



APPLICATION FOR TITLE V PERMIT RENEWAL

JEA – NGS / SJRPP / Separations Technology, LLC

Prepared For: JEA
21 West Church Street
Jacksonville, FL 32202

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

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1 copy – Golder Associates Inc.

Permit Application

May 2013

123-87691

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**APPLICATION FOR AIR PERMIT
LONG FORM**



Department of Environmental Protection

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MAY 20 2013

Division of Air Resource Management

DIVISION OF AIR RESOURCE MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG TERM

I. APPLICATION INFORMATION

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

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

Air Operation Permit – Use this form to apply for:

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

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: JEA	
2. Site Name: Northside Generating Station (NGS)/St. Johns River Power Park (SJRPP)/ Separations Technology, LLC	
3. Facility Identification Number: 0310045	
4. Facility Location... Street Address or Other Locator: 4377 Heckscher Drive 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. Facility Contact Name: Jay A. Worley, Director of Environmental Programs	
2. Facility Contact Mailing Address... Organization/Firm: JEA Street Address: 21 West Church Street City: Jacksonville State: FL Zip Code: 32202	
3. Facility Contact Telephone Numbers: Telephone: (904) 665-8729 ext. Fax: (904) 665-7376	
4. Facility Contact E-mail Address: worlja@jea.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 5-20-2013	3. PSD Number (if applicable):
2. Project Number(s): 0310045-039-A1	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

This application is for the renewal of Title V Permit No. 0310045-038-AV for the Northside Generating Station (NGS)/St. Johns River Power Park (SJRPP)/Separations Technology, LLC facility, which expires on December 31, 2013.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
003	NGS Boiler No. 3	AF2A	N/A
006	NGS: Combustion Turbine No. 3	AF2A	N/A
007	NGS: Combustion Turbine No. 4	AF2A	N/A
008	NGS: Combustion Turbine No. 5	AF2A	N/A
009	NGS: Combustion Turbine No. 6	AF2A	N/A
016	SJRPP Boiler No. 1	AF2A	N/A
017	SJRPP Boiler No. 2	AF2A	N/A
022	SJRPP: Bottom Ash, Fly Ash and Gypsum Handling and Storage Operations	AF2B	N/A
023	SJRPP: Fuel and Limestone Handling and Storage Operations	AF2B	N/A
024	SJRPP: Cooling Towers (2)	AF2C	N/A
027	NGS Boiler No. 1	AF2A	N/A
026	NGS Boiler No. 2	AF2A	N/A
028	NGS: Material Handling and Storage Operations	AF2A	N/A
029	NGS: Crusher House Building Baghouse Exhaust	AF2A	N/A
031	NGS: Fuel Silos Dust Collectors	AF2A	N/A
033	NGS: Limestone Dryers/Mills Building	AF2A	N/A
034	NGS: Limestone Prep Building Dust Collectors	AF2A	N/A

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
035	NGS: Limestone Silos Bin Vent Filters	AF2A	N/A
036	NGS: Fly Ash Transport Blower Discharge	AF2A	N/A
037	NGS: Fly Ash Silos Bin vent	AF2A	N/A
038	NGS: Bed Ash Silos Bin vents	AF2A	N/A
042	NGS: AQCS Pebble Lime Silo	AF2A	N/A
051	NGS: Fly Ash Slurry Mix System Vents	AF2A	N/A
052	NGS: Bed Ash Slurry Mix System Vents	AF2A	N/A
053	NGS: Bed Ash Surge Hopper Bin Vents	AF2A	N/A
044	ST: Separator A Filter - Receiver Vent	AF2B	N/A
045	ST: Separator B Filter - Receiver Vent	AF2B	N/A
046	ST: Separator Dust Collector Vent	AF2B	N/A
047	ST: Clean-up Vacuum Vent	AF2B	N/A
048	ST: Fly Ash Surge Bin Vent	AF2B	N/A
049	ST: Mineral Additive Storage Bin Vent	AF2B	N/A
050	ST: Gas-Fired Dryer Stack	AF2B	N/A

Application Processing Fee

Check one: Attached - Amount: \$ _____ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

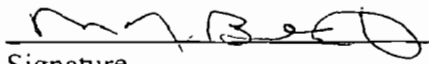
Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative Telephone Numbers... Telephone: () ext. Fax: ()
4. Owner/Authorized Representative E-mail Address:
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 _____ Date

APPLICATION INFORMATION

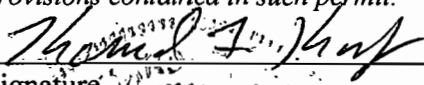
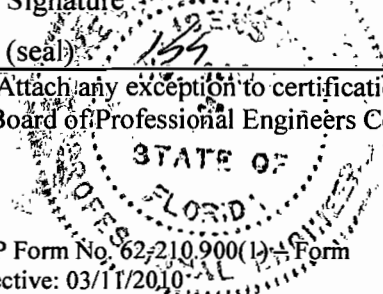
Application Responsible Official Certification

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: Mr. Michael J. Brost, P.E., President, Electric Systems
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input checked="" type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input checked="" type="checkbox"/> The designated representative at an Acid Rain source or CAIR source.
3. Application Responsible Official Mailing Address... Organization/Firm: JEA Street Address: 21 W. Church Street City: Jacksonville State: FL Zip Code: 32202
4. Application Responsible Official Telephone Numbers... Telephone: (904) 665-7547 ext. Fax: (904) 665-4238
5. Application Responsible Official E-mail Address: Brosmj@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 <u>5-14-13</u> 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: Ken_Kosky@golder.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input checked="" type="checkbox"/> , if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/> , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input 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 _____ Date <u>5/15/13</u> 

* 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 NGS, SJRPP, and the Separations Technology, LLC facility.			

Facility Contact

1. Facility Contact Name: Jay A. Worley, Director of Environmental Programs
2. Facility Contact Mailing Address... Organization/Firm: JEA Street Address: 21 West Church Street City: Jacksonville State: FL Zip Code: 32202
3. Facility Contact Telephone Numbers: Telephone: (904) 665-8729 ext. Fax: (904) 665-7376
4. Facility Contact E-mail Address: worlja@jea.com

Facility Primary Responsible Official

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

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: () ext. Fax: ()
4. Facility Primary Responsible Official 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 checked="" 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 Boiler Nos. 1 and 2 (EUs 016 and 017) and NGS Boiler Nos. 1 and 2 (EUs 026 and 027) are subject to NSPS 40 CFR 60 Subpart Da. EUs 023, 029, and 031 are subject to 40 CFR 60 Subpart Y. EUs 033, 034, and 035 are subject to 40 CFR 60 Subpart OOO. The facility has several reciprocating internal combustion engines (RICE) that are subject to 40 CFR 62 Subpart ZZZZ. These RICE are listed in Attachment JEA-FI-CV6.	

List of Pollutants Emitted by Facility

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

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-FI-C1</u> <input type="checkbox"/> Previously Submitted, Date: _____
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>See EU sections</u> <input type="checkbox"/> Previously Submitted, Date: _____
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-FI-C3</u> <input type="checkbox"/> Previously Submitted, Date: _____

Additional Requirements for Air Construction Permit Applications

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

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

- | |
|---|
| 1. List of Exempt Emissions Units:
<input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> 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)
<input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-FI-CV1</u> <input type="checkbox"/> 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)
<input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-FI-CV2</u>
<input type="checkbox"/> Not Applicable (revision application with no change in applicable requirements) |
| 3. Compliance Report and Plan: (Required for all initial/revision/renewal applications)
<input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-FI-CV3</u>
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)
<input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-FI-CV4</u>
<input type="checkbox"/> Equipment/Activities Onsite but Not Required to be Individually Listed
<input type="checkbox"/> Not Applicable |
| 5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only)
<input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-FI-CV5</u> <input type="checkbox"/> Not Applicable |
| 6. Requested Changes to Current Title V Air Operation Permit:
<input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-FI-CV6</u> <input type="checkbox"/> 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: JEA-FI-CA1a Previously Submitted, Date: _____

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: JEA-FI-CA1b Previously Submitted, Date: _____

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)):

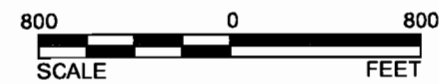
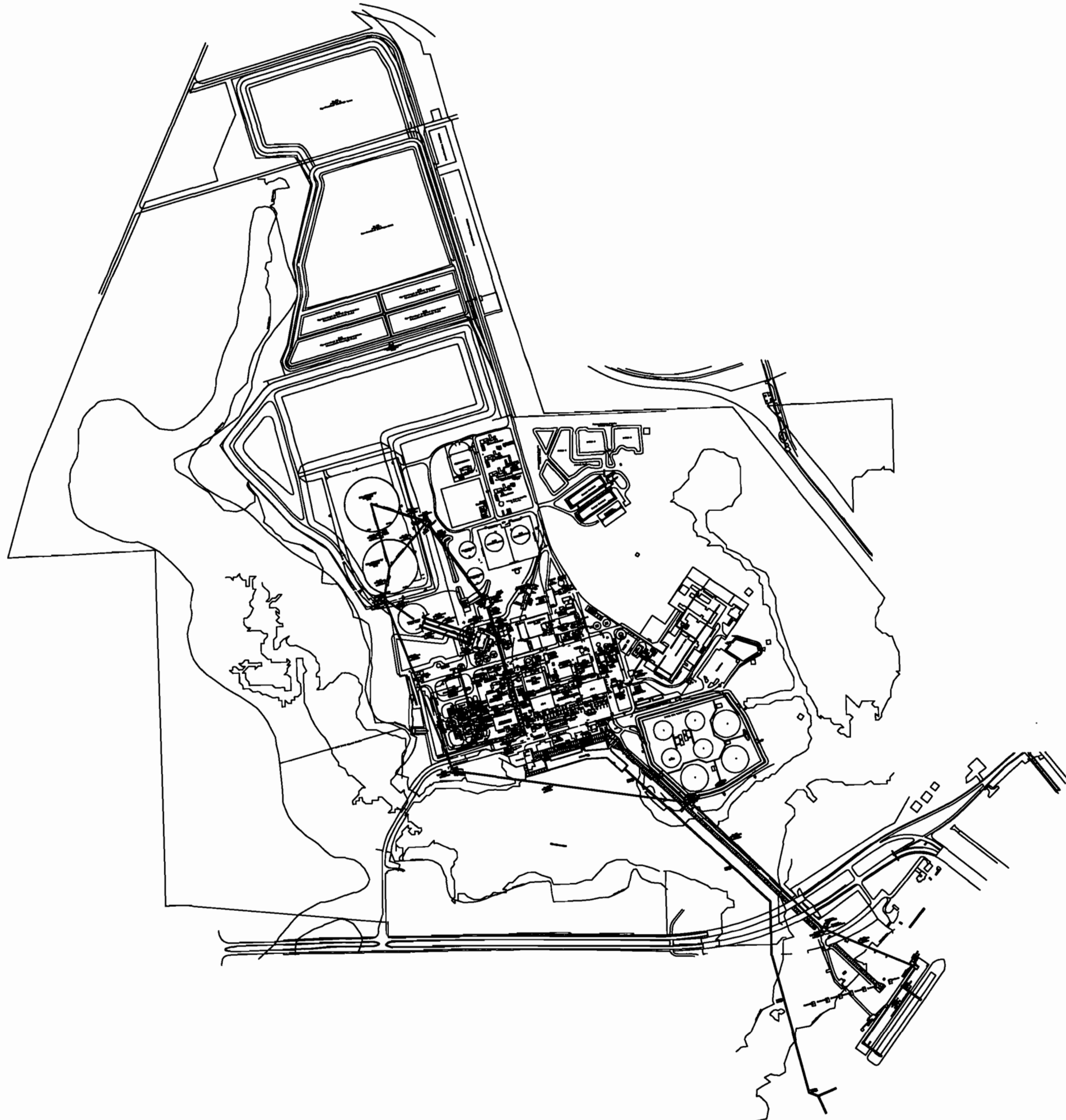
Attached, Document ID: JEA-FI-CA2 Previously Submitted, Date: _____

Not Applicable (not a CAIR source)

Additional Requirements Comment

ATTACHMENT JEA-FI-C1
FACILITY PLOT PLAN

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PROJECT
JEA NGS / SJRPP
TITLE V RENEWAL

TITLE
NORTHSIDE GENERATING STATION

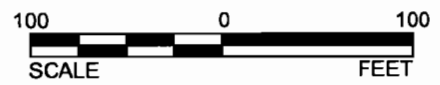
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	REVIEW	SKM	03/29/2013	

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NOTES

Emmision Unit	Description
026	NGS Boiler No. 2
027	NGS Boiler No. 1
003	NGS Boiler No. 3



PROJECT JEA NGS / SJRPP
TITLE V RENEWAL

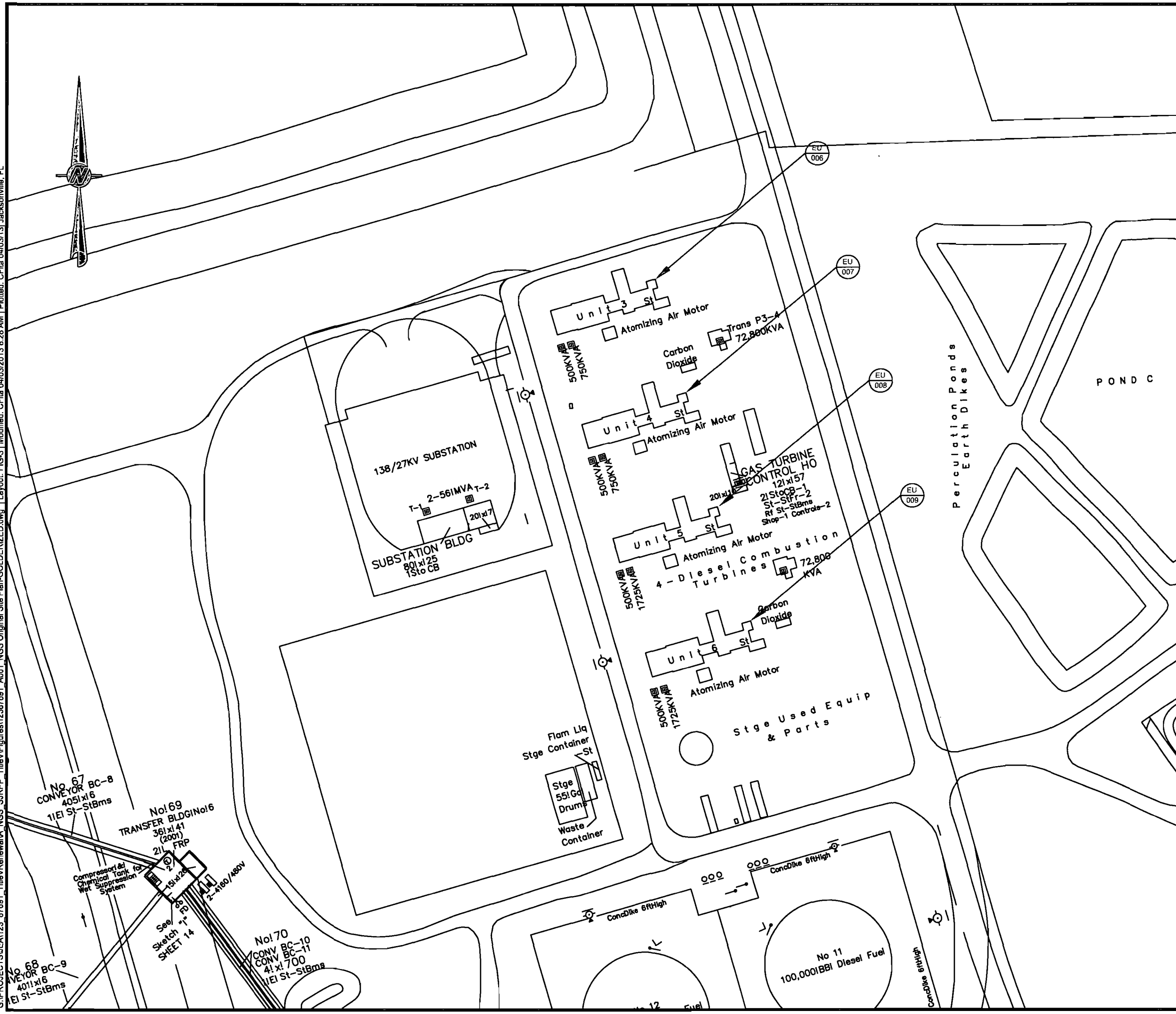
NORTHSIDE GENERATING STATION

PROJECT No.	123-87691	FILE No.	12387691_A001
DESIGN		SCALE	AS SHOWN
CADD	CF	04/02/2013	
CHECK	SKM	03/29/2013	
REVIEW	SKM	03/29/2013	

