
Solid/Liquid	—————>
Gas	- - - - ->
Steam	· · · · ·>

Filename: SJRPP-EU1-11.vsd
 Date: 01/29/10



PART II

PART II
APPLICATION FOR MINOR SOURCE AIR CONSTRUCTION PERMIT
FOR THE ADDITION OF NATURAL GAS FUEL
IN SJRPP BOILERS 1 AND 2 (EU IDS 016 AND 017)

EXECUTIVE SUMMARY

Jacksonville Electric Authority (JEA) was authorized under construction permit No. 0310045-024-AC to install new fuel igniters in St. Johns River Power Park (SJRPP) Boiler Nos. 1 and 2 for the purpose of adding natural gas as an alternate fuel for startup, shutdown, low load operation, and flame stabilization. JEA is seeking authorization from the Florida Department of Environmental Protection (FDEP) to burn natural gas during operation of Boiler Nos. 1 and 2. The emissions units are currently permitted to fire pulverized coal and a blend of petroleum coke and coal for normal operation and No. 2 distillate fuel oil and natural gas for startup, shutdown, low-load operation, and flame stabilization (Title V permit No. 0310045-020-AV). Based on current actual-to-future potential emissions, the use of natural gas continuously for 8,760 hours per year (hr/yr) will not result in a net increase of any regulated pollutant above the significant emission rate. Since natural gas is the cleanest fossil fuel, there will be decreases of nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), and particulate matter (PM) emissions. There may be net increases of emissions of volatile organic compounds (VOCs) and particulate matter less than 10 microns (PM₁₀) as a result of using EPA AP-42 emission factors; however, the maximum potential increases will still be lower than the Prevention of Significant Deterioration (PSD) significant emissions rates of 40 and 15 tons per year (TPY), respectively. There are no other changes in Units 1 and 2 as a result of this project.

INTRODUCTION

St. Johns River Power Park (SJRPP) is located at 11201 New Berlin Road, Jacksonville, Duval County, Florida, and is adjacent to the JEA Northside Generating Station. Both facilities are covered under one Title V Permit (Final Title V Permit No. 0310045-020-AV).

Golder Associates Inc. (Golder) was contracted to prepare the necessary air permit application seeking authorization to allow continuous use of natural gas in SJRPP Boiler Nos. 1 and 2. The air permit application consists of the appropriate applications form [Part I; DEP Form 62-210.900(1)], a technical description of the project, and rule applicability for the project.

The maximum heat input rate for SJRPP Boiler Nos. 1 and 2 is 6,144 million British thermal units per hour (MMBtu/hr) for each. A total of 28 igniters have recently been installed for each boiler unit. These natural gas igniters are rated at 25 MMBtu/hr each for a total of 700 MMBtu/hr for each boiler. Therefore, the proposed project will have the potential to replace 700 MMBtu/hr of current actual heat input by the use of natural gas. The project does not include any physical changes to the boiler units. Natural gas piping

and instrumentation, igniter gas header, igniter gas header junction box, igniter group control cabinet, etc., have already been authorized under construction permit No. 0310045-024-AC.

NO_x emissions from the SJRPP Boiler Nos. 1 and 2 are currently controlled by low-NO_x burners (LNBs), overfire air, a selective catalytic reduction (SCR) system, and an ammonia injection system for control of sulfuric acid mist. PM emissions from the units are controlled by an electrostatic precipitator (ESP), and SO₂ emissions are controlled by a flue gas desulfurization (FGD) system. There will be no change to the existing control equipment as a result of the proposed project and no new emission control technology will be added.

RULE APPLICABILITY

Under Federal and State of Florida PSD review requirements, all major new or modified sources of air pollutants regulated under the Clean Air Act (CAA) must be reviewed and a pre-construction permit issued. The U.S. Environmental Protection Agency (EPA) has approved Florida's State Implementation Plan (SIP), which contains PSD regulations. The applicable PSD rules in Florida are found at Rule 62-212.400, Florida Administrative Code (F.A.C.).

A "major facility" is defined as any 1 of 28 named source categories that have the potential to emit 100 TPY or more, or any other stationary facility that has the potential to emit 250 TPY or more, of any pollutant regulated under the CAA. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant after the application of control equipment. Once a new source is determined to be a "major facility" for a particular pollutant, any pollutant emitted in amounts greater than the PSD significant emission rates is subject to PSD review. For an existing source for which a modification is proposed, the modification is subject to PSD review if the net increase in emissions due to the modification is greater than the PSD significant emission rates.

