

September 24, 2010

RECEIVED

103-87665

SEP 27 2010 Via Electronic Delivery

BUREAU OF AIR REGULATION

Mr. Scott M. Sheplak, P.E. Bureau of Air Regulation Department of Environmental Protection 2600 Blair Stone Road Tallahassee, FL 32399

RE:

Northside Generating Station/St. Johns River Power Park (SJRPP)

DEP File No. 0310045-029-AC

Natural Gas Usage

Dear Scott:

Please find attached an application for incorporating the above-referenced air construction permit into the Title V permit. Please incorporate this request into the Title V revision currently being processed by the Department (DEP File No. 0310045-028-AV).

If there are any further questions concerning this request, please contact Mr. Bert Gianazza at (904) 665-6247-2595 or me at (352) 336-5600.

Sincerely,

GOLDER ASSOCIATES INC.

Kennard F. Kosky, P.E.

Principal

KFK/edk

Enclosures

cc: Bert Gianazza, P.E., JEA







TITLE V AIR OPERATION **PERMIT REVISION APPLICATION**

Jacksonville Electric Authority St. Johns River Power Park Jacksonville, Florida

Prepared For: Jacksonville Electric Authority

21 West Church Street Jacksonville, FL 32202

Submitted By: Golder Associates Inc.

6026 NW 1st Place

Gainesville, FL 32607 USA

Distribution: FDEP (4 copies)

JEA (2 copies)

Golder Associates Inc. (2 copies)

September 2010

103-87665



APPLICATION FOR AIR PERMIT

LONG – FORM



Department of Environmental Protection Pivision of Air Resource Management AIR PERMIT - LONG FORM AIR REGULATION AIR REGULATION AIR PERMIT - LONG FORM AIR REGULATION AIR REGULATION

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

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

Air Operation Permit – Use this form to apply for:

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

To ensure accuracy, please see form instructions.

Identification of Facility

1.	Facility Owner/Company Name:	JEA		
2.	Site Name: St. Johns River Pow	er Park (SJ	IRPP)	
3.	Facility Identification Number:	0310045		
4.	Facility Location Street Address or Other Locator:	11201 Ne	w Berlin Road	
	City: Jacksonville	County:	Duval	Zip Code: 32226
5.	Relocatable Facility? ☐ Yes ☒ No		6. Existing ⊠ Yes	Title V Permitted Facility? ☐ No

Application Contact

1.	Application	Contact Name: N. Bert C	Gianazza, F	.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 Num	ibers			
	Telephone:	(904) 665-6247	ext.	Fax: (904)	665 - 7376	
4.	Application	Contact E-mail Address	: Giannb@			

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):

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.					
And Produce Co.					

Application Comment

This application is for a revised Title V permit to incorporate Air Construction Permit No. 0310045-029-AC. It is requested that this application be processed along with Title V Revision No. 0310045-028-AC related to Northside Generating Station CFB Boilers No. 1 and No. 2.

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	,	Air Permit Type	Air Permit Processing Fee	
016	SJRPP Boiler No. 1		AF2A	N/A	
017	SJRPP Boiler No. 2		AF2A	N/A	
	·				
		<u></u>			
		_			
					
-					
-					
-					

Application Processing Fee	
Check one: Attached - Amount: \$	

Owner/Authorized Representative Statement

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

2.	Owner/Authorized Representation/Firm:	ative Mailing Address			
	Street Address:				
	City:	State: Zip	Code:		
3.	Owner/Authorized Representa	ative Telephone Numbers			
	Telephone: ()	ext. Fax:	()		
4.	Owner/Authorized Representa	ative E-mail Address:			
	Owner/Authorized Representative Statement:				
5.	Owner/Authorized Representa	ative Statement:			
5.	I, the undersigned, am the owner other legal entity submitting this statements made in this applicat emissions reported in this applic	r or authorized representative of the corp air permit application. To the best of m ion are true, accurate and complete, and ation are based upon reasonable techniq ermit, if granted by the department, can	y knowledge, the l any estimates of ques for calculating		

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: James M. Chansler, P.E., D.P.A., Chief Operations Officer					
2.	Application Responsible Official Qualification (Check one or more of the following options, as applicable):					
	For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.					
	For a partnership or sole proprietorship, a general partner or the proprietor, respectively. X For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.					
	The designated representative at an Acid Rain source, CAIR source, or Hg Budget 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 - 4238					
5.	Application Responsible Official E-mail Address: chanjm@jea.com					
6.	Application Responsible Official Certification:					
,	I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.					
	Signature Date					

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

Effective: 3/16/08 5

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, the undersigned, hereby certify, except as particularly noted herein*, that:
	(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
	 (2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application. (3) If the purpose of this application is to obtain a Title V air operation permit (check here ⋈, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.
	(4) If the purpose of this application is to obtain an air construction permit (check here \square , 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 \square , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.
	(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

* 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.	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:	4. Facility Status Code:	5.	Facility Major Group SIC Code:	6.	Facility SIC(s):
	0	Α		49		
7.	Facility Comment:					
	The facility includes	the JEA Northside Gene	erati	ng Station and SJRP	Ρ.	

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 B	erlin Road				
	City: Jacksonville	State: FL	Zip Code: 32226			
3.	Facility Contact Telephone Num	bers:				
	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:					
	City:	State	:		Zip Code:	
3.	Facility Primary Responsible	Official Telepho	ne Number	:s		
	Telephone: ()	ext.	Fax:	()	
4.	Facility Primary Responsible	Official E-mail A	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. Small Business Stationary Source	☐ Unknown
2. Synthetic Non-Title V Source	
3. Title V Source	
4. Major Source of Air Pollutants, Other than Haza	rdous Air Pollutants (HAPs)
5. Synthetic Minor Source of Air Pollutants, Other	than HAPs
6. Major Source of Hazardous Air Pollutants (HAP	s)
7. Synthetic Minor Source of HAPs	
8.	40 CFR Part 60)
9. One or More Emissions Units Subject to Emission	on Guidelines (40 CFR Part 60)
10. ☐ One or More Emissions Units Subject to NESHA	AP (40 CFR Part 61 or Part 63)
11. Title V Source Solely by EPA Designation (40 C	CFR 70.3(a)(5))
12. Facility Regulatory Classifications Comment:	
SJRPP Units 1 and 2 are subject to 40 CFR Part 60 St	ıbpart Da
·	

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM/PM10	A	N N
NOx	A	N
СО	A	N
VOC	Α	N
SO2	A	N
	<u> </u>	
 	,	