JEA-FI-C1b

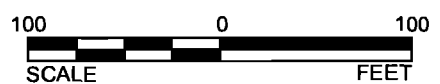


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NOTES

Emmission Unit	Description
006	NGS Combustion Turbine No. 3
007	NGS Combustion Turbine No. 4
008	NGS Combustion Turbine No. 5
009	NGS Combustion Turbine No. 6



PROJECT
**JEA NGS / SJRPP
 TITLE V RENEWAL**

TITLE
NORTHSIDE GENERATING STATION

	PROJECT No.	123-87691	FILE No.	12387691_A001
	DESIGN		SCALE	AS SHOWN
	CADD	CF	04/02/2013	
	CHECK	SKM	03/29/2013	
	REVIEW	SKM	03/21/2013	

JEA-FI-C1c

ATTACHMENT JEA-FI-C3

**PRECAUTIONS TO PREVENT EMISSIONS OF
UNCONFINED PARTICULATE MATTER**

**ATTACHMENT JEA-FI-C3
PRECAUTIONS TO PREVENT EMISSIONS OF
UNCONFINED PARTICULATE MATTER**

Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- Chemical or water application to unpaved roads or unpaved yard areas
- Paving and maintenance of roads, parking areas, and plant grounds
- Landscaping and planting of vegetation
- Regular mowing of grass and care of vegetation
- Limiting access to plant property by unnecessary vehicles
- Storage of bagged chemical products in weather-tight buildings (except for fertilizer)
- Prompt cleanup of spilled powdered chemical products
- Confining abrasive blasting where possible
- Other techniques, as necessary

Also, for the solid waste disposal area, wetting agents shall be applied as needed (Permit No. 0310045-038-AV).

ATTACHMENT JEA-FI-CV1
LIST OF INSIGNIFICANT ACTIVITIES

ATTACHMENT JEA-FI-CV1

LIST OF INSIGNIFICANT ACTIVITIES

A list of existing units and/or activities that are considered to be insignificant and are exempted from Title V permitting under Rule 62-213.430(6) is presented below. The exempt activities listed are also those activities that are included in Rules 62-210.300(3)(a) and 62-210.300(3)(b)1, which would not exceed the thresholds in Rule 62-213.430(6)(b)3.

Brief Description of Emissions Units and/or Activities:

I. Northside Generating Station (NGS)

A. Storage Tanks

1. JEA Tank	Magnesium Oxide	9,600 gallons
2. JEA Tank	Petrolite	6,500 gallons
3. JEA Tank	Mineral Acid – East	12,200 gallons
4. JEA Tank	Mineral Acid – West	10,000 gallons
5. JEA Tank	Mineral Acid – CWTS	5,200 gallons
6. JEA Tank	Caustic – East	12,200 gallons
7. JEA Tank	Caustic – West	10,000 gallons
8. JEA Tank	Hypochlorite – RR Building	2,000 gallons
9. JEA Tank	Hypochlorite – Riverfront	12,500 gallons
10. JEA Tank	Hypochlorite – Potable	5,500 gallons
11. JEA Tank	Lube Oil	18,000 gallons
12. JEA Tank	Hypochlorite – Units	2,000 gallons
13. JEA Tank	Sodium Bromide	2,300 gallons
14. JEA Tank	Ammonia	40,000 gallons

II. St Johns River Power Park (SJRPP)

A. Storage Tanks.

1. JEA Tank	Lube Oil	10,000 gallons
2. JEA Tank	Lube Oil	18,000 gallons
3. JEA Tank	Sulfuric Acid	6,000 gallons
4. JEA Tank	Sulfuric Acid	10,000 gallons
5. JEA Tank	Sulfuric Acid	6,000 gallons
6. JEA Tank	Sulfuric Acid	6,000 gallons
7. JEA Tank	Caustic	10,000 gallons
8. JEA Tank	Caustic	6,000 gallons
9. JEA Tank	Hydrazine	6,000 gallons
10. JEA Tank	Hypochlorite	6,000 gallons
11. JEA Tank	Anhydrous Ammonia	79,390 gallons
12. JEA Tank	Anhydrous Ammonia	79,390 gallons
13. JEA Tank	Hypochlorite	5,000 gallons
14. JEA Tank	Hypochlorite	3000 gallons

III. NGS CFB Boilers Nos. 1 and 2

1. Receiving, Storage and Reclamation of Fuel Additives. The facility is allowed to receive, store and reclaim fuel additives for usage in the CFB Boilers Nos. 1 and 2 to prevent agglomeration of the bed material in the boilers. The fuel additives, such as naturally occurring clays containing kaolinite or montmorillonite, along with olivine, bauxite, or granite in the form of a raw material and/or as a component of coal bottom ash, will be delivered by conveyor belts to the fuel bunkers for storage prior to being fed into the boilers, where the projected usage is less than 100 tons per day per boiler.

Two Quonset huts (huts; one for each dome with dimensions of 35 feet wide, 50 feet long and 21 feet high) will be installed for storage purposes, with access only from one end to avoid wind erosion issues. They will be located near an entrance into each dome to minimize travel distance to the fuel conveyor system located inside each dome. The fuel additives will be brought in by covered trucks, at about 25 tons per load, and dumped into the Quonset hut opening prior to being moved further back into the storage hut using a front-end loader. After storage, the fuel additives will be reclaimed by a front-end loader and taken inside the dome for loading onto the fuel's conveyor belt. A front-end loader or similar equipment will be used to keep the roadway surfaces clean of any spilled materials. A water truck or vacuum street sweeper will be used to clean the roadways daily or as needed to suppress unconfined PM emissions from any spilled materials that were not removed by the front-end loader.

IV. Solid Fuel Handling Facilities at the NGS and SJRPP

1. Solid fuel handling alternate operating scenario with capability to transport, using trucks, solid fuels (coal and petroleum coke) between the respective solid fuel handling facilities at NGS and SJRPP in the event of equipment failure, fuel delivery disruption or disproportionate fuel inventory.

V. SJRPP Removal of Landfilled Ash

1. Future anticipated activities at SJRPP include the removal of landfilled ash for use off-site. A front-end loader will be used to dig the ash up and load the material directly on licensed dump trucks, which will haul the ash off-site. The stockpiled ash is expected to be moist and dust free.

VI. NGS Limestone Feed System Fabric Filter Vents (6)

1. System is designed to collect limestone dust and return it to the limestone feed system. There are six emission points (baghouses). The process equipment is located between the limestone silos and the injection of limestone into the CFBs.

VII. NGS By-Product Reclamation

1. By-product reclamation at the by-product storage area (BSA). Fugitive particulate emissions will be minimized by using storage enclosures and dust suppression sprays/wetting agents.

VIII. NGS Emergency Storage of Solid Fuel outside the Coal Domes

1. During emergency situations and unscheduled outages, JEA will store up to 20,000 tons of solid fuel in a bermed location (100 x 200 ft) adjacent to the existing fuel storage dome for up to 3 weeks. Any runoff from this area will be collected within the berm and pumped by vacuum truck and placed in the on-site presedimentation basin thence to wastewater treatment facility. Water shall be applied, as necessary, to this area to control fugitive emissions. This temporary outside storage of solid fuel meets the reasonable precaution requirements for unconfined emissions of particulate matter and general visible emission requirements in accordance with Florida Administrative Code Rules 62-296.320(4)(c) and 62-296.320(4)(b) respectively.

IX. Two cooling towers for providing cooling for the air quality control systems at NGS

1. The cooling towers are generically exempted in accordance with Rule 62-210.300(3)(b)(1), F.A.C.

X. SJRPP SCR Limestone System

1. The limestone system consists of limestone handling, conveying and storage and will be used for increasing the calcium content for some fuels to 5 percent in the ash and hence mitigate the potential contamination of arsenic.

XI. Miscellaneous loading and unloading activities

1. Miscellaneous loading and unloading activities, such as bringing in Kaolinite or other inert fuel additives by truck or rail, taking Byproduct Storage Area material out by truck or rail, and taking dry ash from the silos out by truck or rail.

XII. Other Insignificant Emissions Units and/or Activities

1. Any other emissions unit or activity that:
 - a. Is exempted from the requirement to obtain an air construction permit as cited in Rule 62-213.430(6)(a), F.A.C.

And meets all of the following criteria pursuant to Rule 62-213.430(6)(b), F.A.C.:

- b. Is not subject to a unit-specific applicable requirement.
- c. In combination with other units and activities proposed as insignificant, would not cause the facility to exceed any major source threshold(s) as defined by Rule 62-213.420(3)(c)1., F.A.C. unless acknowledged in a permit application.
- d. Would neither emit nor have the potential to emit:
 - i. 500 pounds per year of lead and lead compounds expressed as lead;
 - ii. 1,000 pounds per year or more of any hazardous air pollutant;
 - iii. 2,500 pounds per year or more of total hazardous air pollutants; or
 - iv. 5.0 tons per year or more of any other regulated pollutant.

ATTACHMENT JEA-FI-CV2

IDENTIFICATION OF APPLICABLE REQUIREMENTS

ATTACHMENT JEA-FI-CV2a
IDENTIFICATION OF APPLICABLE REQUIREMENTS

The FDEP version Title V Core List has been referenced in its entirety.

The facility is subject to the following federal regulations:

Acid Rain, Phase I and II

Clean Air Interstate Rule (CAIR)

40 CFR 60, Subpart A: Standards of Performance for Stationary General Provisions.

40 CFR 60, Subpart Da: Standards of Performance for Fossil-Fuel Fired Steam Generators for which construction commenced after September 18, 1978.

40 CFR 60, Subpart Y: Standards of Performance for Coal Preparation Plants.

40 CFR 60, Subpart OOO: Standards of Performance for Nonmetallic Mineral Processing Plants.

40 CFR 63, Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)

ATTACHMENT JEA-FI-CV2b
IDENTIFICATION OF APPLICABLE REQUIREMENTS
TITLE V CORE LIST

Effective: 06/15/12

(Updated based on current version of FDEP Air Rules)

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

Federal: **(description)**

40 CFR 61, Subpart M: NESHAP for Asbestos.
 40 CFR 82: Protection of Stratospheric Ozone.
 40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).
 40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: **(description)**

CHAPTER 62-4, F.A.C.: PERMITS, effective 12-01-11

62-4.030, F.A.C.: General Prohibition.
 62-4.040, F.A.C.: Exemptions.
 62-4.050, F.A.C.: Procedure to Obtain Permits; Application. 10-31-07
 62-4.055, F.A.C.: Permit Processing. 8-16-98
 62-4.060, F.A.C.: Consultation.
 62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
 62-4.080, F.A.C.: Modification of Permit Conditions.
 62-4.090, F.A.C.: Renewals. 3-16-08
 62-4.100, F.A.C.: Suspension and Revocation.
 62-4.110, F.A.C.: Financial Responsibility.
 62-4.120, F.A.C.: Transfer of Permits.
 62-4.130, F.A.C.: Plant Operation - Problems.
 62-4.150, F.A.C.: Review.
 62-4.160, F.A.C.: Permit Conditions.
 62-4.210, F.A.C.: Construction Permits.
 62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 6-29-11

62-210.300, F.A.C.: Permits Required.
 62-210.300(1), F.A.C.: Air Construction Permits.
 62-210.300(2), F.A.C.: Air Operation Permits.
 62-210.300(3), F.A.C.: Exemptions from Permitting.
 62-210.300(5), F.A.C.: Notification of Startup.
 62-210.300(6), F.A.C.: Emissions Unit Reclassification.
 62-210.300(7), F.A.C.: Transfer of Air Permits.
 62-210.350, F.A.C.: Public Notice and Comment. 10-12-08.
 62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action.
 62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review.

62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections and Amendments. 3-16-08

62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility. 7-3-08

62-210.650, F.A.C.: Circumvention.

62-210.700, F.A.C.: Excess Emissions.

62-210.900, F.A.C.: Forms and Instructions.

62-210.900(1), F.A.C.: Application for Air Permit – Long Form, Form and Instructions. 3-11-10

62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions. 7-3-08

62-210.900(7), F.A.C.: Application for Transfer of Air Permit – Title V and Non-Title V Source. 7-3-08

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES - PRECONSTRUCTION REVIEW, effective 12-04-11

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 6-29-11

62-213.205, F.A.C.: Annual Emissions Fee.

62-213.400, F.A.C.: Permits and Permit Revisions Required.

62-213.410, F.A.C.: Changes Without Permit Revision.

62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.

62-213.415, F.A.C.: Trading of Emissions Within a Source.

62-213.420, F.A.C.: Permit Applications.

62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.

62-213.440, F.A.C.: Permit Content.

62-213.450, F.A.C.: Permit Review by EPA and Affected States

62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.

62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form.

62-213.900(2), F.A.C.: Statement of Compliance Form.

62-213.900(3), F.A.C.: Responsible Official Notification Form.

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-11-10

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

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

CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 02-12-04

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

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

Miscellaneous:

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

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

CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 10-06-08

CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 10-12-08

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

**ATTACHMENT JEA-FI-CV3
COMPLIANCE REPORT AND PLAN**

21 West Church Street
Jacksonville, Florida 32202-3139

February 26, 2013



Ms. Lori Tilley
Environmental Program Supervisor
Air & Water Quality Division
Environmental and Compliance Department
214 North Hogan Street, 7th Floor
Jacksonville, Florida 32202

E L E C T R I C

W A T E R

S E W E R

RE: Northside Generating Station/St. Johns River Power Park
Kennedy Generating Station
Brandy Branch Generating Station
Greenland Energy Center
Buckman Wastewater Treatment Facility
Title V Statements of Compliance for 2012

Dear Ms. Tilley:

Please find attached the Title V Statements of Compliance for the above referenced facilities for calendar year 2012.