PSD review is used to determine whether significant air quality deterioration will result from the new or modified facility. Federal PSD requirements are contained in Title 40, Part 52.21 of the Code of Federal Regulations (40 CFR 52.21), Prevention of Significant Deterioration of Air Quality. The State of Florida has adopted the federal PSD regulations by reference (Rule 62-212.400, F.A.C.). Major facilities and major modifications are required to undergo the following analyses related to PSD for each pollutant emitted in significant amounts:

- Control technology review
- Source impact analysis
- Air quality analysis (monitoring)
- Source information
- Additional impact analyses

SJRPP is part of the JEA Northside Generating Station/SJRPP complex, which is a major facility under FDEP rules. Based on Rule 62-210.200(205), F.A.C., modification is defined as any physical change in, change in the method of operation of, or addition to a facility which would result in an increase in the actual emissions of any pollutant subject to new source review regulation under the CAA. Because there is a change in the method of operation with the addition of natural gas as a fuel for normal operation, the project is a potential modification as defined in the FDEP rules in Rule 62-210.200 and under the PSD rules in Rule 62-212.400, F.A.C. PSD review would be required for the project if there were a significant net increase in emissions.

SJRPP Boiler Nos. 1 and 2 are baseload electric generating units firing coal with the ability to co-fire petroleum coke. Future operation of these primary fuels will not change. Natural gas is used for startup, shutdown, low-load operations, and flame stabilization and will continue to be used for these authorized purposes. The proposed project requests the ability to use natural gas during operation. Since each boiler unit is rated at 6,144 MMBtu/hr of heat input, the primary heat input will be achieved by firing coal and co-firing petroleum coke. Based on the number of igniters and the heat input rate of the igniters, each boiler will be able to achieve a maximum of 700 MMBtu/hr of heat input from firing natural gas, which is about 11 percent of the maximum heat input. The maximum potential annual heat input for natural gas firing is 6,132,000 MMBtu for each boiler or 12,264,000 MMBtu for both boilers. Because the units are baseload units and their future operation is not expected to change, the maximum future actual annual heat input that could be replaced by natural gas firing is 12,264,000 MMBtu. To evaluate the potential increases in emissions, a comparison was made between future potential annual emissions using natural gas to replace coal/petcoke firing and the current actual annual emissions resulting from the maximum potential heat input of the natural gas igniters.

The baseline or current actual emissions are the emissions over a consecutive 24-month period within the 5 years immediately preceding the date that a complete application is submitted. The use of different consecutive 24-month periods for each pollutant is allowed. For an existing facility for which a modification is proposed, the modification is subject to PSD review if the net increase in emissions due to the modification is greater than the PSD significant emission rates for any applicable pollutant.

Presented in Table 1 are the actual annual heat inputs from different fuels reported in the Annual Operating Reports (AORs) for the period 2003 through 2008. This table also presents the total actual heat input from all fuels for Units 1 and 2, as well as the actual operating hours for each unit.

Table 2 presents the future potential emissions due to natural gas firing. The potential annual heat input is for natural gas firing only and based on potential hourly heat input of all 28 igniters for each boiler unit, each igniter rated at 25 MMBtu/hr. Emission factors used are from AP-42. Table 3 presents each calendar year total actual emissions from all fuels for the period 2003 through 2008. Table 4 presents the average emissions for each consecutive 2-year period based on the calendar year emissions in Table 3.

The use of calendar year dates from the AOR is representative of historic normal operation. The annual average emissions for each consecutive 2-year period are consistent with the definition of baseline actual emissions for fossil fuel-fired steam electric generating units. The latest consecutive 2 years (2007-2008) for emissions in Tables 4 and heat input in Table 1 are used in Table 5 as a conservative approach to calculate the baseline or current actual emissions.

The latest 2-year average baseline emissions from Table 4 and 2-year average actual heat input from Table 1 are used in Table 5 to determine the current actual emission rates as pounds per MMBtu (lb/MMBtu). These emission rates are then used to calculate the current actual emissions resulted from the heat input potential of natural gas. The heat input potential of natural gas is 12,264,000 MMBtu/yr for both boiler units, which is the heat input that will be replaced by natural gas firing. The current actual emissions for the heat input potential of natural gas were subtracted from the future potential emissions due to natural gas firing and the differences were compared to the PSD significant emission rates. As shown in Table 5, there will be a net decrease in NO_x, CO, SO₂, and PM emissions. The increase in VOC and PM₁₀ emissions will be much lower than the PSD significant emission rates for the respective pollutants and are likely an artifact of using AP-42 estimates. For VOCs, since natural gas is co-fired with coal, the combustion process will be improved and likely decrease VOC emissions. For PM₁₀, emissions are controlled using an ESP with additional removal in the FGD system. The addition of natural gas would not influence PM₁₀ emissions. Moreover, the amount of natural gas supplying the heat input to each unit, relative to coal firing, will be much lower. As a result, the influence of natural gas on the combustion process will not increase emissions. It should also be noted that even under the maximum potential emissions for natural gas firing, the emissions of VOC and PM₁₀ are still below the PSD significant emission rates (see Table 2). Since the latest 2-year actual emissions instead of the maximum 2-year average emissions are used, the baseline actual emissions are conservatively estimated.