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

l. Pollutant	2. Facility-	3. Emissions	4. Hourly	5. Annual	6. Basis for
Subject to	Wide Cap	Unit ID's	Cap	Cap	Emission
Emissions	[Y or N]?	Under Cap	(lb/hr)	(ton/yr)	Cap
Cap	(all units)	(if not all units)	(10/111)	(told yl)	Cap
<u>Сар</u> ———	(all ullits)	(II not an units)			
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7. Facility-Wi	ide or Multi-Unit	Emissions Cap Con	nment:		
7. Facility-Wi	ide or Multi-Unit	Emissions Cap Con	nment:		
7. Facility-Wi	ide or Multi-Unit	Emissions Cap Con	nment:		
7. Facility-Wi	ide or Multi-Unit	Emissions Cap Con	nment:		
7. Facility-Wi	ide or Multi-Unit	Emissions Cap Con	nment:		
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7. Facility-Wi	ide or Multi-Unit	Emissions Cap Con	nment:		
7. Facility-Wi	ide or Multi-Unit	Emissions Cap Con	nment:		
7. Facility-Wi	ide or Multi-Unit	Emissions Cap Con	nment:		

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) Attached, Document ID: Previously Submitted, Date: July 2008
	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) ☐ Attached, Document ID: ☐ ☐ Previously Submitted, Date: July 2008
	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) Attached, Document ID: Previously Submitted, Date: July 2008
_	Ad	ditional Requirements for Air Construction Permit Applications
	1.	Area Map Showing Facility Location: Attached, Document ID: Not Applicable (existing permitted facility)
	2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): Attached, Document ID:
	3.	Rule Applicability Analysis: Attached, Document ID:
	4.	List of Exempt Emissions Units: Attached, Document ID: Not Applicable (no exempt units at facility)
	5.	Fugitive Emissions Identification: Attached, Document ID: Not Applicable
	6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.): ☐ Attached, Document ID: ☐ Not Applicable
		Source Impact Analysis (Rule 62-212.400(5), F.A.C.): Attached, Document ID:
ſ	8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): Attached, Document ID: Not Applicable
Ī	9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): Attached, Document ID: Not Applicable
	10.	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): Attached, Document ID: Not Applicable

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)
<u>Ac</u>	Iditional 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:
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: SJRPP-FI-CV6 ☐ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

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

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.):
- · · · · · · · · · · · · · · · · · · ·	, , , , ,
☐ Not Applicable	
New Unit Exemption (DEP Form No. 62-210.9	900(1)(a)2.):
- · · · · · · · · · · · · · · · · · · ·	
Not Applicable ■	•
CAIR Part (DEP Form No. 62-210.900(1)(b)):	
☐ Attached, Document ID: 🖂	Previously Submitted, Date: July, 2008
☐ Not Applicable (not a CAIR source)	
Hg Budget Part (DEP Form No. 62-210.900(1)	(c)):
Attached, Document ID:	Previously Submitted, Date:
Not Applicable (not a Hg Budget unit)	
ditional Requirements Comment	
	1 -3 11-3
	•
	Acid Rain Part Application (DEP Form No. 62 Attached, Document ID:

ATTACHMENT SJRPP-FI-CV6

REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATING PERMIT

ATTACHMENT SJRPP-FI-CV6 REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATING PERMIT

Jacksonville Electric Authority (JEA) requests that Air Permit No. 0310045-029-AC, issued on July 7, 2010 be incorporated into the existing Title V air operating permit No. 0310045-020-AV, which expires on December 31, with the following changes made to the Permit No. 0310045-020-AV.

Section III, Subsection C - Please revise the emission unit description to include "these emissions units are allowed to continuously fire natural gas during normal operations.

Section III, Specific Condition C.3. – Methods of Operation – Please include natural gas firing during normal operations with natural gas-firing heat input limited to 700 MMBtu/hr, per unit.

Section III, Specific Condition C.15. – Nitrogen Oxides – Please include the following emissions standards to the current standards:

- a. NO_x Emissions Limits
 - (3) Natural gas: 0.20 lb/million Btu [40 CFR 60.44Da(a)(1)]
- b. NO_x Reduction Requirement
 - (3) Natural gas: 25 percent reduction [40 CFR 60.44Da(a)(2)]

Section III, Specific Condition C.16. – Nitrogen Oxides – Please revise the condition as follows:

When two or more fuels are combusted simultaneously, the applicable standard is determined by proration using the following formula:

$$E_{NOX} = (0.20w + 0.30x + 0.60z)/100$$

where:

- E_{NOX} = Applicable standard for NO_X when multiple fuels are combusted simultaneously (lb/MMBtu of heat input)
- w = Percentage of total heat input derived from the combustion of fuels subject to the standard of 0.20 lb/MMBtu of heat input for authorized gaseous fuels
- x = Percentage of total heat input derived from the combustion of fuels subject to the standard of 0.30 lb/MMBtu of heat input for authorized liquid fuels
- z = Percentage of total heat input derived from the combustion of fuels subject to the standard of 0.60 lb/MMBtu of heat input for authorized bituminous coal or a blend of bituminous coal with petcoke

[40 CFR 60.44Da(c)]



Section III, Subsection on Compliance Provisions – Please add the following condition to the existing compliance provisions –

Natural Gas Firing: The permittee shall maintain sufficient records to document the firing of natural gas. [Rule 62-4.070(3), F.A.C.]



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.

Section [1] SJRPP Boiler Nos. 1&2

A. GENERAL EMISSIONS UNIT INFORMATION

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

	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.					
<u>En</u>	nissions Unit Desc	ription and Status				
1.	Type of Emissions	Unit Addressed in this	Sect	ion: (Check one)		
		s Unit Information Sect				. •
		duction unit, or activity, east one definable emiss				e air pollutants and
		s Unit Information Secti	_	•		issions unit a group
		roduction units and acti		•		
		vent) but may also proc				
		s Unit Information Section production units and a		-		
2.	*	issions Unit Addressed	in th	is Section:		
	St. Johns River Po	wer Park Units 1 and 2				•
— —						
3.		entification Number: 01			1	
	Emissions Unit	5. Commence		Initial Startup	7.	Emissions Unit
		5. Commence Construction			7.	Major Group
	Emissions Unit	5. Commence		Initial Startup	7.	
	Emissions Unit Status Code:	5. Commence Construction	6.	Initial Startup Date: 12/86	7.	Major Group SIC Code:
4.	Emissions Unit Status Code:	5. Commence Construction Date:	6.	Initial Startup Date: 12/86	7.	Major Group SIC Code:
4.	Emissions Unit Status Code: A Federal Program A	5. Commence Construction Date:	6.	Initial Startup Date: 12/86	7.	Major Group SIC Code:
4.	Emissions Unit Status Code: A Federal Program A A cid Rain Uni	5. Commence Construction Date: Applicability: (Check al	6.	Initial Startup Date: 12/86	7.	Major Group SIC Code:
4.	Emissions Unit Status Code: A Federal Program A Acid Rain Unit CAIR Unit Hg Budget Unit Package Unit:	5. Commence Construction Date: Applicability: (Check al	6.	Initial Startup Date: 12/86 apply)	7.	Major Group SIC Code:
8.	Emissions Unit Status Code: A Federal Program A Acid Rain Unit CAIR Unit Hg Budget Unit Package Unit: Manufacturer:	5. Commence Construction Date: Applicability: (Check alt	6.	Initial Startup Date: 12/86	7.	Major Group SIC Code:
4.8.9.10.	Emissions Unit Status Code: A Federal Program A Acid Rain Unit CAIR Unit Hg Budget Un Package Unit: Manufacturer: Generator Namepl	5. Commence Construction Date: Applicability: (Check alt t ate Rating: 679.6 MW	6.	Initial Startup Date: 12/86 apply)	7.	Major Group SIC Code:
4.8.9.10.	Emissions Unit Status Code: A Federal Program A Acid Rain Unit CAIR Unit Hg Budget Un Package Unit: Manufacturer: Generator Namepl Emissions Unit Colnitial Startup Date	5. Commence Construction Date: Applicability: (Check alt t ate Rating: 679.6 MW	6. I that	Initial Startup Date: 12/86 apply) Model Number: operation date. Ut	nit 2	Major Group SIC Code: 49 began commercial