Since the detailed quarterly CEMS reports and excess emissions summaries for the Generating Stations were submitted previously with associated allowable startup/shutdown, we are not re-submitting them with the attached Statements of Compliance. However, please find attached additional supporting documentation, such as the NGS/SJRPP identified opacity excursions attached in documentation as well as the following information, as identified in Compliance Statement C:

- NGS Unit 1: SO₂ 24-hour block average
 1. EU ID 026,
 2. Condition G.5.1.
 3. SO₂ 24-hour block average – 0.2 lbs/MMBtu
 4. Compliance method – CEMS,
 5. Period of non-compliance – July 17, 2012 for SO₂ 24-hour block average
 6. CEMS in/out of maintenance mode – communication with Control Room: Corrected by addition of alarm and address communication protocol
 7. Please refer to attached agency correspondence with the Statement of Compliance for NGS/SJRPP

- Buckman Wastewater Treatment Facility Odor Control System 2A – Initial hydrogen sulfide
 1. EU ID 019,
 2. Emission Unit 019-Odor Control System 2A in Test Methods and Procedures
 3. Hydrogen sulfide (H₂S)
 4. EPA Reference Method 16
 5. Test conducted December 4, 2012
 6. Retest on January 8, 2013
 7. Please refer to the test report for the December 2012 initial testing of the odor control system's emission unit ID No. 004 and 019 as electronically submitted 1/16/13. Also, please find attached agency correspondence with the Statement of Compliance for the Buckman Wastewater Treatment Facility

Please do not hesitate to contact me if you have any questions or require any additional information.

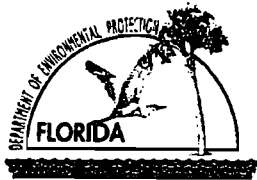
Sincerely,



Jay Worley
Director Environmental Programs

Attachments

xc: U.S. EPA, Region IV, Air and EPCRA Enforcement Branch



Department of Environmental Protection

Division of Air Resource Management

STATEMENT OF COMPLIANCE - TITLE V SOURCE

REASON FOR SUBMISSION (Check one to indicate why this statement of compliance is being submitted)

Annual Requirement Transfer of Permit Permanent Facility Shutdown

REPORTING PERIOD*	REPORT DEADLINE**
January 1 through December 31 of 2012 (year)	March 1, 2013

*The statement of compliance must cover all conditions that were in effect during the indicated reporting period, including any conditions that were added, deleted, or changed through permit revision.

**See Rule 62-213.440(3)(a)2., F.A.C.

Facility Owner/Company Name: JEA

Site Name: NGS / SJRPP Facility ID No. 0310045 County: Duval

COMPLIANCE STATEMENT (Check only one of the following three options)

 A. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, and there were no reportable incidents of deviations from applicable requirements associated with any malfunction or breakdown of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above.

 B. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part; however, there were one or more reportable incidents of deviations from applicable requirements associated with malfunctions or breakdowns of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above, which were reported to the Department. For each incident of deviation, the following information is included:

1. Date of report previously submitted identifying the incident of deviation.
2. Description of the incident.

X C. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, EXCEPT those identified in the pages attached to this report and any reportable incidents of deviations from applicable requirements associated with malfunctions or breakdowns of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above, which were reported to the Department. For each item of noncompliance, the following information is included:

1. Emissions unit identification number.
2. Specific permit condition number (note whether the permit condition has been added, deleted, or changed during certification period).
3. Description of the requirement of the permit condition.
4. Basis for the determination of noncompliance (for monitored parameters, indicate whether monitoring was continuous, i.e., recorded at least every 15 minutes, or intermittent).
5. Beginning and ending dates of periods of noncompliance.
6. Identification of the probable cause of noncompliance and description of corrective action or preventative measures implemented.
7. Dates of any reports previously submitted identifying this incident of noncompliance.

For each incident of deviation, as described in paragraph B. above, the following information is included:

1. Date of report previously submitted identifying the incident of deviation.
2. Description of the incident.

STATEMENT OF COMPLIANCE - TITLE V SOURCE

RESPONSIBLE OFFICIAL CERTIFICATION

I, the undersigned, am a responsible official (Title V air permit application or responsible official notification form on file with the Department) of the Title V source for which this document is being submitted. With respect to all matters other than Acid Rain program requirements, I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.



(Signature of Title V Source Responsible Official)

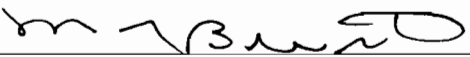
2-26-13
(Date)

Name: Michael J. Brost

Title: VP/General Manager Electric Systems

DESIGNATED REPRESENTATIVE CERTIFICATION (only applicable to Acid Rain source)

I, the undersigned, am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.



(Signature of Acid Rain Source Designated Representative)

2-26-13
(Date)

Name: Michael J. Brost

Title: VP/General Manager Electric Systems

{Note: Attachments, if required, are created by a responsible official or designated representative, as appropriate, and should consist of the information specified and any supporting records. Additional information may also be attached by a responsible official or designated representative when elaboration is required for clarity. This report is to be submitted to both the compliance authority (DEP district or local air program) and the U.S. Environmental Protection Agency (EPA) (U.S. EPA Region 4, Air and EPCRA Enforcement Branch, 61 Forsyth Street, Atlanta GA 30303).}

ATTACHMENT JEA-FI-CV4

LIST OF EQUIPMENT/ACTIVITIES REGULATED UNDER TITLE VI

List of Equipment/Activities Regulated Under Title VI

Northside Generating Station

The equipment contains at least 50 lbs of a listed refrigerant (R-22)

Carrier Model 30HR 070D600	104 lbs
York Model YCAL0061EC46X	110 lbs. total in both circuits refrigeration circuits
Carrier Model 38AKS028-621	120 lbs.; one of two serving Control Room #3 in the Turbine Building
Carrier Model 38AKS024-621	120 lbs.; second of two serving Control Room #3 in the Turbine Building
Carrier Model 38AH054-K621	72 lbs. total for both refrigerant circuits.

This equipment contains at least 50 lbs of a listed refrigerant R-410A:

Aaon Model RN-030-A-EB19-14A 60.5 lbs. total.

Below are the numbers of equipment known to be on site which contain a listed refrigerant (R-22) in quantities substantially less than 50 lbs. The numbers are approximate and are subject to change based on units being replaced, retired or added:

78 central A/C units

5 window units

Other air conditioning and refrigeration items:

10 window units, R-410A

5 domestic-type refrigerators, R-12

15 domestic-type refrigerators, R-134A

3 ice machines, R-404A

In addition, there is one recycling (previously registered with the EPA in accordance with Title VI requirements, and applicable rules and regulations) machine for capturing refrigerant when any work is performed by on-site licensed JEA personnel, with some refrigerant work currently performed by licensed outside contractors. This is subject to change in the future.

Estimated total quantity of refrigerant on site:

R-12: 2 lbs.

R-22: 1402 lbs.

R-134A: 4 lbs.

R-404A: 4 lbs.

R-410A: 359 lbs.

NGS, List of Maximo Refrigerant Assets

Maximo No.	Maximo Description	Brand	Model No.	Ser. No.	Refrigerant , Type and Quantity									
					12 Lbs.	22 Lbs.	134A Lbs.	404A Lbs.	410A Lbs.					
ACU-106051	#2 BARD WALL PACK AT BLD #79	Bard	WA361-A10XX4XX	125M9812-0177-01			R-22	4.25						
ACU-200014	#1 BARD WALL PACK AT BLD #77	Bard	WH481-809	146M930811779-02			R-22	9.00						
ACU-200015	#2 BARD WALL PACK AT BLD #77	Bard	WH481-809	146A940824853-02			R-22	9.00						
ACU-200231	WALL PACK UNIT AT NGS CT CEMS BUILDING	Bard	WA361-A10XX4XX	125M001536712-01			R-22	4.25						
ACU-247868	AIR CONDITIONER UNIT FOR NGS CONFERENCE ROOM	Carrier	50TC-D24ABB6A0A0A0	3411U37011									R-410A	35.30
ACU-250801	A/C PACKAGE UNIT AT NGS TRANSFER BLD#2		W5RV1-T09	361L122952285-02									R-410A	24.00
ACU-250802	A/C PACKAGE UNIT AT NGS TRANSFER BLD#3	Tithe Corp	PAA060V4	G01-0023			R-22	5.00						
ACU-250803	A/C PACKAGE UNIT AT NGS TRANSFER BLD#4	Tithe Corp	PAA060V4	G01-0025			R-22	5.00						
ACU-250804	BARD PACKAGE UNIT AT NGS TRANSFER BLD#6	Bard	WA602-C09	326L122952249-02									R-410A	9.60
ACU-250806	BARD PACKAGE UNIT AT NGS TRANSFER BLD#5	Bard	W60A1-C15	320C112789962-02									R-410A	9.38
ACU-250807	BARD PACKAGE UNIT AT NGS COAL CRUSHING BLD	Bard	WA602-C15	155A082512231-02			R-22	8.75						
ACU-250808	BARD PACKAGE UNIT AT NGS PLANT TRANSFER BLD	Bard	WA602-C15	309D122900919-02			R-22	8.75						
ACU-250809	BARD PACKAGE UNIT AT NGS TRANSFER BLD#1	Bard	W36A1-A10	309D122897474-02									R-410A	5.25
ACU-251098	COND.UNIT FOR NGS MCC AUXILIARY BUILDING	Am. Std	TTA120D400A	S11464MD8YA									R-410A	22.50
ACU-251149	A/C PACKAGE UNIT AT NGS UNIT #1 BATTERY ROOM NORTH	Am. Std	TSC060E4R0A0000	1144111580L									R-410A	9.25
ACU-254131	WALL PACK UNIT AT NGS BY-PRODUCT TRAILER	Bard	W12A1A03	N112858241			R-22	2.56						
ACU-254316	COND UNIT #1FOR NGS ELECTRIC SHOP	Am. Std	4TTA3042D400CA	1219338A3F									R-410A	6.13
ACU-254317	COND UNIT #2 FOR NGS ELECTRIC SHOP	Am. Std	4TTA3042D400CA	121934AX3F									R-410A	6.13
ACU-258467:	COND.UNIT # 2 FOR NGS CONTROL ROOM # 3	Carrier	38AKS028-6	4412Q65214			R-22	120.00						
ACU-258907:	BARD WALL PACK #1 - ASH BUILDING MCC CONTROL ROOM	Bard	WA602-A05	153H082511309-02			R-22	8.75						
ACU-258908:	BARD WALL PACK #2 - ASH BUILDING MCC CONTROL ROOM	Bard	WA602-A05	153H082511310-02			R-22	8.75						
ACU-258909:	BARD WALL PACK #3 - ASH BUILDING MCC CONTROL ROOM	Bard	WA602-A05	153H082511308-02			R-22	8.75						

NGS, List of Maximo Refrigerant Assets

Maximo No.	Maximo Description	Brand	Model No.	Ser. No.	Refrigerant , Type and Quantity									
					12	Lbs.	22	Lbs.	134A	Lbs.	404A	Lbs.	410A	Lbs.
ACU-258910:	PACKAGE UNIT #4 - ASH BUILDING MCC CONTROL ROOM	Tithe Corp	PAA60V4	G01-0021			R-22	5.00						
ACU-28026:	AIR COND UNIT - NGS- SOUTHWEST GLASSHOUSE	Trane	TWA090A400BB	12125LBBYA									R-410A	20.60
ACU-28028:	AIR COND UNIT FOR NGS FIELD OFFICE TRAILER #2	Bard	W372-A10	225D031084899-02			R-22	4.50						
ACU-28029:	AIR COND UNIT FOR NGS FIELD OFFICE TRAILER #3	Bard	WH361-A10	K031840661			R-22	4.50						
ACU-28040:	AIR COND UNIT FOR NGS SOUTHEAST GLASSHOUSE	Trane	TWA090A400BB	L394JYUAH			R-22	18.00						
ACU-28041:	AIR COND UNIT FOR NGS NORTHWEST GLASSHOUSE	Trane	TWA090A400BB	L394X04AH			R-22	18.00						
ACU-28042:	AIR COND UNIT FOR NGS NORTHEAST GLASSHOUSE	Trane	TWA090A400BB	L401LWNAH			R-22	18.00						
ACU-28043:	AIR COND UNIT SPLIT SYSTEM FOR NGS GUARDS OFFICE	Am. Std	TWR018C100A2	N395TL7CF			R-22	5.44						
ACU-41363:	AIR COND UNIT #4 FOR NGS MAINTENANCE MANAGERS OFFICE WEST	Am. Std	2WCC3030H10	6414RHJ9H			R-22	6.20						
ACU-41365:	AIR CONDITIONER UNIT FOR NGS MAINTENANCE PLANNING EAST	Trane	WCD180B400EA	N4210223D			R-22	29.80						
ACU-41366:	AIR CONDITIONER UNIT FOR NGS MAINTENANCE PLANNING WEST	Am. Std	WSC060H4R0A27	637100961L			R-22	8.50						
ACU-41367:	AIR CONDITIONER UNIT FOR NGS FUEL LAB ENGINEERING SERVICE OFFICE	Aaon	RM-20-3-0-AB12-164T	AMEP00560			R-22	44.00						
ACU-41368:	AIR CONDITIONER UNIT FOR NGS FUEL LAB	Aaon	RN-030-3-A-EB19-14A	201004-ANET03019									R-410A	60.50
ACU-41369:	AIR COND UNIT #1 FOR NGS MAINTENANCE MANAGERS OFFICE NORTH	Carrier	50HQ006-621	3608G40514			R-22	18.30						
ACU-41370:	AIR COND UNIT #2 FOR NGS MAINTENANCE MANAGERS OFFICE SOUTH	Carrier	50HJQ008-621	3808G30721			R-22	19.00						
ACU-41371:	AIR COND UNIT #3 FOR NGS MAINTENANCE MANAGERS OFFICE EAST	Am. Std	2WCC3030H10	6365M549H			R-22	6.20						
ACU-41383:	AIR CONDITIONER UNIT COND-#2 FOR NGS STOREROOM OFFICES	Trane	TWA036D00A0	R222LGE4F			R-22	5.80						
ACU-41384:	AIR CONDITIONER UNIT COND-#2A FOR NGS STOREROOM BACK STORAGE	Carrier	38AQS008-521	1101G00066			R-22	37.00						
ACU-41385:	AIR CONDITIONER UNIT FOR NGS GYM	Trane	TTA120A400FA	4205MNA0D			R-22	19.00						
ACU-41499:	AIR CONDITIONER UNIT COND-#1A FOR NGS STOREROOM BACK STORAGE	Carrier	38AQS008-521	4901f26371			R-22	37.00						
ACU-41500:	AIR CONDITIONER UNIT COND-#1 FOR NGS STOREROOM OFFICES	Am. Std	2A6C0036A300AB	6115X5S3F			R-22	5.25						
ACU-42885:	WALL PACK UNIT #1 AT NGS 10 WIDE TRAILER	Bard	W36A1-A05	309A102678228-02									R-410A	5.50