TABLE 1
SJRPP UNITS 1 & 2 ANNUAL HEAT INPUTS, 2003-2008

Year	Heat Input from Distillate Oil (MMBtu/yr)			Heat Input from Bituminous Coal (MMBtu/yr)			Heat Input from Coke (MMBtu/yr)			Total Actual Heat Input (MMBtu/yr)			Actual Operating Hours (hr/yr)	
	Unit 1	Unit 2	Total	Unit 1	Unit 2	Total	Unit 1	Unit 2	Total	Unit 1	Unit 2	Total	Unit 1	Unit 2
2008	140,836	68,637	209,473	44,790,592	44,519,444	89,310,036	0	0	0	44,931,428	44,588,081	89,519,509	8,117	7,485
2007	122,889	119,053	241,942	46,296,263	39,871,811	86,168,074	145,684	7,379,596	7,525,280	46,564,836	47,370,460	93,935,296	8,299	8,574
2006	172,483	172,072	344,555	40,511,088	31,657,200	72,168,288	8,905,736	12,226,900	21,132,636	49,589,307	44,056,172	93,645,479	8,524	7,611
2005	321,539	206,596	528,135	30,563,320	36,479,775	67,043,095	9,170,177	10,902,956	20,073,133	40,055,036	47,589,327	87,644,363	7,180	8,728
2004	503,886	362,639	866,525	41,862,456	32,498,592	74,361,048	9,193,116	6,520,041	15,713,157	51,559,458	39,381,272	90,940,730	8,774	7,066
2003	347,158	106,860	454,018	37,259,825	41,966,400	79,226,225	8,199,549	7,695,648	15,895,197	45,806,532	49,768,908	95,575,440	7,882	7,882

Note: All values are based on annual operating reports for the period 2003 - 2008.

**TABLE 2
FUTURE POTENTIAL EMISSIONS FOR UNITS 1 & 2 DUE TO NATURAL GAS FIRING**

Pollutant	Potential Hourly	Potential Annual	Natural Gas	Natural Gas Consumption		Emission	Hourly	Annual
	Heat Input ^a (MMBtu/hr)	Heat Input ^b (MMBtu/yr)	Heat Content ^c (MMBtu/10 ⁶ scf)	Hourly (10 ⁶ scf/hr)	Annual (10 ⁶ scf/yr)	Factor ^d (lb/10 ⁶ scf)	Emissions (lb/hr)	Emissions (TPY)
NO _x	1,400.0	12,264,000	1,022	1.37	12,000.0	280	383.6	1,680.0
CO	1,400.0	12,264,000	1,022	1.37	12,000.0	84	115.1	504.0
SO ₂	1,400.0	12,264,000	1,022	1.37	12,000.0	0.6	0.8	3.6
VOC	1,400.0	12,264,000	1,022	1.37	12,000.0	5.5	7.5	33.0
PM	1,400.0	12,264,000	1,022	1.37	12,000.0	1.9	2.6	11.4
PM ₁₀	1,400.0	12,264,000	1,022	1.37	12,000.0	1.9	2.6	11.4
SAM	1,400.0	12,264,000	1,022	1.37	12,000.0	0.046	0.06	0.28

^a Hourly heat input based on 28 igniters for each unit, each igniter rated at 25 MMBtu/hr.

^b Potential annual heat input based on 8,760 hr/yr operation.

^c Based on natural gas heat content of 1,022 Btu/scf.

^d Tables 1.4-1 and 1.4-2, Section 1.4, AP-42. SAM emission factor based on AP-42 Section 1.3 for fuel oil burning - 5% (1 to 5%) of the SO₂ is further oxidized to SO₃, which then convert to SAM (98/80).