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

- Control Equipment/Method Description:
 Low NO_x Burners (LNB), overfire air, and Selective Catalytic Reduction (SCR) system for NO_x 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

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 Throughp	ut Rate:	
2.	Maximum Production Rate:		
3.	Maximum Heat Input Rate: 12,2	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 Co Maximum heat input rate for each	h unit is 6,144 MMBtu/hr. h unit is 700 MMBtu/hr for na	atural gas firing
о.	Maximum heat input rate for each	h unit is 6,144 MMBtu/hr. h unit is 700 MMBtu/hr for na	atural gas firing
о.	Maximum heat input rate for each	h unit is 6,144 MMBtu/hr. h unit is 700 MMBtu/hr for na	atural gas firing
ο.	Maximum heat input rate for each	h unit is 6,144 MMBtu/hr. h unit is 700 MMBtu/hr for na	atural gas firing
ο.	Maximum heat input rate for each	h unit is 6,144 MMBtu/hr. h unit is 700 MMBtu/hr for na	atural gas firing
0.	Maximum heat input rate for each	h unit is 6,144 MMBtu/hr. h unit is 700 MMBtu/hr for na	atural gas firing
0.	Maximum heat input rate for each	h unit is 6,144 MMBtu/hr. h unit is 700 MMBtu/hr for na	atural gas firing
0.	Maximum heat input rate for each	h unit is 6,144 MMBtu/hr. h unit is 700 MMBtu/hr for na	atural gas firing

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.	Flow Diagram: EU016 and EU017		2. Emission Point 7	Гуре Code:	
3.	Descriptions of Emission				
	ID Numbers or Description				
5.	Discharge Type Code: V	6. Stack Height 640 feet	:	7. Exit Diameter: 22.3 feet	
8.	Exit Temperature: 156°F	9. Actual Volum 1,800,000 acfi	netric Flow Rate: m	10. Water Vapor: %	
11	Maximum Dry Standard F	low Pote:	12. Nonstack Emission Point Height: feet		
11.	dscfm dscfm	iow Rate.			
	dscfm Emission Point UTM Coor Zone: East (km):	rdinates	feet 14. Emission Point I Latitude (DD/M)	atitude/Longitude M/SS)	
13.	dscfm Emission Point UTM Coo	rdinates : : n Title V revision a	feet 14. Emission Point I Latitude (DD/M) Longitude (DD/N) pplication submitted A	Latitude/Longitude M/SS) MM/SS) August 10, 2009. Stack	

Section [1] SJRPP Boiler Nos. 1&2

D. SEGMENT (PROCESS/FUEL) INFORMATION

<u>Seg</u>	<u>gment Descript</u>	ion and Rate	: Segment 1 of 4
1.	Segment Descr	ription (Proce	ss/Fuel Type):

Co-firing up to 30 percent petroleum coke with coal

External Combustion Boilers; Electric Generation; Petroleum Coke

2.	Source Classification Code 1-01-008-01	3. SCC Units: Tons burned			
4.	Maximum Hourly Rate: 150.0	5. Maximum 1,314,000	Annual Rate:	6.	Estimated Annual Activity Factor:
7.	Maximum % Sulfur:	8. Maximum 9	% Ash:	9.	Million Btu per SCC Unit: 28
10.	Segment Comment: Co-firing of maximum 30% Maximum rates are total fo Maximum rates are based of average. Petroleum coke heat conte	r both units. on petroleum cok	e burning limit o		0,000 lb/hr, 30-day rolling
<u>Se</u>	gment Description and Ra	te: Segment 2 o	f <u>4</u>		
1.	Segment Description (Proc External Combustion Boile Pulverized Coal: Dry Botton	rs; Electric Gene	ration; Bitumino	us/S	ubbituminous Coal;
2.	Source Classification Code 1-01-002-02	e (SCC):	3. SCC Units: Tons burne		
4.	Maximum Hourly Rate: 491.52	5. Maximum 4,305,715	Annual Rate:	6.	Estimated Annual Activity Factor:
7.	Maximum % Sulfur:	8. Maximum 9	% Ash:	9.	Million Btu per SCC Unit: 25
	Segment Comment: aximum rates are total for b	oth units.			

Section [1]

SJRPP Boiler Nos. 1&2

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

<u>Segment Description and Rate:</u> Segment <u>3</u> of <u>4</u> 1. Segment Description (Process/Fuel Type):

	External Combustion Boile	ers; ł	Electric Gene	ration; Natural-G	as E	30ilers >100 MMBtu/hr
2.	Source Classification Cod 1-01-006-01	e (S	CC):	3. SCC Units: Million cubi		et natural gas burned
4.	Maximum Hourly Rate: 1.37	5.	Maximum <i>1</i>	Annual Rate:	6.	Estimated Annual Activity Factor:
7.	Maximum % Sulfur:	8.	Maximum ⁹	% Ash:	9.	Million Btu per SCC Unit: 1,022
10.	Segment Comment: Each unit maximum hourly Each unit maximum annua Maximum rates are total fo	l rate	e = 0.685 MM	u/hr / 1022 MMBt ft³/hr x 8,760 hrs	u/ M /yr =	M ft ³ = 0.685 MM ft ³ /hr = 6,000 MM ft ³ /yr
Se	gment Description and Ra	ite:	Segment 4 o	f <u>4</u>		
1.	Segment Description (Proc External Combustion Boile			ration; Distillate	Oil -	Grades 1 or 2 oil
2.	Source Classification Code 1-01-005-01	e (SC	CC):	3. SCC Units: 1,000 Gallor		urned
4.	Maximum Hourly Rate: 14.2	5.	Maximum / 124,392	Annual Rate:	6.	Estimated Annual Activity Factor:
7.	Maximum % Sulfur: 0.76	8.	Maximum 9 0.01	% Ash:	9.	Million Btu per SCC Unit: 138
Ma Ead Ma	Segment Comment: ximum rates are total for bo ch unit maximum hourly rate ximum annual rate = 7.1x10 ³ . 2 fuel oil used during starte	e = 9 ³ gal	80 MMBtu/hr llons/hr x 8,76	/138 MMBtu/1,00 30 hr/yr = 62,196x	0 ga 10³	allon = 7.1x10 ³ gallons/hr. gallons/yr.