NGS, List of Maximo Refrigerant Assets

Maximo No.	Maximo Description	Brand	Model No.	Ser. No.	Refrigerant , Type and Quantity								
					12 Lbs.	22 Lbs.	134A Lbs.	404A Lbs.	410A Lbs.				
ACU-42886:	WALL PACK UNIT #2 AT NGS 10 WIDE TRAILER	Bard	W36A1-A05	309A102678224-02								R-410A	5.50
ACU-42887:	WALL PACK UNIT #3 AT NGS 10 WIDE TRAILER	Bard	W36A1-A05	309A102678233-02								R-410A	5.50
ACU-42888:	WALL PACK UNIT #4 AT NGS 10 WIDE TRAILER	Bard	W36A1-A05	309A1026782258-02								R-410A	5.50
ACU-42889:	WALL PACK UNIT #5 AT NGS 10 WIDE TRAILER	Bard	W36A1-A05	309A102677862-02								R-410A	5.50
ACU-42890:	WALL PACK UNIT #6 AT NGS 10 WIDE TRAILER	Bard	W36A1-A10XXXXXX	125N981300625-02			R-22	4.30					
ACU-42891:	WALL PACK UNIT #7 AT NGS 10 WIDE TRAILER	Bard	W36A1-A10XXXXXX	125A991309732-02			R-22	4.30					
ACU-42892:	WALL PACK UNIT #8 AT NGS 10 WIDE TRAILER	Bard	W36A1-A10XXXXXX	125H981246340-02			R-22	4.30					
ACU-42893:	WALL PACK UNIT #9 AT NGS 10 WIDE TRAILER	Bard										R-410A	5.50
ACU-42894:	WALL PACK UNIT #10 AT NGS 10 WIDE TRAILER	Bard	W36A1-A10XXXXXX	125F981239264-02			R-22	4.30					
ACU-45010:	AIR COND. UNIT AT NGS FUEL LAB COAL CRUSHING ROOM	Amana	MR09Y1E	LKDJ00033			R-22	1.90					
ACU-47197:	AIR COND. UNIT FOR NGS AIR QUALITY CONTROL SERVICE	Am. Std.	A2A6C0060A400A	72010CW1F			R-22	8.70					
ACU-47254:	A/C PACKAGE UNIT AT NGS ELEVATOR-MACHINE ROOM #3	Trane	TCC018-F100BA	K386RY62H									
ACU-47256:	A/C PACKAGE UNIT AT NGS I & C ROOM WEST	Am. Std	TSC048A4R0A1G	517102345L			R-22	3.80					
ACU-47257:	A/C PACKAGE UNIT AT NGS I & C BREAKROOM	Am. Std	4WCX3024A1000AA	9123MH99H								R-410A	6.50
ACU-47258:	A/C PACKAGE UNIT AT NGS I & C ROOM EAST	Carrier	50GS048-611	1706G31192			R-22	6.00					
ACU-47259:	WALL PACK UNIT AT NGS MATERIAL HANDLING TRAILER #1	Bard	WA361-A10	125F011622923-01			R-22	4.25					
ACU-47260:	WALL PACK UNIT AT NGS MATERIAL HANDLING TRAILER #2	Bard	WA361-A10	125F011622941-01			R-22	4.25					
ACU-47261:	WALL PACK UNIT AT NGS MATERIAL HANDLING TRAILER #3	Bard	WA361-A10	125F011622980-01			R-22	4.25					
ACU-47262:	WALL PACK UNIT AT NGS MATERIAL HANDLING TRAILER #4	Bard	WA361-A10	125F011622982-01			R-22	4.25					
ACU-47263:	WALL PACK UNIT AT NGS MATERIAL HANDLING TRAILER #5	Bard	WA361-A10	125F011622942-01			R-22	4.25					
ACU-47264:	WALL PACK UNIT AT NGS FUEL DOCK MATERIAL HANDLING TRAILER #1	Bard					R-22	4.25					
ACU-47266:	HANDLING TRAILER #2, REPLACEMENT FROM TRAILER 3	Bard					R-22	4.25					

NGS, List of Maximo Refrigerant Assets

Maximo No.	Maximo Description	Brand	Model No.	Ser. No.	Refrigerant , Type and Quantity									
					12 Lbs.	22 Lbs.	134A Lbs.	404A Lbs.	410A Lbs.					
ACU-47267:	WALL PACK UNIT AT NGS MATERIAL HANDLING MAINT SHOP SOUTHEAST	Bard	WA602-B15	154K092647595-02			R-22	8.75						
ACU-47268:	WALL PACK UNIT AT NGS MATERIAL HANDLING MAINT SHOP SOUTHWEST	Bard	W61H1-B09	325H102708316-02									R-410A	9.69
ACU-47269:	WALL PACK UNIT AT NGS MATERIAL HANDLING MAINT SHOP NORTH/WEST	Bard	W61H1-B09	325H102708315-02									R-410A	9.69
ACU-47270:	WALL PACK UNIT AT NGS MATERIAL HANDLING MAINT SHOP NORTHEAST	Bard	WA602-B00	154K092647595-02									R-410A	6.88
ACU-47272:	WINDOW UNIT AT NGS CWTS BUILDING	ComfortAire	RED-81C				R-22	0.78						
ACU-47273:	WINDOW UNIT AT NGS FUEL DOCK BUILDING	ComfortAire	RED-81C				R-22	0.78						
ACU-47274:	WINDOW UNIT AT NGS GUARD SHACK BACK GATE	Amana	PTH153B50AM	705135842			R-22	1.50						
ACU-47275:	WINDOW UNIT AT NGS FUEL DOCK GUARD SHACK	ComfortAire	RED-81C				R-22	0.78						
ACU-47438:	COND.UNIT FOR NGS ELEVATOR MACHINE ROOM # 1	Am. Std	2A7A3024A1000AA	7282W1C5F			R-22	5.13						
ACU-47441:	COND.UNIT # 1 FOR NGS CONTROL ROOM # 3	Carrier	38AKS024-621	0804F17730			R-22	120.00						
ACU-48538:	A/C PACKAGE UNIT AT NGS UNIT #3 BATTERY ROOM NORTH	Trane	TSC060A4R0A1N	520101612L									R-410A	9.25
ACU-48539:	A/C PACKAGE UNIT AT NGS UNIT #3 BATTERY ROOM SOUTH	Carrier	50TFF006-A611	1702G40294			R-22	7.88						
ACU-48569:	COND.UNIT #2 FOR NGS BATTERY ROOM #11	Carrier	38AKS016-E610	5200F53172			R-22	10.40						
ACU-48572:	COND.UNIT #2 FOR NGS BATTERY ROOM #12	Carrier	38AKS016-E610	5200F53175			R-22	10.40						
ACU-48574:	COND.UNIT FOR NGS MCC BOILER ISLAND BUILDING	Carrier	38AH054-K621	3406Q07669			R-22	72.00						
ACU-48576:	COND.UNIT FOR NGS MCC UNIT #1 BUILDING	York	H1CE150A46C	NEKM047395			R-22	10.50						
ACU-49111:	AIR CONDITIONER UNIT FOR NGS MATERIAL HANDLING CONTROL ROOM	Carrier	38AKS028-E600	2201F87741			R-22	30.50						
ACU-49222:	A/C PACKAGE UNIT AT NGS MUCH BUILDING	Carrier	50TTF012-D601	4600G30328			R-22	15.00						
ACU-49225:	COND UNIT AT NGS MCC BUILDING #2	York	H1CE150A46C	NEKM047393			R-22	10.50						
ACU-50066:	A/C PACKAGE UNIT AT NGS UNIT #1 BATTERY ROOM SOUTH	Am. Std	TSC048A4R0A1B	421101870L			R-22	3.80						
ACU-50270:	WINDOW UNIT AT NGS DEMINERALIZER BUILDING		RED-123B				R-22	1.36						
ACU-50273:	WINDOW UNIT AT NGS WELDING SHOP COMPUTER ROOM		RED-81C				R-22	0.78						

NGS, List of Maximo Refrigerant Assets

Maximo No.	Maximo Description	Brand	Model No.	Ser. No.	Refrigerant , Type and Quantity									
					12	Lbs.	22	Lbs.	134A	Lbs.	404A	Lbs.	410A	Lbs.
ACU-50687:	WALL PACK UNIT AT NGS E & C MATERIAL TRAILER	Bard					R-22	4.25						
ACU-52439:	AIR CONDITIONER UNIT FOR OPERATIONS MEETING ROOM	Am. Std	7B0023B100A1	4264KD65F			R-22	3.25						
ACU-58861:	WALL PACK UNIT AT NGS. AQCS MAINTENANCE SHOP NORTH/WEST	Bard	30WA6-A1010	099F880531949			R-22	4.00						
ACU-58862:	WALL PACK UNIT AT NGS. AQCS MAINTENANCE SHOP NORTH/EAST	Sun	AVC30110N	K893807C			R-22	5.13						
ACU-58863:	WALL PACK UNIT AT NGS. AQCS MAINTENANCE SHOP SOUTH/EAST	Sun	AVC30110N	K893811C			R-22	5.13						
ACU-58864:	WALL PACK UNIT AT NGS. AQCS MAINTENANCE SHOP SOUTH/WEST	Sun	AVC30110N	K893572C			R-22	5.13						
ACU-85331:	AIR COND UNIT FOR NGS 2 WIDE TRAILER MATERIAL HANDLING OFFICES #1	Bard	W36A1-A10	309D102693317-02			R-22	5.25						
ACU-85332:	AIR COND UNIT FOR NGS 2 WIDE TRAILER MATERIAL HANDLING OFFICES #2	Bard	W36A1-A10	309A102674955-02			R-22	5.25						
ACU-85333:	AIR COND UNIT FOR NGS SINGLEWIDE TRAILER, MATERIAL HANDLING	Bard	W12A1A03				R-22	3.00						
ACU-85434:	AIR CONDITIONER UNIT COND-#1B FOR NGS STOREROOM BACK STORAGE	Carrier	38AKS024-521	3708G20087			R-22	28.00						
ACU-85435:	AIR CONDITIONER UNIT COND-#1C FOR NGS STOREROOM BACK STORAGE	Carrier	38AKS024-521	3508G40080			R-22	28.00						
ACU-98925:	CONDENSER UNIT #1 FOR NGS BLACK START BUILDING	Mitsubishi	MUZ-A24NA	8002438									R-410A	4.00
ACU-98926:	CONDENSER UNIT #2 FOR NGS BLACK START BUILDING	Mitsubishi	MUZ-A24NA	7005272									R-410A	4.00
ACU-NGS2:	AIR CONDITIONER UNIT FOR NGS FIELD OFFICE TRAILER #1	Bard	WH361-A10	K031840660			R-22	5.25						
CHILL-247643:	CHILLER NGS MACHINE SHOP, CHILL-247641	Carrier	30RAP0Y06KA08F14	3611043309									R-410A	29.90
CHILL-47442:	NGS CONTROL ROOM # 1 CHILLER #2 YORK	York	YCAOO61EC46XDAS	RDRM014340			R-22	110.00						
CHILL-47443:	NGS CONTROL ROOM # 1 CHILLER # 1 CARRIER	Carrier	30RBB07065-5C797	1410Q74059									R-410A	29.00
CHILL-47444:	NGS CONTROL ROOM # 1 BACK-UP CHILLER #3	Carrier	30HR070D600	30HR070D600			R-22	104.00						
ICE-253333:	ICE MACHINE AT NGS BUILDING #79	HOSHIZAKI	KM-515 MAH	B16693G								R-404A	1.70	
ICE-43771:	HOSHIZAKI ICE MACHINE AT NGS MATERIALS HANDLING TRAILER	HOSHIZAKI	KM-500 MAH	M26428L								R-404A	1.63	
ICE-47271:	MANITOWOC ICE MACHINE AT NGS CONTROL ROOM #1	MANITOWOC	QD0272A	41061407								R-404A	1.10	
ACU-106050:	#1 BARD WALL PACK AT BLD #79	Bard	WA361-A10XX4XX	125K98127710-01			R-22	4.25						

NGS, List of Maximo Refrigerant Assets

Maximo No.	Maximo Description	Brand	Model No.	Ser. No.	Refrigerant , Type and Quantity							
					12 Lbs.	22 Lbs.	134A Lbs.	404A Lbs.	410A Lbs.			

Other items otherwise unaccounted

11-Room AC's, R-134A, average 0.75 lbs														R-410	8.25
15-Refrigerators, R-134A, average 0.28 lbs									R-134A	4.20					
5-Refrigerators, R-12, average 0.41 lbs									R-12	2.05					
Buss Duct Room, Turbine Bldg,	Carrier	38AKS024-621							R-22	28.00					
Buss Duct Room, Turbine Bldg,	Carrier	38AKS024-621							R-22	28.00					
Buss Duct Room, Turbine Bldg,	Carrier	38AKS024-621							R-22	28.00					
Buss Duct Room, Turbine Bldg,	Carrier	38AKS024-621							R-22	28.00					
Buss Duct Room, Turbine Bldg,	Trane	TTA240							R-22	40.00					
Buss Duct Room, Turbine Bldg,	Trane	TTA240							R-22	40.00					

R-12	2.05	R-22	1402.38	R-134A	4.20	R-404A	4.43	R-410	358.80
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ATTACHMENT JEA-FI-CV5

VERIFICATION OF RISK MANAGEMENT PLAN SUBMISSION TO EPA

1002 Main Street North
Jacksonville, Florida 32202-5507

December 14, 2012



RMP Reporting Center
P.O. Box 10162
Arlington, VA 22038

RE: EPA Facility ID Number 1000 0013 3839

E L E C T R I C

Attention: Risk Management Plans

W A T E R

S E W E R

In accordance with 40 CFR Part 68, the attached form is to de-register JEA Northside Generating Station, located at 4377 Heckscher Drive, Jacksonville, FL, 32226. The facility no longer uses aqueous ammonia at a concentration of greater than 20%. JEA now purchases aqueous ammonia at a concentration of 19.4 %. Recent sample results indicate that the contents of the tank are less than 20%:

<u>Sample Date</u>	<u>Result</u>
5/21/12	19.3%
5/22/12	19.4%
10/30/12	19.3%

For this reason, the facility should be de-registered as of November 21, 2012. If you have any questions about this matter, please contact Steve Moser at mosesl@jea.com or at (904) 665-6223.

Sincerely,

A handwritten signature in cursive script that reads 'Randy Stroupe'.

Randy Stroupe
Director, Electric Production

XC: Steve Moser, JEA Springfield Lab

**RISK MANAGEMENT PROGRAM
De-registration Form**

Today's Date: December 14, 2012

EPA Facility Identifier: 1000 0013 3839

Effective Date of De-registration: Nov. 21, 2012

Facility Name: JEA Northside Generating Station

Facility Address: 4377 Heckscher Dr.

City: Jacksonville State: FL Zip Code: 32226

Select (Check) Reason for De-registration:

- Source reduced inventory of all regulated substances below TQs
- Source no longer uses any regulated substance
- Source terminated operations
- Other: Concentration of aqueous ammonia
below 20%

I, Randy Stroupe, certify the above stationary source as of the above
(Name of Facility Owner or Operator)

effective date is no longer covered by the Accidental Release Prevention Regulations, 40 CFR Part 68.

Randy Stroupe
Signature of Owner or Operator

12-19-2012
Date

Director Electric Production
Official Title

ATTACHMENT JEA-FI-CV6

REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATION PERMIT

ATTACHMENT JEA-FI-CV6
REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATION PERMIT

40 CFR 63 Subpart ZZZZ Applicability

On behalf of the Jacksonville Electric Authority (JEA), Golder Associates Inc. (Golder) has prepared an inventory of stationary Reciprocating Internal Combustion Engines (RICE) at the Northside Generating Station (NGS) and St. Johns River Power Park (SJRPP). The purpose of the inventory was to analyze applicability of Title 40, Part 63 of the Code of Federal Regulations (40 CFR 63), Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for stationary RICE to these engines. Following are the eight stationary RICE at the NGS and SJRPP:

- NGS Unit 1 Emergency Generator
- NGS Unit 3 Emergency Generator
- NGS Black Start 1 Engine
- NGS Black Start 2 Engine
- NGS Main Fire Pump
- NGS Booster Fire Pump
- SJRPP Emergency Generator
- SJRPP Fire Pump

The detailed RICE applicability analysis has been attached in the following tables. A summary of the engine manufacturer, model, serial number, power rating, number of cylinders, cylinder displacement, and installation date for these engines is presented in Table 1. Tables 2 through 9 present the RICE NESHAP applicability analysis for these engines. As shown, Engines 1 through 8 are subject to the RICE NESHAP.