**TABLE 3
ANNUAL EMISSIONS REPORTED
IN 2003-2008 ANNUAL OPERATING REPORTS**

Year	Pollutant	Unit 1 (tons)	Unit 2 (tons)	Total (tons)
2008	NO _x	8,963.1	9,217.0	18,180.1
	CO	3,397.0	1,946.1	5,343.1
	SO ₂	4,729.7	3,499.3	8,229.0
	VOC	61.2	58.1	119.3
	PM	70.2	77.6	147.8
	PM ₁₀	39.7	37.8	77.5
2007	NO _x	9,852.0	10,532.0	20,384.0
	CO	5,863.8	4,748.7	10,612.5
	SO ₂	6,636.4	7,021.0	13,657.4
	VOC	60.7	61.3	122.0
	PM	78.4	61.9	140.3
	PM ₁₀	39.3	34.6	73.9
2006	NO _x	10,147.0	9,880.9	20,027.9
	CO	5,273.0	4,216.1	9,489.1
	SO ₂	9,075.4	8,903.1	17,978.5
	VOC	61.9	55.0	116.9
	PM	144.5	113.7	258.2
	PM ₁₀	33.9	27.1	61.0
2005	NO _x	8,738.5	9,596.7	18,335.2
	CO	3,509.8	3,568.0	7,077.8
	SO ₂	8,993.8	10,991.1	19,984.9
	VOC	51.2	57.1	108.3
	PM	114.0	125.3	239.4
	PM ₁₀	26.9	29.6	56.5
2004	NO _x	13,055.5	9,195.8	22,251.3
	CO	4,760.1	4,955.9	9,716.0
	SO ₂	11,905.2	9,770.8	21,676.0
	VOC	63.8	48.8	112.5
	PM	170.5	132.3	302.7
	PM ₁₀	36.3	28.1	64.3
2003	NO _x	11,933.5	12,843.0	24,776.5
	CO	5,641.2	6,286.5	11,927.7
	SO ₂	9,990.0	10,821.9	20,811.9
	VOC	55.6	60.4	116.0
	PM	70.5	74.8	145.3
	PM ₁₀	69.3	74.4	143.7

Source: Annual Operating Report (AOR) for JEA SJRPP, 2003 - 2008.

TABLE 4
ANNUAL AVERAGE EMISSIONS FOR UNITS 1 & 2
FOR EACH CONSECUTIVE TWO-YEAR PERIOD, 2003-2008

Pollutant	2008-2007 (tons)	2007-2006 (tons)	2006-2005 (tons)	2005-2004 (tons)	2004-2003 (tons)
NO _x	19,282.1	20,206.0	19,181.6	20,293.3	23,513.9
CO	7977.8	10050.8	8,283.5	8,396.9	10,821.9
SO ₂	10943.2	15818.0	18981.7	20,830.5	21,244.0
VOC	120.6	119.4	112.6	110.4	114.3
PM	144.0	199.3	248.8	271.1	224.0
PM ₁₀	75.7	67.4	58.7	60.4	104.0

Source: Annual Operating Report (AOR) for JEA SJRPP, 2003 - 2008.

**TABLE 5
PSD APPLICABILITY - SJRPP UNITS 1 & 2
NATURAL GAS FIRING**

Pollutant	Latest 2-Year (2007-2008) Average Emissions ^a (TPY)	Latest 2-Year (2007-2008) Average Heat Input ^b (MMBtu/yr)	Current Actual Emission Rates (lb/MMBtu)	Current Actual Emissions for Heat Input Potential of Natural Gas ^c (TPY)	Future Potential Emissions ^d (TPY)	Increase/Decrease in Emissions (Future - Current Actual) (TPY)	PSD Significant Emission Rates (TPY)
NO _x	19,282	91,727,403	0.42	2,578.0	1680.0	-898.0	40
CO	7,978	91,727,403	0.17	1,066.6	504.0	-562.6	100
SO ₂	10,943	91,727,403	0.24	1,463.1	3.6	-1459.5	40
VOC	121	91,727,403	0.0026	16.1	33.0	16.9	40
PM	144	91,727,403	0.0031	19.3	11.4	-7.9	25
PM ₁₀	76	91,727,403	0.0017	10.1	11.4	1.3	15
SAM ^e	NA	NA	NA	NA	0.3	0.3	7

^a Based on AOR data for 2003 - 2008, see Table 4.

^b Based on AOR data for 2003 - 2008, see Table 1.

^c See Table 2 for heat input potential for natural gas, which is the potential amount of current actual heat input to be replaced by natural gas.

^d Future potential emissions based on heat input potential of natural gas, see Table 2.

^e SAM emissions data are not available (NA) in the AORs for 2003 - 2008.