Maximum hourly rate of 980 MMBtu/hr based on 28 igniters each rated at 35 MMBtu/hr.

Section [1] SJRPP Boiler Nos. 1&2

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1 D 11 (2 E 19 1	10 P: 6 : 1	2 0 1 0 1	4 D-11-4-4
1. Pollutant Emitted	2. Primary Control	3. Secondary Control	4. Pollutant
	Device Code	Device Code	Regulatory Code
NOx	139, 204, and		EL
	205		
СО			NS
SO2	039		EL
VOC			NS
PM	010	039	EL
PM10	010	039	NS
SAM	032		EL
РВ			NS
NH3			NS
Acetaldehyde (H001)			NS
Benzene (H017)			NS
Benzyl chloride (H020)			NS
Cyanide Compounds (H054)			NS
HCI (H106)		/	NS
HF (H107)			NS
Isophorone (H109)			NS
Manganese Compounds (H113)			NS
Methyl chloride (H118)			NS
Selenium Compounds (H162)			NS
HAPs			NS

EMISSIONS UNIT INFORMATION Section [1] SJRPP - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION
Page [1] of [4]
Nitrogen Oxides - NOx

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

Pollutant Emitted: NOx	2. Total Percent Efficient	ency of Control:
3. Potential Emissions: 7,372.8 lb/hour 24,757.9	4. Synth	netically Limited? es 🛭 No
5. Range of Estimated Fugitive Emissions (as to tons/year		
6. Emission Factor: 0.60 lb/MMBtu, 30-day rolli 0.46 lb/MMBtu, calendar ye Reference: 40 CFR 60 Subpart Da and Permit No	ear average	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month From:	Period:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitori	
10. Calculation of Emissions: Each unit: Hourly NOx emissions rate: 0.6 lb/ Each unit: Annual NOx emissions rate: 0.46 lb/MMBtu x 6,144 MMBtu/hr x 8,760 hr/yr	r x ton/2,000 lb = 12,378.9	
11. Potential, Fugitive, and Actual Emissions Comment: Potential emissions based on 0.6 lb/MMBtu on a 30-day rolling average when firing coal or a coal/petcoke blend. Emissions limited to 0.46 lb/MMBtu on a calendar year average. Emissions represent total for both boilers.		

Section [1] SJRPP - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION Page [1] of [4] Nitrogen Oxides - NOx

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 1 of 5

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units: 0.6 lb/MMBtu, 30-day rolling average	4.	Equivalent Allowable Emissions: 7,372.8 lb/hour 32,292 tons/year			
5.	. Method of Compliance: Compliance with the NOx emission limit will be demonstrated using CEMs.					
6.	Allowable Emissions Comment (Description Based on 40 CFR 60, Subpart Da and 30-day in the comment of the commen		· ,			

Allowable Emissions 2 of 5

1.	Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units: 0.3 lb/MMBtu, 30-day rolling average	4. Equivalent Allowable Emissions: 3,686.4 lb/hour tons/year
5.	Method of Compliance: Compliance with the NOx emission limit w	ill be demonstrated using CEMs.
6.	Allowable Emissions Comment (Descript Based on 40 CFR 60, Subpart Da and 30-de Each unit equivalent hourly: 0.3 lb/MMBtu Applicable when firing fuel oil.	ay rolling average.

Allowable Emissions 3 of 5

1.	Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units: 0.2 lb/MMBtu, 30-day rolling average	4. Equivalent Allowable Emissions: 140.0 lb/hour tons/year
5.	Method of Compliance: Compliance with the NOx emission limit wi	ill be demonstrated using CEMs.
6.	Allowable Emissions Comment (Descripting Based on 40 CFR 60, Subpart Da [40 CFR 60] Each unit equivalent hourly: 0.2 lb/MMBtu 20 Applicable when firing natural gas.	60.44Da(a)(1)] and Permit No. 0310045-029-AC.

Section [1] SJRPP - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION Page [1] of [4] Nitrogen Oxides - NOx

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 Emi	issions	Allo	owable	Emiss	ions	4	of	5

1.	Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:				
3.	Allowable Emissions and Units: see comment	4. Equivalent Allowable Emissions: lb/hour tons/year				
5.	Method of Compliance: Compliance with the NOx emission limit will to	pe demonstrated using CEMS.				
6.	Allowable Emissions Comment (Description ENOx= (0.2w + 0.3x + 0.6z)/100 Where ENOx=NOx emissions standard in Ib/N w = % of total heat input derived from the con w = % of total heat input derived from the con z = % of total heat input derived from the com Based on 40 CFR 60, Subpart Da [40 CFR 60.4]	IMBtu nbustion of natural gas. nbustion of fuel oil. bustion of coal or a blend of coal and petcoke.				
Al	lowable Emissions Allowable Emissions 5 of	f <u>5</u>				
1.	Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:				
3.	Allowable Emissions and Units: 0.46 lb/MMBtu, calendar year average	4. Equivalent Allowable Emissions: lb/hour 24,757.9 tons/year				
5.	5. Method of Compliance: Compliance with the NOx emission limit will be demonstrated using CEMs.					
6.	Allowable Emissions Comment (Description Each unit equivalent allowable = 0.46 lb/MMBs = 12,378.9 TPY Based on 40 CFR 76.7(a)(2).	of Operating Method): tu x 6,144 MMBtu/hr x 8,760 hr/yr x ton/2,000 lb				
All	lowable 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):				

Section [1] SJRPP - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION Page [2] of [4] 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

Pollutant Emitted: SO2	2. Total Percent Efficiency of Control:				
3. Potential Emissions: 14,746 lb/hour 40,904	4. Synthetically Limited? ✓ Yes ☐ No				
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):				
6. Emission Factor: 1.20 lb/MMBtu (2-hr average basis) 0.76 lb/MMBtu (30-day rolling average basis) Reference: 40 CFR 60 Subpart Da and Permit No. 0310045-020-AV 7. Emissions Method Code: 0					
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:				
tons/year	From: To:				
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:				
tons/year	☐ 5 years ☐ 10 years				
10. Calculation of Emissions: Coal only					
Each unit: Hourly SO_2 emissions rate (2-hr average): 1.20 lb/MMBtu x 6,144 MMBtu/hr = 7,373 lb/hr Each unit: Hourly SO_2 emissions rate (30-day average): 0.76 lb/MMBtu x 6,144 MMBtu/hr = 4,669 lb/hr Each unit: Annual SO_2 emissions rate: 4,669 lb/hr x 8,760 hr/yr x ton/2000 lb = 20,452 ton/yr					
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for both boilers					

Section [1] SJRPP - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION Page [2] of [4] Sulfur Dioxide - SO2