The SJRPP emergency generator (Engine 7) is a new stationary RICE with a site rating of greater than 500 horsepower (hp) located at a major source of HAPs, and therefore, based on Rule §63.6590(b)(i), does not have to meet the requirements of 40 CFR 63 Subpart ZZZZ except for the initial notification requirements of §63.6645(f).

The SJRPP fire pump (Engine 8) is a new stationary RICE with a site rating of less than or equal to 500 hp, is located at a major source of HAPs, and is subject to 40 CFR 60 Subpart IIII, New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines, and therefore, based on Rule §63.6590(c), is not subject to any requirements under 40 CFR 63 Subpart ZZZZ.

JEA requests that the Subpart ZZZZ applicability requirements for these engines be included in the renewed Title V permit.

Unregulated Emissions Units/Activities

The facility currently has unregulated emissions units listed in Appendix U of Permit No. 0310045-038-AV. Several unregulated units have been removed from the facility. A revised list of unregulated emissions units/activities is presented below. JEA is also requesting that several tanks, which were previously listed in Appendix U be moved to Appendix I, List of Insignificant Emissions Units and/or Activities. There are no applicable requirements for these tanks and the potential emission of VOC, the only regulated air pollutant emitted from each tank is less than 5 TPY. The potential VOC emissions were calculated using EPA's TANKS4 program and the output are attached. The various tanks are identified below:

The following tanks are to remain in the revised Appendix U:

EU ID	Location		Brief Description		
	010	Storage Tank	NGS	4,578,000	gallons
010	Storage Tank	NGS	4,578,000	gallons	Bunker C
010	Storage Tank	NGS	4,578,000	gallons	Bunker C
010	Storage Tank	NGS	11,256,000	gallons	Bunker C
010	Storage Tank	NGS	11,256,000	gallons	Bunker C
010	Storage Tank	NGS	11,256,000	gallons	Bunker C
010	Storage Tank	NGS	4,578,000	gallons	Bunker C

The following tanks are to be listed in Appendix I:

EU ID	Location		Brief Description		
	011	Storage Tank #11	NGS	4,200,000	gallons
011	Storage Tank #12	NGS	4,200,000	gallons	diesel
019	Storage Tank *	SJRPP	636,106	gallons	diesel
020	Storage Tank	SJRPP	10,069	gallons	gasoline
021	Storage Tank: Emergency Fire Pump	SJRPP	460	gallons	diesel
021	Storage Tank: Coal/Limestone Fuel Storage	SJRPP	10,069	gallons	diesel
021	Storage Tank: Ash/Land Fuel Storage	SJRPP	10,069	gallons	diesel
021	Storage Tank: Power Block Emergency Generator Fuel Storage	SJRPP	4,015	gallons	diesel

* Tank out of service and will be removed prior to next Title V renewal in 2018.

The following tanks have been removed from the site and are to be deleted from Appendix U:

EU ID	Brief Description			
	010	Storage Tank No. 10	168,000	gallons
015	Waste oil storage tanks			
015	Storage tank	750	gallons	
015	Storage tank	1,000	gallons	
015	Storage tank	575	gallons	
021	Storage tank: AQCS Emergency Generator Day Tank			
021	Storage tank	3,000	gallons	diesel
012	Storage Tank #13 **	4,200,000	gallons	diesel
012	Storage Tank #14 **	4,200,000	gallons	diesel

** Tanks were never commissioned. Structure in place and used as parking garage and storage.

**TABLE 1
LIST OF RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE)
JEA/SJRPP**

	Engine 1 NGS Unit 1 Emergency Generator	Engine 2 NGS Unit 3 Emergency Generator	Engine 3 NGS Black-Start 1	Engine 4 NGS Black-Start 2	Engine 5 NGS Main Fired Pump	Engine 6 NGS Booster Fire Pump	Engine 7 SJRPP Emergency Generator	Engine 8 SJRPP Fire Pump
Engine Description	--	--	--	--	--	--	--	--
Fuel Used	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
CI or SI	CI	CI	CI	CI	CI	CI	CI	CI
Located in an Area Source or Major Source of HAPS	Major Source	Major Source	Major Source	Major Source	Major Source	Major Source	Major Source	Major Source
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Emergency	Emergency	Black-Start	Black-Start	Emergency	Emergency	Emergency	Emergency
Engine Serial Number	44915727	85704313	25Z01538	25Z01536	6TB17292	--	--	--
Engine Manufacturer	Cummins	CAT	CAT	CAT	CAT	CAT	CAT	Cummins
Engine Model	6CT8.3-G	3306b DI	3516	3516	3406C (2300 rpm)	3406C (2300 rpm)	3512C	CFP9E-F50
Engine Power (bhp)	207	268	2,307	2,307	482	482	2,206	350
No. of Cylinders	6	6	16	16	12	12	12	6
Total Cylinder Displacement (l)	8	10.5	69	69	14.6	15	52	8.9
Engine Construction Date	1993	1987	Before June 12, 2006	Before June 12, 2006	Before June 12, 2006	Before June 12, 2006	April 2012	October 2011
Engine Installation Date	2006	1988	1998	1998	1997	November 2001	April 2013	November 2011
Existing, New, or Reconstructed	Existing	Existing	Existing	Existing	Existing	Existing	New	New

**TABLE 2
APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART ZZZZ
NGS Unit 1 Emergency Generator**

	Engine Data/Subpart ZZZZ Requirements	Rule Citation
Engine Description	--	--
Fuel Used	Diesel	--
CI or SI	CI	--
Located in an Area Source or Major Source of HAPS	Major Source	--
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Emergency	--
Engine Serial Number	44915727	--
Engine Manufacturer	Cummins	--
Engine Model	6CT8.3-G	--
Engine Power (bhp)	207	--
No. of Cylinders	6	--
Cylinder Displacement (l)	8.3	--
Engine Construction Date	1993	--
Engine Installation Date	2006	--
Existing, New, or Reconstructed	Existing	--
Compliance Date	May 3rd, 2013	Rule § 63.6595(a)(1)
Emissions Limitations	(a) Change oil and filter every 1,000 hrs of operation or annually, whichever first (b) Inspect air cleaner every 1,000 hrs of operation or annually, whichever first (c) Inspect and replace (if necessary) hoses and belts every 500 hrs of operation or annually, whichever first	Rule § 63.6602, Table 2c (1)
Operating Limitations	None	Rule § 63.6603
Fuel Requirements	None	Rule § 63.6604
Initial Performance Tests	None	Rule § 63.6612(a)
Monitoring, installation, collection, operation, and maintenance requirements	Operate and maintain according to manufacturer's instructions or develop and follow GCP Install a non-resettable hour meter Minimize idle time to <30 min	Rule § 63.6625(e)(2) Rule § 63.6625(f) Rule § 63.6625(h)
Initial Compliance	None	Rule § 63.6630
Continuous Compliance	Non-emergency use including maintenance checks and readiness testing limited to 100 hr/yr. Non-emergency use limited to 50 hr/yr. No limit during emergencies Demonstrate compliance with work or management practices in Table 6(9)	Rule § 63.6640(f), Table 6(9)
Notification Requirements	Applicable notifications must be submitted	Rule § 63.6645
Reporting Requirements	None	Rule § 63.6650
Recordkeeping Requirements	Copies of each notification and report to comply with the subpart Records to demonstrate compliance with work or management practices listed in Table 6(9) Records of maintenance conducted Records of operating hours	Rule § 63.6655(d) Rule § 63.6655(e)(2) Rule § 63.6655(f)

**TABLE 3
APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART ZZZZ
NGS Unit 3 Emergency Generator**

	Engine Data/Subpart ZZZZ Requirements	Rule Citation
Engine Description	--	--
Fuel Used	Diesel	--
CI or SI	CI	--
Located in an Area Source or Major Source of HAPS	Major Source	--
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Emergency	--
Engine Serial Number	85704313	--
Engine Manufacturer	CAT	--
Engine Model	3306b DI	--
Engine Power (bhp)	268	--
No. of Cylinders	6	--
Cylinder Displacement (l)	10.5	--
Engine Construction Date	1987	--
Engine Installation Date	1988	--
Existing, New, or Reconstructed	Existing	--
Compliance Date	May 3rd, 2013	Rule § 63.6595(a)(1)
Emissions Limitations	(a) Change oil and filter every 1,000 hrs of operation or annually, whichever first (b) Inspect air cleaner every 1,000 hrs of operation or annually, whichever first (c) Inspect and replace (if necessary) hoses and belts every 500 hrs of operation or annually, whichever first	Rule § 63.6602, Table 2c (1)
Operating Limitations	None	Rule § 63.6603
Fuel Requirements	None	Rule § 63.6604
Initial Performance Tests	None	Rule § 63.6612(a)
Monitoring, installation, collection, operation, and maintenance requirements	Operate and maintain according to manufacturer's instructions or develop and follow GCP Install a non-resettable hour meter Minimize idle time to <30 min	Rule § 63.6625(e)(2) Rule § 63.6625(f) Rule § 63.6625(h)
Initial Compliance	None	Rule § 63.6630
Continuous Compliance	Non-emergency use including maintenance checks and readiness testing limited to 100 hr/yr. Non-emergency use limited to 50 hr/yr. No limit during emergencies Demonstrate compliance with work or management practices in Table 6(9)	Rule § 63.6640(f), Table 6(9)
Notification Requirements	Applicable notifications must be submitted	Rule § 63.6645
Reporting Requirements	None	Rule § 63.6650
Recordkeeping Requirements	Copies of each notification and report to comply with the subpart Records to demonstrate compliance with work or management practices listed in Table 6(9) Records of maintenance conducted Records of operating hours	Rule § 63.6655(d) Rule § 63.6655(e)(2) Rule § 63.6655(f)

TABLE 4
 APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART ZZZZ
 NGS Black-Start 1

Engine Description	Engine Data/Subpart ZZZZ Requirements	Rule Citation
Fuel Used	Diesel	--
CI or SI	CI	--
Located in an Area Source or Major Source of HAPS	Major Source	--
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Black-Start	--
Engine Serial Number	25Z01538	--
Engine Manufacturer	CAT	--
Engine Model	3516	--
Engine Power (bhp)	2307	--
No. of Cylinders	16	--
Cylinder Displacement (l)	69	--
Engine Construction Date	Before June 12, 2006	--
Engine Installation Date	1998	--
Existing, New, or Reconstructed	Existing	--
Compliance Date	May 3rd, 2013	Rule § 63.6595(a)(1)
Emissions Limitations	(a) Change oil and filter every 500 hrs of operation or annually, whichever first (b) Inspect air cleaner every 500 hrs of operation or annually, whichever first (c) Inspect and replace (if necessary) hoses and belts every 500 hrs of operation or annually, whichever first	Rule § 63.6602, Table 2c (1)
Operating Limitations	None	Rule § 63.6603
Fuel Requirements	None	Rule § 63.6604
Initial Performance Tests	None	Rule § 63.6612
Monitoring, installation, collection, operation, and maintenance requirements	Minimize idle time to <30 min	Rule § 63.6625(h)
Initial Compliance	None	Rule § 63.6630
Continuous Compliance	Must report each instance in which operating limitation from Table 2c were not met	Rule § 63.6640
Notification Requirements	Applicable notifications must be submitted	Rule § 63.6645
Reporting Requirements	None	Rule § 63.6650
Recordkeeping Requirements	Copies of each notification and report to comply with the subpart Records of occurrence and duration of each malfunction of operation	Rule § 63.6655

TABLE 5
 APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART ZZZZ
 NGS Black-Start 2

	Engine Data/Subpart ZZZZ Requirements	Rule Citation
Engine Description	--	--
Fuel Used	Diesel	--
CI or SI	CI	--
Located in an Area Source or Major Source of HAPS	Major Source	--
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Black-Start	--
Engine Serial Number	25Z01536	--
Engine Manufacturer	CAT	--
Engine Model	3516	--
Engine Power (bhp)	2307	--
No. of Cylinders	16	--
Cylinder Displacement (l)	69	--
Engine Construction Date	Before June 12, 2006	--
Engine Installation Date	1998	--
Existing, New, or Reconstructed	Existing	--
Compliance Date	May 3rd, 2013	Rule § 63.6595(a)(1)
Emissions Limitations	(a) Change oil and filter every 500 hrs of operation or annually, whichever first (b) Inspect air cleaner every 500 hrs of operation or annually, whichever first (c) Inspect and replace (if necessary) hoses and belts every 500 hrs of operation or annually, whichever first	Rule § 63.6602, Table 2c (1)
Operating Limitations	None	Rule § 63.6603
Fuel Requirements	None	Rule § 63.6604
Initial Performance Tests	None	Rule § 63.6612
Monitoring, installation, collection, operation, and maintenance requirements	Minimize idle time to <30 min	Rule § 63.6625(h)
Initial Compliance	None	Rule § 63.6630
Continuous Compliance	Must report each instance in which operating limitation from Table 2c were not met	Rule § 63.6640
Notification Requirements	Applicable notifications must be submitted	Rule § 63.6645
Reporting Requirements	None	Rule § 63.6650
Recordkeeping Requirements	Copies of each notification and report to comply with the subpart Records of occurrence and duration of each malfunction of operation	Rule § 63.6655

TABLE 6
 APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART ZZZZ
 NGS Main Fired Pump

	Engine Data/Subpart ZZZZ Requirements	Rule Citation
Engine Description	--	--
Fuel Used	Diesel	--
CI or SI	CI	--
Located in an Area Source or Major Source of HAPS	Major Source	--
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Emergency	--
Engine Serial Number	6TB17292	--
Engine Manufacturer	CAT	--
Engine Model	3406C (2300 rpm)	--
Engine Power (bhp)	482	--
No. of Cylinders	12	--
Cylinder Displacement (l)	14.6	--
Engine Construction Date	Before June 12, 2006	--
Engine Installation Date	1997	--
Existing, New, or Reconstructed	Existing	--
Compliance Date	May 3rd, 2013	Rule § 63.6595(a)(1)
Emissions Limitations	(a) Change oil and filter every 1,000 hrs of operation or annually, whichever first (b) Inspect air cleaner every 1,000 hrs of operation or annually, whichever first (c) Inspect and replace (if necessary) hoses and belts every 500 hrs of operation or annually, whichever first	Rule § 63.6602, Table 2c (1)
Operating Limitations	None	Rule § 63.6603
Fuel Requirements	None	Rule § 63.6604
Initial Performance Tests	None	Rule § 63.6612(a)
Monitoring, installation, collection, operation, and maintenance requirements	Operate and maintain according to manufacturer's instructions or develop and follow GCP Install a non-resettable hour meter Minimize idle time to <30 min	Rule § 63.6625(e)(2) Rule § 63.6625(f) Rule § 63.6625(h)
Initial Compliance	None	Rule § 63.6630
Continuous Compliance	Non-emergency use including maintenance checks and readiness testing limited to 100 hr/yr. Non-emergency use limited to 50 hr/yr. No limit during emergencies Demonstrate compliance with work or management practices in Table 6(9)	Rule § 63.6640(f), Table 6(9)
Notification Requirements	Applicable notifications must be submitted	Rule § 63.6645
Reporting Requirements	None	Rule § 63.6650
Recordkeeping Requirements	Copies of each notification and report to comply with the subpart Records to demonstrate compliance with work or management practices listed in Table 6(9) Records of maintenance conducted Records of operating hours	Rule § 63.6655(d) Rule § 63.6655(e)(2) Rule § 63.6655(f)

TABLE 7
 APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART ZZZZ
 NGS Booster Fire Pump

Engine Description	Engine Data/Subpart ZZZZ Requirements	Rule Citation
Fuel Used	Diesel	--
CI or SI	CI	--
Located in an Area Source or Major Source of HAPS	Major Source	--
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Emergency	--
Engine Serial Number	--	--
Engine Manufacturer	CAT	--
Engine Model	3406C (2300 rpm)	--
Engine Power (bhp)	482	--
No. of Cylinders	12	--
Cylinder Displacement (l)	14.6	--
Engine Construction Date	Before June 12, 2006	--
Engine Installation Date	November 2001	--
Existing, New, or Reconstructed	Existing	--
Compliance Date	May 3rd, 2013	Rule § 63.6595(a)(1)
Emissions Limitations	(a) Change oil and filter every 1,000 hrs of operation or annually, whichever first (b) Inspect air cleaner every 1,000 hrs of operation or annually, whichever first (c) Inspect and replace (if necessary) hoses and belts every 500 hrs of operation or annually, whichever first	Rule § 63.6602, Table 2c (1)
Operating Limitations	None	Rule § 63.6603
Fuel Requirements	None	Rule § 63.6604
Initial Performance Tests	None	Rule § 63.6612(a)
Monitoring, installation, collection, operation, and maintenance requirements	Operate and maintain according to manufacturer's instructions or develop and follow GCP Install a non-resettable hour meter Minimize idle time to <30 min	Rule § 63.6625(e)(2) Rule § 63.6625(f) Rule § 63.6625(h)
Initial Compliance	None	Rule § 63.6630
Continuous Compliance	Non-emergency use including maintenance checks and readiness testing limited to 100 hr/yr. Non-emergency use limited to 50 hr/yr. No limit during emergencies Demonstrate compliance with work or management practices in Table 6(9)	Rule § 63.6640(f), Table 6(9)
Notification Requirements	Applicable notifications must be submitted	Rule § 63.6645
Reporting Requirements	None	Rule § 63.6650
Recordkeeping Requirements	Copies of each notification and report to comply with the subpart Records to demonstrate compliance with work or management practices listed in Table 6(9) Records of maintenance conducted Records of operating hours	Rule § 63.6655(d) Rule § 63.6655(e)(2) Rule § 63.6655(f)

TABLE 8
 APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART ZZZZ
 SJRPP Emergency Generator

Engine Description	Engine Data/Subpart ZZZZ Requirements	Rule Citation
Fuel Used	Diesel	--
CI or SI	CI	--
Located in an Area Source or Major Source of HAPS	Major Source	--
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Emergency	--
Engine Serial Number	--	--
Engine Manufacturer	CAT	--
Engine Model	3512C	--
Engine Power (bhp)	2206	--
No. of Cylinders	12	--
Cylinder Displacement (l)	51.8	--
Engine Construction Date	April 2012	--
Engine Installation Date	April 2013	--
Existing, New, or Reconstructed	New	--
Compliance Date	*	
Emissions Limitations	*	
Operating Limitations	*	
Fuel Requirements	*	
Initial Performance Tests	*	
Monitoring, installation, collection, operation, and maintenance requirements	*	
Initial Compliance	*	
Continuous Compliance	*	
Notification Requirements	Initial notification of engine status (emergency RICE >500 HP at a major source of HAP)	Rule § 63.6645(f)
Reporting Requirements	*	
Recordkeeping Requirements	*	

* The Engine is an existing emergency stationary RICE with a site rating of more than 500 HP located at a major source of HAP emissions and therefore based on Rule § 63.6590(b)(i), does not have to meet the requirements of 40 CFR 63 Subpart ZZZZ except for the initial notification requirements of §63.6645(f).
 This engine is subject to the New Source Performance Standards (NSPS) contained in 40 CFR 60 Subpart IIII, NSPS for Stationary Compression Ignition Internal Combustion Engines.
 Based on 40 CFR 60.4205(b) and 40 CFR 60.4209(a)(2), the engine is subject to the emissions standards for Tier 2 engines contained in 40 CFR 89.112 and 40 CFR 89.113.

TABLE 9
 APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART ZZZZ
 SJRPP Fire Pump

Engine Description	Engine Data/Subpart ZZZZ Requirements	Rule Citation
Fuel Used	Diesel	--
CI or SI	CI	--
Located in an Area Source or Major Source of HAPS	Major Source	--
Use (Emergency, Non-Emergency, Black-Start, Limited-Use)	Emergency	--
Engine Serial Number	--	--
Engine Manufacturer	Cummins	--
Engine Model	CFP9E-F50	--
Engine Power (bhp)	350	--
No. of Cylinders	6	--
Cylinder Displacement (l)	8.9	--
Engine Construction Date	October 2011	--
Engine Installation Date	November 2011	--
Existing, New, or Reconstructed	New	--
Compliance Date	*	
Emissions Limitations	*	
Operating Limitations	*	
Fuel Requirements	*	
Initial Performance Tests	*	
Monitoring, installation, collection, operation, and maintenance requirements	*	
Initial Compliance	*	
Continuous Compliance	*	
Notification Requirements	*	
Reporting Requirements	*	
Recordkeeping Requirements	*	

* The engine, which is a new stationary RICE with a site rating of less than or equal to 500 HP and located at a major source of HAP emissions, is subject to 40 CFR 60 Subpart IIII, New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines and therefore based on Rule § 63.6590(c), is not subject to any requirements under 40 CFR 63 Subpart ZZZZ. This engine is subject to the New Source Performance Standards (NSPS) contained in 40 CFR 60 Subpart IIII, NSPS for Stationary Compression Ignition Internal Combustion Engines. Based on 40 CFR 60.4205(c), the engine is subject to the emissions standards for fire pump engines contained in Table 4 of 40 CFR 60.4205.

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	TANK A
City:	Jacksonville
State:	Florida
Company:	
Type of Tank:	Vertical Fixed Roof Tank
Description:	VOC emissions

Tank Dimensions

Shell Height (ft):	40.00
Diameter (ft):	134.00
Liquid Height (ft):	40.00
Avg. Liquid Height (ft):	40.00
Volume (gallons):	4,200,000.00
Turnovers:	1.00
Net Throughput(gal/yr):	4,200,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	0.00
Slope (ft/ft) (Cone Roof)	0.06

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meteorological Data used in Emissions Calculations: Jacksonville, Florida (Avg Atmospheric Pressure = 14.75 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

TANK A - Vertical Fixed Roof Tank
Jacksonville, Florida

Mixture/Component	Month	Daily Liquid Surf Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract	Vapor Mass Fract	Mol Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Distillate fuel oil no 2	All	69.96	64.29	75.63	68.02	0.0090	0.0076	0.0107	130.0000			188.00	Option 1: VP80 = .0065 VP70 = .009

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

TANK A - Vertical Fixed Roof Tank
Jacksonville, Florida

Components	Losses(lbs)		Total Emissions
	Working Loss	Breathing Loss	
Distillate fuel oil no. 2	116.87	57.51	174.38

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Tank B1
City:	
State:	
Company:	
Type of Tank:	Horizontal Tank
Description:	SJRPP 10,069 gal- Gasoline

Tank Dimensions

Shell Length (ft):	26.75
Diameter (ft):	8.00
Volume (gallons):	10,069.00
Turnovers:	0.00
Net Throughput(gal/yr):	22,000.00
Is Tank Heated (y/n):	N
Is Tank Underground (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meteorological Data used in Emissions Calculations: Jacksonville, Florida (Avg Atmospheric Pressure = 14.75 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Tank B1 - Horizontal Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fract	Vapor Mass Fract	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg	Min.	Max.		Avg.	Min	Max.					
Gasoline (RVP 9)	All	69.96	64.29	75.63	68.02	5.5891	5.0141	6.2157	67.0000			92.00	Option 4: RVP=9, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

Tank B1 - Horizontal Tank

Components	Losses(lbs)		Total Emissions
	Working Loss	Breathing Loss	
Gasoline (RVP 9)	196.15	1,578.72	1,774.87

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Tank B
City:	
State:	
Company:	
Type of Tank:	Horizontal Tank
Description:	SJRPP 10,069 gal Diesel

Tank Dimensions

Shell Length (ft):	26.75
Diameter (ft):	8.00
Volume (gallons):	10,069.00
Turnovers:	19.86
Net Throughput(gal/yr):	200,000.00
Is Tank Heated (y/n):	N
Is Tank Underground (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meteorological Data used in Emissions Calculations: Jacksonville, Florida (Avg Atmospheric Pressure = 14.75 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Tank B - Horizontal Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol Weight	Basis for Vapor Pressure Calculations
		Avg	Min	Max.		Avg	Min.	Max.					
Distillate fuel oil no 2	All	69.96	64.29	75.63	68.02	0.0090	0.0076	0.0107	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

Tank B - Horizontal Tank

Components	Losses(lbs)		Total Emissions
	Working Loss	Breathing Loss	
Distillate fuel oil no. 2	5.57	2.50	8.06

ATTACHMENT JEA-FI-CA1a
ACID RAIN PART APPLICATION

Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.80, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is: New Revised Renewal

STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Plant name Saint Johns River Power Park	FL State	0207 ORIS/Plant Code
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STEP 2

Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO₂ Opt-in unit, enter "yes" in column "b".

For new units or SO₂ Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO ₂ Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO ₂ Opt-in Units Commence Operation Date	New or SO ₂ Opt-in Units Monitor Certification Deadline
1	No	Yes		
2	No	Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		

Plant Name (from STEP 1) Saint Johns River Power Park

STEP 3

Read the standard requirements.

Acid Rain Part Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
 - (ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid Rain Part issued by the DEP; and
 - (ii) Have an Acid Rain Part.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.
- (4) For applications including a SO₂ Opt-in unit, a monitoring plan for each SO₂ Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO₂ Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
 - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Plant Name (from STEP 1) Saint Johns River Power Park

**STEP 3,
Continued.**

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.

(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;

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

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

**STEP 4
For SO₂ Opt-in
units only.**

In column "f" enter the unit ID# for every SO₂ Opt-in unit identified in column "a" of STEP 2.

For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration.

In column "h" enter the hours.

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

Plant Name (from STEP 1) Saint Johns River Power Park

STEP 5

For SO₂ Opt-in units only.
(Not required for SO₂ Opt-in renewal applications.)

In column "j" enter the unit ID# for every SO₂ Opt-in unit identified in column "a" (and in column "f").

For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

i	j	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO ₂ Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO ₂ Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO ₂ Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO ₂ Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)

STEP 6


For SO₂ Opt-in units only.

Attach additional requirements, certify and sign.

- A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
- B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74.
- C. A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14.
- D. Attach a complete compliance plan for SO₂ under 40 CFR 72.40.
- E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b).
- F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."

STEP 7

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Signature		Date
Certification (for designated representative or alternate designated representative only)		
I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.		
Name Michael Brost	Title Vice President, Electric Systems	
Owner Company Name JEA		
Phone 904-665-7547	E-mail address brosmj@jea.com	
Signature 		Date 1-29-13

Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is: New Revised Renewal

STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Plant name Northside Generating Station	FL State	0667 ORIS/Plant Code
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STEP 2

Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO₂ Opt-in unit, enter "yes" in column "b".

For new units or SO₂ Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO ₂ Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO ₂ Opt-in Units Commence Operation Date	New or SO ₂ Opt-in Units Monitor Certification Deadline
1A	No	Yes		
2A	No	Yes		
3	No	Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		

Plant Name (from STEP 1) Northside Generating Station

STEP 3

Read the standard requirements.

Acid Rain Part Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
 - (ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid Rain Part issued by the DEP; and
 - (ii) Have an Acid Rain Part.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.
- (4) For applications including a SO₂ Opt-in unit, a monitoring plan for each SO₂ Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO₂ Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
 - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Plant Name (from STEP 1) Northside Generating Station

**STEP 3,
Continued.**

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

**STEP 4
For SO₂ Opt-in
units only.**

In column "F" enter the unit ID# for every SO₂ Opt-in unit identified in column "a" of STEP 2.

For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration.

In column "h" enter the hours.

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

Plant Name (from STEP 1) Northside Generating Station

STEP 5

For SO₂ Opt-in units only.
(Not required for SO₂ Opt-in renewal applications.)

In column "i" enter the unit ID# for every SO₂ Opt-in unit identified in column "a" (and in column "f").

For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

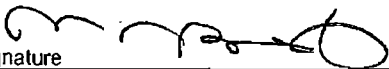
i	j	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO ₂ Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO ₂ Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO ₂ Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO ₂ Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)

STEP 6

For SO₂ Opt-in units only.

Attach additional requirements, certify and sign.

- A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
- B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74.
- C. A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14.
- D. Attach a complete compliance plan for SO₂ under 40 CFR 72.40.
- E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b).
- F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."

Signature		Date
Certification (for designated representative or alternate designated representative only)		
I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.		
Name Michael Brost	Title Vice President, Electric Systems	
Owner Company Name JEA		
Phone 904-665-7547	E-mail address brosmj@jea.com	
Signature 		Date 1-29-13

STEP 7

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

ATTACHMENT JEA-FI-CA1b
PHASE II NOX AVERAGING PLAN

SECTION IV. ACID RAIN PART.



United States Environmental Protection Agency Acid Rain Program

OMB No. 2060-0258

Phase II NO_x Compliance Plan

Page 1 of 2

For more information, see instructions and refer to 40 CFR 76.9

This submission is: New Revised

STEP 1
Indicate plant name, State, and ORIS code from NADB, if applicable

Plant Name	St. Johns River Power	FL	207
		State	ORIS Code

STEP 2

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

ID#	ID#	ID#	ID#	ID#	ID#
Type	Type	Type	Type	Type	Type
1	2				
DBW	DBW				

- (a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)
- (b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)
- (c) EPA-approved early election plan under 40 CFR 76.9 through 12/31/97 (also indicate above emission limit specified in plan).
- (d) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase II dry bottom wall-fired boilers)
- (e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)
- (f) Standard annual average emission limitation of 0.35 lb/mmBtu (for cell burner boilers)
- (g) Standard annual average emission limitation of 0.35 lb/mmBtu (for cyclone boilers)
- (h) Standard annual average emission limitation of 0.30 lb/mmBtu (for vertically fired boilers)
- (i) Standard annual average emission limitation of 0.30 lb/mmBtu (for wet bottom boilers)
- (j) NO_x Averaging Plan (Include NO_x Averaging form)
- (k) Common stack pursuant to 40 CFR 76.17(a)(2)(ii)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)
- (l) Common stack pursuant to 40 CFR 76.17(a)(2)(ii)(B) with NO_x Averaging (check the NO_x Averaging Plan box and include NO_x Averaging form)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EPA Form 7610-23 (12-03)

SECTION IV. ACID RAIN PART.

St. Johns River Power
Plant Name (from Step 1)

NO, Compliance - Page 2
Page 2 of 2

STEP 2, cont'd.