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 1 of 10

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Al Emissions:	llowable
3.	Allowable Emissions and Units:	4.	*	
	1.20 lb/MMBtu, 2-hr average	ļ	14,746 lb/hour	tons/year
5.	Method of Compliance: Compliance with the SO ₂ emission limit will b	e de	monstrated using CEMs.	
6.	Allowable Emissions Comment (Description Permit No. 0310045-020-AV Applicable when firing coal. Total both boilers.	of	Operating Method):	

Allowable Emissions 2 of 10

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date Emissions:	of Allowable
3.	Allowable Emissions and Units: 0.76 lb/MMBtu, 30-day rolling average	4.	Equivalent Allowable 9,338 lb/hour	Emissions: 40,904 tons/year
5.	Method of Compliance: Compliance with the SO ₂ emission limit will be	oe de	monstrated using CEM	ls.
6.	Allowable Emissions Comment (Description Permit No. 0310045-020-AV Applicable when firing coal. Total both boilers.	of (Operating Method):	

Allowable Emissions Allowable Emissions 3 of 10

1.	Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units: 70% reduction of potential combustion concentrations if emissions are less than 0.60 lb/MMBtu	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance: Compliance with the SO ₂ emission limit will	be demonstrated using CEMs.
6.	Allowable Emissions Comment (Description	n of Operating Method):
	Based on 40 CFR 60, Subpart Da. Applicable when firing coal.	,

Section [1] SJRPP - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION Page [2] of [4] Sulfur Dioxide - SO2

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 4 of 10

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allow Emissions:	able
3.	Allowable Emissions and Units: 0% reduction of potential combustions concentrations if emissions are less than 0.20 lb/MMBtu	4.	Equivalent Allowable Emission lb/hour	ns: tons/year
5.	Method of Compliance: Compliance with the SO ₂ emission limit will b	e de	monstrated using CEMs.	
6.	Allowable Emissions Comment (Description Based on 40 CFR 60, Subpart Da. Applicable when firing coal.	of (Operating Method):	

Allowable Emissions 5 of 10

1.	Basis for Allowable Emissions Code: OTHER	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units: 0.676 lb/MMBtu, 30-day rolling average	4. Equivalent Allowable Emissions: 8,306 lb/hour 36,384 tons/year		
5.	5. Method of Compliance: Compliance with the SO ₂ emission limit will be demonstrated using CEMs.			
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0310045-020-AV Applicable when firing coal and petroleum coke blends. Total both boilers.		,		

Allowable Emissions Allowable Emissions 6 of 10

1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:	
3.	Allowable Emissions and Units: 0.53 lb/MMBtu	4. Equivalent Allowable Emissions: 6,512 lb/hour 199,687 tons/year	
5.	Method of Compliance: Compliance with the SO ₂ emission limit wi	Il be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0310045-020-AV Applicable when firing coal and petroleum coke blends. Total for both boilers.			

Section [1] SJRPP - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION

Page [2] of [4] Sulfur Dioxide - SO2

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 7 of 10

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of A Emissions:	llowable
3.	Allowable Emissions and Units: See Comment	4.	Equivalent Allowable Emi lb/hour	issions: tons/year
5.	Method of Compliance: Compliance with the SO ₂ emission limit will	ll be de	emonstrated using CEMs.	
6.	Allowable Emissions Comment (Descripting SO ₂ (Ib/MMBtu)= (0.2 x C / 100) + 0.4 Where C = percent of coal fired on a heat in Permit No. 0310045-020-AV Applicable when firing coal and petroleum	put b	asis (30-day rolling average)	

Allowable Emissions Allowable Emissions 8 of 10

1.	Basis for Allowable Emissions Code: OTHER	2.	2. Future Effective Date of Allowable Emissions:	
3.	Allowable Emissions and Units: See comment	4.	Equivalent Allowable Emiss lb/hour	ions: tons/year
5.	. Method of Compliance: Compliance with the SO ₂ emission limit will be demonstrated using CEMs.			
6.	Allowable Emissions Comment (Description of Operating Method): SO2 (Ib/MMBtu)= (0.1653 x C x S - 0.4 x C + 40) x 1/100 Where C = percent of coal co-fired on a heat input basis S = weight percent sulfur in coal (30-day rolling average) Permit No. 0310045-020-AV Applicable when firing coal and petroleum coke blends.			

Allowable Emissions 4 of 10

1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:	
3.	Allowable Emissions and Units: 0.20 lb/MMBtu	4. Equivalent Allowable Emissions: 2,458 lb/hour tons/year	
5.	5. Method of Compliance: Compliance with the SO ₂ emission limit will be demonstrated using CEMs.		
6. Allowable Emissions Comment (Description of Operating Method): Applies when firing liquid fuels only. Permit No. 0310045-020-AV Total for both boilers.			

EMISSIONS UNIT INFORMATION Section [1]

Section [1] SJRPP - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION Page [2] of [4] Sulfur Dioxide - SO2

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 10 of 10

1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units: See comment	4.	Equivalent Allowable Emissi lb/hour	ons: tons/year	
5.	Method of Compliance: Compliance with the SO ₂ emission limit will be demonstrated using CEMs.				
6.	Allowable Emissions Comment (Description of Operating Method): Prorated formulas specified in 40 CFR 60.43(h). Permit No. 0310045-020-AV.				
<u>Al</u>	lowable Emissions Allowable Emissions	o:	f		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allo Emissions:	wable	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissically/hour	ons: tons/year	
5.	Method of Compliance:	•	,		
6.	Allowable Emissions Comment (Description	of C	perating Method):	-	
Al	Allowable Emissions of				
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allo Emissions:	wable	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emission lb/hour	ons: tons/year	
5.	Method of Compliance:			,	
6.	6. Allowable Emissions Comment (Description of Operating Method):				

EMISSIONS UNIT INFORMATION Section [1] SJRPP - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION
Page [3] of [4]
Particulate Matter - PM

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 Efficie	ency of Control:		
3. Potential Emissions: 368.64 lb/hour 1,614	4. Synth	netically Limited? es 🛛 No		
5. Range of Estimated Fugitive Emissions (as to tons/year	applicable):			
6. Emission Factor: 0.03 lb/MMBtu Reference: 40 CFR 60 Subpart Da and Permi	it No. 0310045-020-AV	7. Emissions Method Code: 0		
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month	Period: o:		
9.a. Projected Actual Emissions (if required): 9.b. Projected Monitoring Period: tons/year				
10. Calculation of Emissions: Each unit: Hourly emissions: 0.03 lb/MMBtu x 6,144 MMBtu/hr = 184 lb/hr Each unit: Annual emissions: 184 lb/hr x 8,760 hr/yr x ton/2000 lb = 806 ton/yr				
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for both boilers.				

Section [1] SJRPP - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION

Page [3] of [4] 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 1 of 1

1. Basis for Allowable Emissions Code: 2. Future Effective Emissions:		2. Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions:		
	0.03 lb/MMBtu	368.64 lb/hour 1,614 tons/year		
5.	Method of Compliance: EPA Method 5B; 40 CFR 52.21(b)21(v) and (33	3)		
6.	Allowable Emissions Comment (Description of Operating Method): 40 CFR 60 Subpart Da and Permit No. 0310045-020-AV Total for both boilers.			
Al	lowable 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):		
,				
All	lowable 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 and 2

POLLUTANT DETAIL INFORMATION
Page [4] of [4]
Sulfuric Acid Mist - SAM

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

2 Takal Damana Efficiency of Cantaral		
2. Total Percent Efficiency of Control:		
4. Synthetically Limited?		
3 tons/year ☐ Yes ⊠ No		
s applicable):		
7. Emissions Method Code: 0		
8.b. Baseline 24-month Period:		
From: To:		
9.b. Projected Monitoring Period:		
11. Potential, Fugitive, and Actual Emissions Comment: Permit No. 0310045-017-AC considered that the actual annual emissions due to the SCR would not exceed the SAM annual emissions (1,317 + 6 = 1,323 tons/yr). SAM included to document revised compliance method: EPA Method CTM-013 (Method 8A).		

Section [1] SJRPP - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION Page [4] of [4] Sulfuric Acid Mist - SAM

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 1 of 1

	The waste Emissions 1 me waste Emissions 1 e			
1.	 Basis for Allowable Emissions Code: OTHER Future Effective Date of Allowable Emissions: 		wable	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emission	ons:
			lb/hour	tons/year
5.	Method of Compliance: EPA Method CTM-013 (Method 8A)			
6.	Allowable Emissions Comment (Description DEP Order No. 09-I-AP, issued 6/22/09	of (Operating Method):	
Al	lowable Emissions Allowable Emissions	<	of	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allov Emissions:	wable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emission	ns:
			lb/hour	tons/year
	Method of Compliance:	<u> </u>		
6.	Allowable Emissions Comment (Description	01 (Operating Method):	
Al	lowable Emissions Allowable Emissions	c	f	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allov Emissions:	vable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emission lb/hour	ons: 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.

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

1.	Visible Emissions Subtype: VE20	2. Basis for Allowable	-	
		⊠ Rule	Other	
3.	Allowable Opacity:	*		
		cceptional Conditions:	27 %	
	Maximum Period of Excess Opacity Allowe	ed:	6 min/hour	
4.	Method of Compliance: Continuous opacity	y monitors		
5.	Visible Emissions Comment:			
	40 CFR 60.42a(b).			
	40 Of 17 00.42a(b).			
Vis	<u>Visible Emissions Limitation:</u> Visible Emissions Limitation <u>2</u> of <u>2</u>			
1.	Visible Emissions Subtype:	2. Basis for Allowable	Opacity:	
	VE99	⊠ Rule	☐ Other	
3.	Allowable Opacity:		<u> </u>	
	Normal Conditions:	ceptional Conditions:	100 %	
	Maximum Period of Excess Opacity Allowe	ed:	60 min/hour	
4.	Method of Compliance: COMS			
	•			
5.	Visible Emissions Comment:			
	Evenes emissions reculting from etertus, oh	utdown and malfunation t	for no more than	
	Excess emissions resulting from startup, she 2 hours in any 24-hour period. Rule 62-210.7		or no more than	
	polical (tale of 210)	(-),		

Section [1] SJRPP - Boiler Nos. 1 and 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 4

1.	Parameter Code:	2.	Pollutant(s): NOx		
3.	CMS Requirement:	\boxtimes	Rule		
4.	Monitor Information Manufacturer: TECO Model Number: 42i		Serial Number: See comment		
5.	Installation Date: See comment	6.	Performance Specification Test Date: See comment		
7.	Continuous Monitor Comment: Serial Number: SJRPP Boiler No. 1: 0295772 Serial Number: SJRPP Boiler No. 2: 0295748				
	Installation Date: SJRPP Boiler No. 1: March Installation Date: SJRPP Boiler No. 2: May 20		7		
	Test Date: SJRPP Boiler No. 1: March 2007 Test Date: SJRPP Boiler No. 2: June 2007				
Co	Continuous Monitoring System: Continuous Monitor 2 of 4				
1.	Parameter Code: EM	2.	Pollutant(s): SO2		
3.	CMS Requirement:	\boxtimes	Rule		
4.	Monitor Information Manufacturer: TECO				
	Model Number: 43i	_	Serial Number: See comment		
5.	Installation Date: See comment	6.	Performance Specification Test Date: See comment		
7.	Continuous Monitor Comment: Serial Number: SJRPP Boiler No. 1: 06104165 Serial Number: SJRPP Boiler No. 2: 06310193 Installation Date: SJRPP Boiler No. 1: March Installation Date: SJRPP Boiler No. 2: May 20	327 2007	•		
	Test Date: SJRPP Boiler No. 1: March 2007 Test Date: SJRPP Boiler No. 2: June 2007				

Section [1]

SJRPP - Boiler Nos. 1 and 2

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

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

Continuous Monitoring System: Continuous Monitor 3 of 4

1.	Parameter Code: EM	2.	Pollutant(s): SO2
3.	CMS Requirement:	\boxtimes	Rule
4.	Monitor Information Manufacturer: TECO		
	Model Number: 410i		Serial Number:
5.	Installation Date: See comment	6.	Performance Specification Test Date: See comment
7.	Continuous Monitor Comment: Serial Number: SJRPP Boiler No. 1: 06334196 Serial Number: SJRPP Boiler No. 2: 06186173 Installation Date: SJRPP Boiler No. 1: March Installation Date: SJRPP Boiler No. 2: May 20 Test Date: SJRPP Boiler No. 1: March 2007 Test Date: SJRPP Boiler No. 2: June 2007	300 2007	
Co	ntinuous Monitoring System: Continuous	Mor	nitor 4 of 4
1.	Parameter Code: VE	2.	Pollutant(s):
3.	CMS Requirement:	\boxtimes	Rule
4.	Monitor Information Manufacturer: LAND		
	Model Number: 4500MKII++		Serial Number: See comment
5.	Installation Date: September 21, 2002	6.	Performance Specification Test Date: October 23, 2002
7.	Continuous Monitor Comment: Serial Number: SJRPP Boiler No. 1: 0295772 Serial Number: SJRPP Boiler No. 2: 0295748		

EMISSIONS UNIT INFORMATION Section [1] SJRPP Boiler Nos. 1&2

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

	Ι.	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: SJRPP-EU1-I1 Previously Submitted, Date
	2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date July, 2008
	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: Previously Submitted, Date August, 2009
	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 July, 2008
L		☐ Not Applicable (construction application)
	5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date July, 2008 Not Applicable
Γ	6.	Compliance Demonstration Reports/Records:
		Attached, Document ID:
		Test Date(s)/Pollutant(s) Tested:
		Previously Submitted, Date:
		Test Date(s)/Pollutant(s) Tested:
		☐ To be Submitted, Date (if known):
		Test Date(s)/Pollutant(s) Tested:
		□ Not Applicable
		Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
	7.	Other Information Required by Rule or Statute: Attached, Document ID: Not Applicable
П		Attached, Document ib \textstyle Not Applicable