IDs 1 DBW Type	IDs 2 DBW Type	IDs Type	IDs Type	IDs Type	IDs Type
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(m) EPA-approved common stack apportionment method pursuant to 40 CFR 78.17 (a)(2)(HC), (a)(2)(B)(B), or (b)(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(p) Repowering extension plan approved or under review	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

STEP 3
Read the standard requirements and certification, enter the name of the designated representative, sign &

Standard Requirements

General: This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 78.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 78.8(e)(2) except as provided under 40 CFR 78.8(e)(3)(B).

Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 78.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 78.8 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 78.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 78.7.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name ATHENA T. ALANN
Signature A T Mann Date 04/22/2008

ATTACHMENT JEA-FI-CA2

CAIR PART

Clean Air Interstate Rule (CAIR) Part

For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.322; and Rule 62-296.470, F.A.C.

This submission is: New Revised Renewal

STEP 1

Identify the source by plant name and ORIS or EIA plant code

Plant Name: Saint Johns River Power Park	State: Florida	ORIS or EIA Plant Code: 0207
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STEP 2

In column "a" enter the unit ID# for every CAIR unit at the CAIR source.

In columns "b," "c," and "d," indicate to which CAIR program(s) each unit is subject by placing an "X" in the column(s).

For new units, enter the requested information in columns "e" and "f."

a	b	c	d	e	f
Unit ID#	Unit will hold nitrogen oxides (NO _x) allowances in accordance with 40 CFR 96.106(c)(1)	Unit will hold sulfur dioxide (SO ₂) allowances in accordance with 40 CFR 96.206(c)(1)	Unit will hold NO _x Ozone Season allowances in accordance with 40 CFR 96.306(c)(1)	New Units Expected Commence Commercial Operation Date	New Units Expected Monitor Certification Deadline
1	X	X	X		
2	X	X	X		

Plant Name (from STEP 1) Saint Johns River Power Park

STEP 3

Read the standard requirements.

CAIR NO_x ANNUAL TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO_x source and each CAIR NO_x unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved];
- (2) The owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x source and each CAIR NO_x unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO_x source with the following CAIR NO_x Emissions Requirements.

NO_x Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 40 CFR 96.154(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with 40 CFR Part 96, Subpart HH.
- (2) A CAIR NO_x unit shall be subject to the requirements under paragraph (1) of the NO_x Requirements starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR NO_x allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Requirements, for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.
- (4) CAIR NO_x allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FF and GG.
- (5) A CAIR NO_x allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR Part, or an exemption under 40 CFR 96.105 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR NO_x allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x unit.

Excess Emissions Requirements.

If a CAIR NO_x source emits NO_x during any control period in excess of the CAIR NO_x emissions limitation, then:

- (1) The owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR NO_x source and each CAIR NO_x unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
 - (i) The certificate of representation under 40 CFR 96.113 for the CAIR designated representative for the source and each CAIR NO_x unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program.
 - (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program.
- (2) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x unit at the source shall submit the reports required under the CAIR NO_x Annual Trading Program, including those under 40 CFR Part 96, Subpart HH.

Plant Name (from STEP 1) Saint Johns River Power Park

**STEP 3,
Continued**

Liability.

- (1) Each CAIR NO_x source and each CAIR NO_x unit shall meet the requirements of the CAIR NO_x Annual Trading Program.
- (2) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x source or the CAIR designated representative of a CAIR NO_x source shall also apply to the owners and operators of such source and of the CAIR NO_x units at the source.
- (3) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x unit or the CAIR designated representative of a CAIR NO_x unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_x Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 96.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source or CAIR NO_x unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR SO₂ TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.222 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved];
- (2) The owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR SO₂ source and each SO₂ CAIR unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH, shall be used to determine compliance by each CAIR SO₂ source with the following CAIR SO₂ Emission Requirements.

SO₂ Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO₂ allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 96.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHH.
- (2) A CAIR SO₂ unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.270(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO₂ Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.
- (4) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFF and GGG.
- (5) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ Trading Program, the CAIR Part, or an exemption under 40 CFR 96.205 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR SO₂ allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO₂ unit.

Excess Emissions Requirements.

If a CAIR SO₂ source emits SO₂ during any control period in excess of the CAIR SO₂ emissions limitation, then:

- (1) The owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ allowances required for deduction under 40 CFR 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable state law.

Plant Name (from STEP 1) Saint Johns River Power Park

**STEP 3,
Continued**

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.

(i) The certificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO₂ unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.213 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO₂ Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO₂ Trading Program or to demonstrate compliance with the requirements of the CAIR SO₂ Trading Program.

(2) The CAIR designated representative of a CAIR SO₂ source and each CAIR SO₂ unit at the source shall submit the reports required under the CAIR SO₂ Trading Program, including those under 40 CFR Part 96, Subpart HHH.

Liability.

(1) Each CAIR SO₂ source and each CAIR SO₂ unit shall meet the requirements of the CAIR SO₂ Trading Program.

(2) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ source or the CAIR designated representative of a CAIR SO₂ source shall also apply to the owners and operators of such source and of the CAIR SO₂ units at the source.

(3) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ unit or the CAIR designated representative of a CAIR SO₂ unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR SO₂ Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO₂ source or CAIR SO₂ unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR NO_x OZONE SEASON TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall:

(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and

(ii) [Reserved];

(2) The owners and operators of each CAIR NO_x Ozone Season source required to have a Title V operating permit or air construction permit, and each CAIR NO_x Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 96, Subpart CCCC, for the source and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 62-296.470, F.A.C.

(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine compliance by each CAIR NO_x Ozone Season source with the following CAIR NO_x Ozone Season Emissions Requirements.

NO_x Ozone Season Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_x Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.

(2) A CAIR NO_x Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.370(b)(1),(2), or (3) and for each control period thereafter.

(3) A CAIR NO_x Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO_x Ozone Season allowance was allocated.

(4) CAIR NO_x Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFFF and GGGG.

(5) A CAIR NO_x Ozone Season allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Ozone Season Trading Program. No provision of the CAIR NO_x Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_x Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from a CAIR NO_x Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x Ozone Season unit.

Plant Name (from STEP 1) Saint Johns River Power Park

**STEP 3,
Continued**

Excess Emissions Requirements.

If a CAIR NO_x Ozone Season source emits NO_x during any control period in excess of the CAIR NO_x Ozone Season emissions limitation, then:
(1) The owners and operators of the source and each CAIR NO_x Ozone Season unit at the source shall surrender the CAIR NO_x Ozone Season allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.

(i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO_x Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Ozone Season Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Ozone Season Trading Program.

(2) The CAIR designated representative of a CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall submit the reports required under the CAIR NO_x Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

Liability.

(1) Each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit shall meet the requirements of the CAIR NO_x Ozone Season Trading Program.

(2) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season source or the CAIR designated representative of a CAIR NO_x Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO_x Ozone Season units at the source.

(3) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season unit or the CAIR designated representative of a CAIR NO_x Ozone Season unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.


No provision of the CAIR NO_x Ozone Season Trading Program, a CAIR Part, or an exemption under 40 CFR 96.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x Ozone Season source or CAIR NO_x Ozone Season unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

STEP 4

Certification (for designated representative or alternate designated representative only)

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name: Michael Brost		Title: Vice President, Electric Systems	
Company Owner Name: JEA			
Phone: (904) 665-7547		E-mail Address: brosmj@jea.com	
Signature 		Date 1-29-13	

Clean Air Interstate Rule (CAIR) Part

For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.322; and Rule 62-296.470, F.A.C.

This submission is: New Revised Renewal

STEP 1

Identify the source by plant name and ORIS or EIA plant code

Plant Name: Northside Generating Station	State: Florida	ORIS or EIA Plant Code: 0667
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STEP 2

In column "a" enter the unit ID# for every CAIR unit at the CAIR source.

In columns "b," "c," and "d," indicate to which CAIR program(s) each unit is subject by placing an "X" in the column(s).

For new units, enter the requested information in columns "e" and "f."

a	b	c	d	e	f
Unit ID#	Unit will hold nitrogen oxides (NO _x) allowances in accordance with 40 CFR 96.106(c)(1)	Unit will hold sulfur dioxide (SO ₂) allowances in accordance with 40 CFR 96.206(c)(1)	Unit will hold NO _x Ozone Season allowances in accordance with 40 CFR 96.306(c)(1)	New Units Expected Commence Commercial Operation Date	New Units Expected Monitor Certification Deadline
1A	X	X	X		
2A	X	X	X		
3	X	X	X		
GT3	X	X	X		
GT4	X	X	X		
GT5	X	X	X		
GT6	X	X	X		

Plant Name (from STEP 1) Northside Generating Station

STEP 3

Read the
standard
requirements.

CAIR NO_x ANNUAL TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO_x source and each CAIR NO_x unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved];
- (2) The owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x source and each CAIR NO_x unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO_x source with the following CAIR NO_x Emissions Requirements.

NO_x Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 40 CFR 96.154(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with 40 CFR Part 96, Subpart HH.
- (2) A CAIR NO_x unit shall be subject to the requirements under paragraph (1) of the NO_x Requirements starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR NO_x allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Requirements, for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.
- (4) CAIR NO_x allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FF and GG.
- (5) A CAIR NO_x allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR Part, or an exemption under 40 CFR 96.105 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR NO_x allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x unit.

Excess Emissions Requirements.

If a CAIR NO_x source emits NO_x during any control period in excess of the CAIR NO_x emissions limitation, then:

- (1) The owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR NO_x source and each CAIR NO_x unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
 - (i) The certificate of representation under 40 CFR 96.113 for the CAIR designated representative for the source and each CAIR NO_x unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program.
 - (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program.
- (2) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x unit at the source shall submit the reports required under the CAIR NO_x Annual Trading Program, including those under 40 CFR Part 96, Subpart HH.

Plant Name (from STEP 1) Northside Generating Station

**STEP 3,
Continued**

Liability.

- (1) Each CAIR NO_x source and each CAIR NO_x unit shall meet the requirements of the CAIR NO_x Annual Trading Program.
- (2) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x source or the CAIR designated representative of a CAIR NO_x source shall also apply to the owners and operators of such source and of the CAIR NO_x units at the source.
- (3) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x unit or the CAIR designated representative of a CAIR NO_x unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_x Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 96.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source or CAIR NO_x unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR SO₂ TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.222 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved];
- (2) The owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR SO₂ source and each SO₂ CAIR unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH, shall be used to determine compliance by each CAIR SO₂ source with the following CAIR SO₂ Emission Requirements.

SO₂ Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO₂ allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 96.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHH.
- (2) A CAIR SO₂ unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.270(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO₂ Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.
- (4) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFF and GGG.
- (5) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ Trading Program, the CAIR Part, or an exemption under 40 CFR 96.205 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR SO₂ allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO₂ unit.

Excess Emissions Requirements.

If a CAIR SO₂ source emits SO₂ during any control period in excess of the CAIR SO₂ emissions limitation, then:

- (1) The owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ allowances required for deduction under 40 CFR 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable state law.

Plant Name (from STEP 1) Northside Generating Station

**STEP 3,
Continued**

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.

(i) The certificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO₂ unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.213 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO₂ Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO₂ Trading Program or to demonstrate compliance with the requirements of the CAIR SO₂ Trading Program.

(2) The CAIR designated representative of a CAIR SO₂ source and each CAIR SO₂ unit at the source shall submit the reports required under the CAIR SO₂ Trading Program, including those under 40 CFR Part 96, Subpart HHH.

Liability.

(1) Each CAIR SO₂ source and each CAIR SO₂ unit shall meet the requirements of the CAIR SO₂ Trading Program.

(2) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ source or the CAIR designated representative of a CAIR SO₂ source shall also apply to the owners and operators of such source and of the CAIR SO₂ units at the source.

(3) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ unit or the CAIR designated representative of a CAIR SO₂ unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR SO₂ Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO₂ source or CAIR SO₂ unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR NO_x OZONE SEASON TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall:

(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and

(ii) [Reserved];

(2) The owners and operators of each CAIR NO_x Ozone Season source required to have a Title V operating permit or air construction permit, and each CAIR NO_x Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 62-296.470, F.A.C.

(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine compliance by each CAIR NO_x Ozone Season source with the following CAIR NO_x Ozone Season Emissions Requirements.

NO_x Ozone Season Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_x Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.

(2) A CAIR NO_x Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.370(b)(1),(2), or (3) and for each control period thereafter.

(3) A CAIR NO_x Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO_x Ozone Season allowance was allocated.

(4) CAIR NO_x Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFFF and GGGG.

(5) A CAIR NO_x Ozone Season allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Ozone Season Trading Program. No provision of the CAIR NO_x Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_x Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a

CAIR NO_x Ozone Season allowance to or from a CAIR NO_x Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x Ozone Season unit.

Plant Name (from STEP 1) Northside Generating Station
--

**STEP 3,
Continued**

Excess Emissions Requirements.

If a CAIR NO_x Ozone Season source emits NO_x during any control period in excess of the CAIR NO_x Ozone Season emissions limitation, then:

- (1) The owners and operators of the source and each CAIR NO_x Ozone Season unit at the source shall surrender the CAIR NO_x Ozone Season allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
 - (i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO_x Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Ozone Season Trading Program.
 - (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Ozone Season Trading Program.
- (2) The CAIR designated representative of a CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall submit the reports required under the CAIR NO_x Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

Liability.

- (1) Each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit shall meet the requirements of the CAIR NO_x Ozone Season Trading Program.
- (2) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season source or the CAIR designated representative of a CAIR NO_x Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO_x Ozone Season units at the source.
- (3) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season unit or the CAIR designated representative of a CAIR NO_x Ozone Season unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.


No provision of the CAIR NO_x Ozone Season Trading Program, a CAIR Part, or an exemption under 40 CFR 96.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x Ozone Season source or CAIR NO_x Ozone Season unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

STEP 4

Certification (for designated representative or alternate designated representative only)

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Michael Brost	Title Vice President, Electric Systems
Company Owner Name JEA	
Phone 904-665-7547	E-mail Address brosmj@jea.com
Signature 	Date 1-29-13

EMISSIONS UNIT INFORMATION

Section [1]

NGS - Boiler No. 3

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]
NGS - Boiler No. 3

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:
NGS Unit 3 is a fossil fuel-fired steam generator with a nominal nameplate rating of 563.7 MW.

3. Emissions Unit Identification Number: **003**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date: 06/28/1977	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)

- Acid Rain Unit
 CAIR Unit

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

10. Generator Nameplate Rating: **563.7 MW**

11. Emissions Unit Comment:

EMISSIONS UNIT INFORMATION

Section [1]
NGS - Boiler No. 3

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [1]
NGS - Boiler No. 3

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:	5,260 million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	24 hours/day 52 weeks/year	7 days/week 8,760 hours/year
6. Operating Capacity/Schedule Comment:	The nominal maximum heat input rates are: 5,260 MMBtu/hr when firing natural gas 5,260 MMBtu/hr when firing landfill gas 5,033 MMBtu/hr when firing new No. 6 fuel oil 5,033 MMBtu/hr when firing "on-specification" used oil 5,033-5,260 MMBtu/hr when firing blends of fuel oil/natural gas/landfill gas	

EMISSIONS UNIT INFORMATION

**Section [1]
NGS - Boiler No. 3**

**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: EU003		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: The combustion gases exhaust through a 300-ft stack.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 300 feet	7. Exit Diameter: 15.5 feet	
8. Exit Temperature: 256.1°F	9. Actual Volumetric Flow Rate: 1,728,086 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: Exit temperature and actual volumetric flow rate are based on the data from Particulate Matter and Visible Emissions Test Report (Test Report number: 20-5554-03-001, completed on July 18, 2012).			