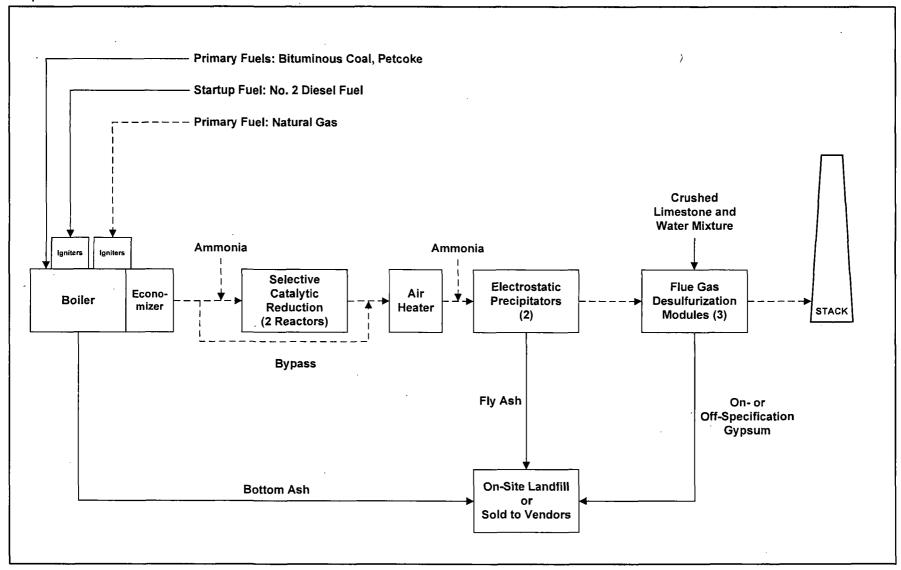
Section [1] SJRPP Boiler Nos. 1&2

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)):		
	Attached, Document ID: Not Applicable		
2.	Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-		
	212.500(4)(f), F.A.C.):		
	Attached, Document ID: Not Applicable		
3.	Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only)		
	Attached, Document ID: Not Applicable		
Ad	Iditional Requirements for Title V Air Operation Permit Applications		
1.	Identification of Applicable Requirements:		
2.	Compliance Assurance Monitoring: Attached, Document ID: Not Applicable		
3.	Alternative Methods of Operation: ☑ Attached, Document ID: SJRPP-EU1-IV3 ☐ Not Applicable		
4.	Alternative Modes of Operation (Emissions Trading): Attached, Document ID:		
Ad	lditional Requirements Comment		
	For Section I, Item 6, Compliance Demonstration and Reports/Records, Section 60.50Da will be followed when determining compliance when co-firing natural gas:		
§ 6	0.50Da Compliance determination procedures and methods.		
	(d) The owner or operator shall determine compliance with the NO _X standard in §60.44Da as follows:		
	(1) The appropriate procedures in Method 19 of appendix A of this part shall be used to determine the emission rate of NO_X .		
	(2) The continuous monitoring system in §60.49Da(c) and (d) shall be used to determine the concentrations of NO_X and CO_2 or O_2 .		

ATTACHMENT SJRPP-EU1-I1
PROCESS FLOW DIAGRAM



Attachment SJRPP-EU1-I1 Process Flow Diagram SJRPP Boiler Nos. 1 and 2 (EU 016 and 017)

Process Flow Legend
Solid/Liquid
Gas
Steam

Filename: SJRPP-EU1-I1.vsd

Date:

09/24/10



ATTACHMENT SJRPP-EU1-IV1
AC PERMIT

PERMITTEE

Jacksonville Electric Authority (JEA) 21 West Church Street Jacksonville, Florida 32202

Authorized Representative:
Mr. Michael J. Brost
Vice President – Electric System

Air Permit No. 0310045-029-AC Permit Expires: June 30, 2011 Minor Air Construction Permit St. Johns River Power Park (SJRPP) Units 1 and 2 Continuous Use of Natural Gas

PROJECT

This is the final air construction permit, which authorizes Units 1 and 2 to fire natural gas on a continuous basis during normal operations. The proposed project will be conducted at the existing SJRPP, which is an electrical generating facility categorized under Standard Industrial Classification No. 4911. The existing facility is located in Duval County at 11201 New Berlin Road, Jacksonville, Florida. The UTM coordinates are Zone 17, 446.90 km East and 3359.15 km North.

This final permit is organized into the following sections: Section 1 (General Information), Section 2 (Administrative Requirements), Section 3 (Emissions Unit Specific Conditions), and Section 4 (Appendices).

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C., and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C., for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Joseph Kahn, Director

Division of Air Resource Management

Effective Date

CERTIFICATE OF SERVICE

	KITICATE OF SERVICE	
The undersigned duly designated deputy ago	ency clerk hereby certifies that this Final A	ir Permit package
(including the Final Determination and Fina	al Permit) was sent by electronic mail, or a	link to these documents
made available electronically on a publicly	accessible server, with received receipt req	uested before the close of
business on to the	persons listed below.	
Mr. Bert Gianazza, P.E., JEA (giannb@jea.d Mr. Kennard F. Kosky, P.E., Golder Associator. Mr. Chris Kirts, DEP NED (christopher.kirt Mr. Richard Robinson, Jacksonville EQD (r Mr. Mike Halpin, DEP Site Certification (m Ms. Heather Abrams, EPA Region 4 (abram Ms. Kathleen Forney, EPA Region 4 (forney Ms. Vickie Gibson, DEP BAR Reading File	ates, Inc. (ken_kosky@golder.com) s@dep.state.fl.us) cobinson@coj.net) nike.halpin@dep.state.fl.us) ns.heather@epa.gov) y.kathleen@epa.gov)	
	Clerk Stamp	
	FILING AND ACKNOWLEDGME pursuant to Section 120.52(7), Florida designated agency clerk, receipt of whacknowledged.	a Statutes, with the
	(Clerk)	(Date)
•		

FACILITY DESCRIPTION

The existing facility consists of the following emissions units.

Facility	Facility ID No. 0310045		
İD No.	Emission Unit Description		
SJRPP .	Regulated Emissions Units		
016	Unit 1		
017	Unit 2		
022	Bottom Ash, Fly Ash and Gypsum Handling and Storage Operations		
023	Fuel and Limestone Handling and Storage Operations		
024	Cooling Towers		
Unregu	lated Emissions Units		
019-021	19-021 Diesel and Gasoline Storage Tanks		

PROJECT DESCRIPTION

This project authorizes the continuous firing of natural gas in existing Units 1 and 2 during normal operations. The project is not subject to PSD preconstruction review because there will be no significant emissions increases for any pollutant. The proposed project will not change the applicability of any existing state or federal requirements which apply to the existing authorized fuels. The units were originally subject to the federal New Source Performance Standards in Subpart Da, Part 60, Title 40 of the Code of Federal Regulations; therefore, the permit specifies the original standard for nitrogen oxides (NO_X) for firing natural gas as well as the method for prorating the NO_X standard when firing multiple fuels.

This project will modify the following emissions units.

Facility ID No. 0310045		
ID No. Emission Unit Description		
016	Unit 1	
017	Unit 2	

REGULATORY CLASSIFICATION

- The existing facility is a major source of hazardous air pollutants (HAP).
- The existing facility operates units subject to the acid rain provisions of the Clean Air Act.
- The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The existing facility is a major source of air pollution in accordance with Rule 62-212.400(PSD), F.A.C.
- Units 1 and 2 are subject to applicable provisions in NSPS Subpart Da of 40 CFR 60.
- The facility operates existing Boilers Units 1 and 2, which are subject to the Clean Air Interstate Rule (CAIR) in accordance with 40 CFR 96.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

- Permitting Authority: All documents related to applications for permits to construct, operate or modify emissions unit shall be submitted to the Bureau of Air Regulation, Florida Department of Environmental Protection (Department), at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of all such documents shall also be submitted to the Compliance Authority.
- 2. <u>Compliance Authority</u>: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Duval County Environmental and Compliance Department, Environmental Quality Division, 407 North Laura Street, 3rd Floor, Jacksonville, Florida 32202 and Telephone Number 904-255-7100 and Telephone Number 904-630-3484.
- 3. <u>Appendices</u>: The following appendices are attached as part of this permit: Appendix A (Citation Formats and Glossary of Common Terms) and Appendix B (General Conditions).
- 4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S., and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C., and follow the application procedures in Chapter 62-4, F.A.C. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
- 5. <u>Construction and Expiration</u>: The Department may extend the expiration date upon a satisfactory showing that an extension is justified. Such a request shall be submitted to the Department's Bureau of Air Regulation at least 60 days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, 62-210.300(1) and 62-212.400(12), F.A.C.]
- 6. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
- 7. <u>Modifications</u>: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. This permit authorizes construction of the referenced facilities. [Chapters 62-210 and 62-212, F.A.C.]
- 8. <u>Title V Air Operation Permit</u>: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

Boiler Units 1 and 2 (EU-016 and EU-017)

The specific conditions of this subsection apply to the following emissions units after the authorized work is completed.

	EU ID	Emissions Unit Description
	016	Boiler Unit 1
ſ	017	Boiler Unit 2

EXISTING PERMITS

1. Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for these emissions units. Unless otherwise specified, these conditions are in addition to all other applicable permit conditions and regulatory requirements. The permittee shall continue to comply with the conditions of those permits, which include restrictions and standards regarding capacities, production, operation, fuels, emissions, monitoring, recordkeeping, reporting, etc. [Rule 62-4.070(3), F.A.C.]

METHODS OF OPERATION

2. <u>Natural Gas Firing</u>: The permittee is authorized to continuously fire natural gas in Units 1 and 2 during normal operations. For each unit, there are 28 natural gas burners rated at 25 MMBtu/hour per burner. The maximum total heat input to each unit from firing natural gas is 700 million British thermal units per hour (MMBtu/hour).

{Permitting Note: Natural gas firing will only achieve approximately 11% of full load operation. Other authorized fuels will be co-fired with natural gas to achieve full load operation.}

[Application 0310045-029-AC]

EMISSION LIMITATIONS AND STANDARDS

- 3. <u>Nitrogen Oxides (NOx)</u>: On and after the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whichever date comes first, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility (emissions unit) any gases that contain NOx (expressed as NO₂) in excess of the following emission limit, based on a 30-day rolling average basis, and NOx reduction requirement:
 - (1) 0.20 lb/million Btu [40 CFR 60.44Da(a)(1)], and
 - (2) 25 percent reduction [40 CFR 60.44Da(a)(2)]. Compliance with the NO_X emission limitation under 40 CFR 60.44Da(a)(1) constitutes compliance with the percent reduction requirements under §60.44Da(a)(2). [40 CFR 60.48Da(b)]
- 4. <u>Nitrogen Oxides (NOx)</u>: When two or more fuels are combusted simultaneously, the applicable standard is determined by proration using the following formula:

$$E_{NOX} = (0.20w + 0.30x + 0.60z)/100$$

Where:

- E_{NOX} = Applicable standard for NO_X when multiple fuels are combusted simultaneously (lb/MMBtu of heat input);
- w = Percentage of total heat input derived from the combustion of fuels subject to the standard of 0.20 lb/MMBtu of heat input for authorized gaseous fuels;
- x = Percentage of total heat input derived from the combustion of fuels subject to the standard of 0.30 lb/MMBtu of heat input for authorized liquid fuels;

SECTION 3. EMISSIONS UNITS SPECIFIC CONDITIONS

Boiler Units 1 and 2 (EU-016 and EU-017)

z = Percentage of total heat input derived from the combustion of fuels subject to the standard of 0.60 lb/MMBtu of heat input for authorized bituminous coal or a blend of bituminous coal with petcoke.

[40 CFR 60.44Da(c)]

COMPLIANCE PROVISIONS

- 5. <u>Compliance Demonstrations</u>: The owner or operator of an affected facility subject to emission limitations in this subpart shall determine compliance as follows: Compliance with applicable 30-day rolling average NO_X emission limitations is determined by calculating the arithmetic average of all hourly emission rates for NO_X for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction. [40 CFR 60.48Da(g)(1)]
- 6. Natural Gas Firing: The permittee shall maintain sufficient records to document the firing of natural gas. [Rule 62-4.070(3), F.A.C.]

ATTACHMENT SJRPP-EU1-IV3

ALTERNATIVE METHODS OF OPERATION

ATTACHMENT SJRPP-EU1-IV3 ALTERNATIVE METHODS OF OPERATION

St. Johns River Power Park (SJRPP) Boiler Nos. 1 and 2 are permitted to operate while firing coal, a coal blend with a maximum of 30 percent petroleum coke (by weight) (30-day rolling average), "on-specification" used oil, or a blend of these fuels. In addition, these units can continuously fire natural gas during normal operations with a natural gas-firing heat input limitation of 700 MMBtu/hr per unit. No. 2 distillate fuel oil is also permitted to be used for startup, shutdown, low load operation and flame stabilization.

The maximum weight of petroleum coke burned shall not exceed 150,000 pounds per hour, based on a 30-day rolling average.

"On-specification" used oil containing PCBs above the detectable level of 2 ppm shall not be used for startup or shutdown. "On-specification" used oil containing PCBs between 2 and 49 ppm can only be fired when the emission unit is at normal operating temperatures.



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Africa + 27 11 254 4800
Asia + 852 2562 3658
Australasia + 61 3 8862 3500
Europe + 356 21 42 30 20
North America + 1 800 275 3281
South America + 55 21 3095 9500

solutions@golder.com www.golder.com

Golder Associates Inc. 6026 NW 1st Place Gainesville, FL 32607 USA (352) 336-5600 - Phone (352) 336-6603 - Fax