EMISSIONS UNIT INFORMATION

Section [1]
NGS - Boiler No. 3

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Residual Oil; Grade 6 Oil: Normal Firing		
2. Source Classification Code (SCC): 1-01-004-01		3. SCC Units: 1,000 Gallons burned
4. Maximum Hourly Rate: 33.55	5. Maximum Annual Rate: 293,898	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 1.8	8. Maximum % Ash:	9. Million Btu per SCC Unit: 150
10. Segment Comment: Maximum rates based on the maximum heat input rate of 5,033 MMBtu/hr. Maximum hourly rate=5,033 MMBtu/hr/150 MMBtu/kgal=33.55 kgal/hr Maximum annual rate=33.55 kgal/hr x 8760 hr/yr=293,898 kgal/yr		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Natural Gas; Boilers >100 MMBtu/hr except Tangential		
2. Source Classification Code (SCC): 1-01-006-01		3. SCC Units: Million Cubic Feet Burned
4. Maximum Hourly Rate: 5.01	5. Maximum Annual Rate: 43,888	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1,050
10. Segment Comment: Maximum rates based on the maximum heat input rate of 5,260 MMBtu/hr. Maximum hourly rate=5,260 MMBtu/hr/(1050 MMBtu/MMscf)=5.01 MMscf/hr Maximum annual rate=5.01 MMscf/hr x 8760 hr/yr=43,888 MMscf/yr		

EMISSIONS UNIT INFORMATION

Section [1]
NGS - Boiler No. 3

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; Landfill Gas		
2. Source Classification Code (SCC): 1-01-006-01		3. SCC Units: Million Cubic Feet Burned
4. Maximum Hourly Rate: 13.15	5. Maximum Annual Rate: 115,194	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 400
10. Segment Comment: Maximum rates based on the maximum heat input rate of 5,260 MMBtu/hr. Maximum hourly rate=5,260 MMBtu/hr/(400 MMBtu/MMscf)=13.15 MMscf/hr Maximum annual rate=13.15 MMscf/hr x 8760 hr/yr=115,194 MMscf/yr The landfill gas heating value of 400 MMBtu/mcf is based on EPA's AP-42 data.		

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

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Liquid Waste; "On-Specification" Used Oil		
2. Source Classification Code (SCC): 1-01-013-02		3. SCC Units: 1,000 Gallons burned
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 1,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Limited to 1,000,000 gallons per calendar year per permit No. 0310045-038-AV.		

EMISSIONS UNIT INFORMATION

Section [1]
NGS - Boiler No. 3

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			EL
CO			NS
SO2			EL
VOC			NS
PM			EL
PM10			NS
PB			NS
Antimony Compounds (H014)			NS
Cobalt Compounds (H047)			NS
Formaldehyde (H095)			NS
Hexane (H104)			NS
Nickel Compounds (H133)			NS
Phosphorus (H148)			NS
Toluene (H169)			NS
HAPS			NS

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

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NGS - Boiler No. 3

Page [1] of [3]
Nitrogen Oxides

**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: 1,578 lb/hour 3,600 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: 0.3 lb/MMBtu Reference: JEPB Rule 2.1001 and Permit No. 0310045-038-AV		7. Emissions Method Code: 0	
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: Hourly NOx emissions rate: 0.3 lb/MMBtu x 5,260 MMBtu/hr = 1,578 lb/hr.			
11. Potential, Fugitive, and Actual Emissions Comment: Annual NOx emissions from CFB Boilers Nos. 1 and 2 and Boiler No. 3 combined are limited to 3,600 TPY (rolling average). Community commitment proposed by JEA (Permit No. 0310045-003-AC/PSD-FL-265).			

**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 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.30 lb/MMBtu	4. Equivalent Allowable Emissions: 1,578 lb/hour tons/year
5. Method of Compliance: CEMS for NOx (30-day rolling average)	
6. Allowable Emissions Comment (Description of Operating Method): Based on Permit No. 0310045-038-AV and Part X, Rule 2.1001, JEPB.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 3,600 TPY	4. Equivalent Allowable Emissions: lb/hour 3,600 tons/year
5. Method of Compliance: CEMS for NOx (including emissions during startup, shutdown and malfunction)	
6. Allowable Emissions Comment (Description of Operating Method): NOx emissions from CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 combined are limited to 3,600 tons during any consecutive 12-month period on a rolling basis (Permit No. 0310045-003-AC/PSD-FL-265).	

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]
NGS - Boiler No. 3

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Sulfur Dioxide

**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: 10,415 lb/hour 12,284 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: 1.98 lb/MMBtu Reference: JEPB Rule 2.1001 and Permit No. 0310045-038-AV		7. Emissions Method Code: 0	
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: Hourly SO₂ emissions rate: 1.98 lb/MMBtu x 5,260 MMBtu/hr = 10,415 lb/hr.			
11. Potential, Fugitive, and Actual Emissions Comment: Annual SO₂ emissions from CFB Boilers Nos. 1, 2 and 3 combined are limited to 12,284 TPY (rolling average) based on community commitment proposed by JEA (Permit No. 0310045-003-AC/PSD-FL-265).			

**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 3

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 1.98 lb/MMBtu	4. Equivalent Allowable Emissions: 10,415 lb/hour tons/year
5. Method of Compliance: CEMS for SO2 (daily average)	
6. Allowable Emissions Comment (Description of Operating Method): Based on Part X of JEPB Rule 2.1001 and Permit No. 0310045-038-AV.	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 12,284 TPY	4. Equivalent Allowable Emissions: lb/hour 12,284 tons/year
5. Method of Compliance: CEMS for SO2 (including emissions during startup, shutdown and malfunction)	
6. Allowable Emissions Comment (Description of Operating Method): Sulfur dioxide from CFB Boilers Nos. 1, 2 and 3 combined is limited to 12,284 tons during any consecutive 12-month period on a rolling basis (Permit No. 0310045-003-AC/ PSD-FL-265)	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: Fuel sulfur limited to 1.8%	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: Fuel sampling	
6. Allowable Emissions Comment (Description of Operating Method): Limit applies if SO₂ CEM becomes temporarily inoperable or interrupted. Based on Permit No. 0310045-038-AV and Part X of JEPB Rule 2.1001.	

**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: 1,578 lb/hour 881 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: 0.3 lb/MMBtu Reference: JEPB Rule 2.1001 and Permit No. 0310045-038-AV		7. Emissions Method Code: 0	
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: Hourly PM emissions rate: 0.3 lb/MMBtu x 5,260 MMBtu/hr = 1,578 lb/hr			
11. Potential, Fugitive, and Actual Emissions Comment: Annual PM emissions from CFB Boilers Nos. 1, 2 and 3 combined are limited to 881 TPY (rolling average) based on community commitment proposed by JEA (0310045-003-AC/PSD-FL-265).			

EMISSIONS UNIT INFORMATION

Section [1]
NGS - Boiler No. 3

POLLUTANT DETAIL INFORMATION

Page [3] of [3]
Particulate Matter

**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 3

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.1 lb/MMBtu	4. Equivalent Allowable Emissions: 526 lb/hour tons/year
5. Method of Compliance: Annual testing using EPA Methods 17, 5, 5B, or 5F	
6. Allowable Emissions Comment (Description of Operating Method): Based on Permit No. 0310045-038-AV and Part X of JEPB Rule 2.1001.	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.3 lb/MMBtu (soot blowing and load change)	4. Equivalent Allowable Emissions: 1,578 lb/hour tons/year
5. Method of Compliance: Annual testing using EPA Methods 17, 5, 5B, or 5F	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions during soot blowing and load change for 3 hours in any 24-hour period. Based on Permit No. 0310045-038-AV and Part III of JEPB Rule 2.301.	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 881 TPY	4. Equivalent Allowable Emissions: lb/hour 881 tons/year
5. Method of Compliance: Annual testing using EPA Methods 17, 5, 5B, or 5F	
6. Allowable Emissions Comment (Description of Operating Method): Stack emissions of particulate matter (PM) from CFB Boilers Nos. 1, 2 and 3 combined are limited to 881 tons during any consecutive 12-month period on a rolling basis (Permit No. 0310045-003-AC/PSD-FL-265).	

EMISSIONS UNIT INFORMATION

Section [1]
NGS - Boiler No. 3

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: VE40	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 40 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: DEP Method 9	
5. Visible Emissions Comment: Rules 62-296.405(1)(a) and 62-296.702(2)(b), F.A.C.	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: VE60	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 60 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: DEP Method 9	
5. Visible Emissions Comment: Rule 62-210.700(3) F.A.C. Excess emissions during boiler cleaning (soot blowing) and load change are allowed for 3 hours in any 24 hour period.	

EMISSIONS UNIT INFORMATION

Section [1]
NGS - Boiler No. 3

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 3

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: TECO Model Number: 42C Serial Number: 0501710240	
5. Installation Date: February 9, 2010	6. Performance Specification Test Date: Jan-Feb 2009
7. Continuous Monitor Comment: 40 CFR 75 requirement.	

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: EM	2. Pollutant(s): SO2
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: TECO Model Number: 43C Serial Number: 0462408776	
5. Installation Date: October 1, 2007	6. Performance Specification Test Date: Sep-Oct 2007
7. Continuous Monitor Comment: 40 CFR 75 requirement.	

EMISSIONS UNIT INFORMATION

Section [1]
NGS - Boiler No. 3

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

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

1. Parameter Code: CO2	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: CAI Model Number: ZRH01 Serial Number: A4B1700T	
5. Installation Date: March 20, 2005	6. Performance Specification Test Date: April-May 2005
7. Continuous Monitor Comment: 40 CFR 75 requirement.	

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]
NGS - Boiler No. 3

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I1</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I2</u> <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I4</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I4 & I5</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: <u>July 18, 2012 / PM, VE</u> <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [1]
NGS - Boiler No. 3

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 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 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 type="checkbox"/> Not Applicable

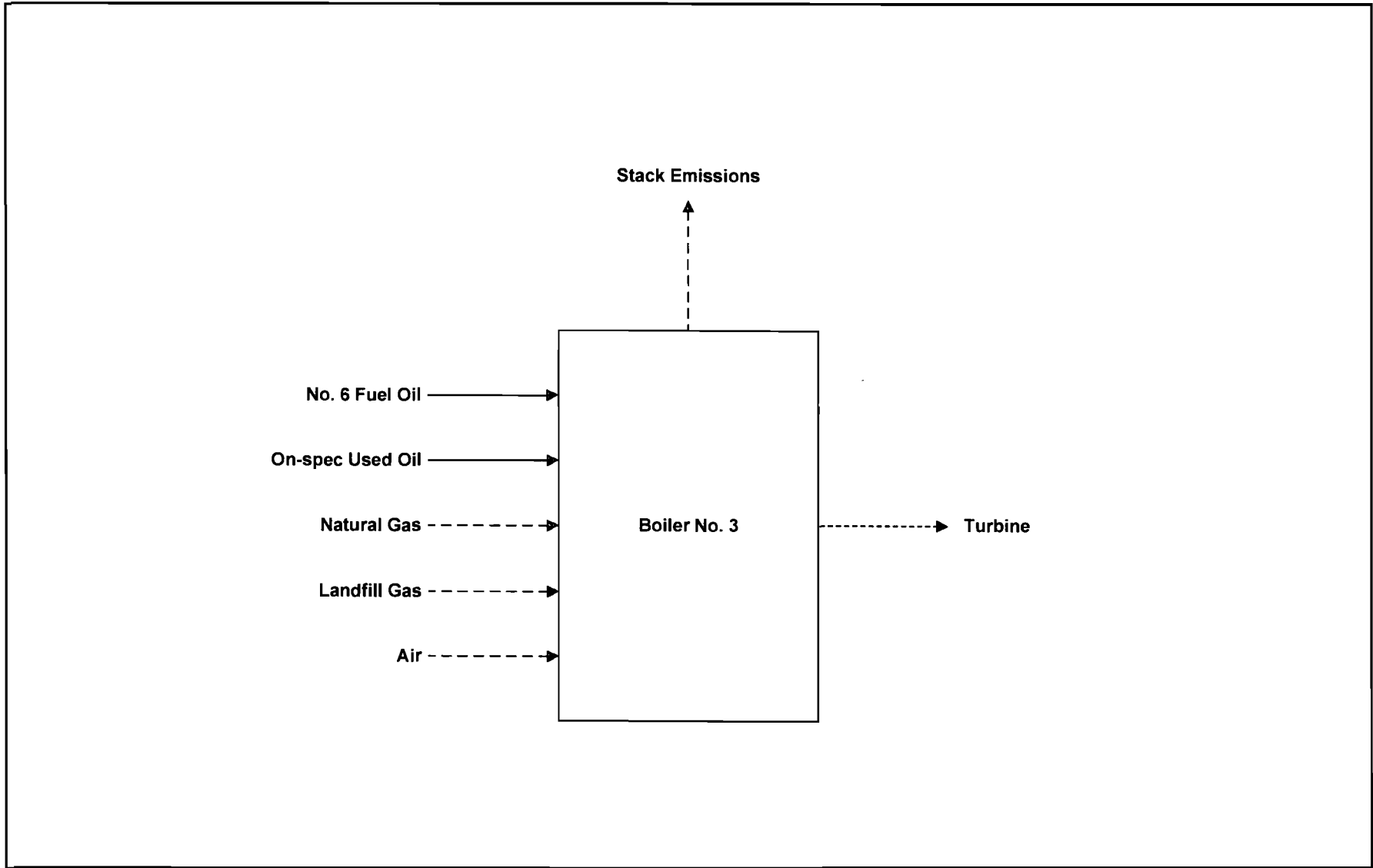
Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-IV1</u>
2. Compliance Assurance Monitoring: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation: <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-IV3</u> <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

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ATTACHMENT JEA-EU1-I1
PROCESS FLOW DIAGRAM



Attachment JEA-EU1-11
Process Flow Diagram
Northside Generating Station Boiler No. 3
(EU 003)

Process Flow Legend	
Solid/Liquid	—————▶
Gas	- - - - -▶
Steam	- - - - -▶



ATTACHMENT JEA-EU1-I2

FUEL ANALYSIS

JEA / JACKSONVILLE ELECTRIC AUTHORITY
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E-mail: Saybolt.flauderdale@corelab.com
Handled by: Armando Mejia

Report no. 13062/3128A.01.1/12
Report date 02/Jan/2013
Object JEA QUARTERLY INVENTORY
Product #6 Fuel Oil
Location Jacksonville, FL, JEA Northside Plant
Outturn Date 31/Dec/2012

CERTIFICATE OF ANALYSIS

Sample submitted as #6 Fuel Oil
Received Sampled by Saybolt Inspector
Marked JEA Northside Plant - Tanks # 4
Date of sampling 31/Dec/2012
Testing completed 10/Jan/2013 Time
Sealed Open
Lab number 1488

Test	Analyte	Unit	Method	Specification	Result	
					Prefix	Figure
API Gravity at 60°F	API Gravity	API	ASTM D 287	Report		11.6
Heat of Combustion	Heat of Combustion	BTU/Gal	ASTM D 240	Report		151590
Sulfur X-Ray	Sulfur total	m/m%	ASTM D 4294	Report		1.61
Ash	Ash	m/m%	ASTM D 482	Report		0.039
Asphaltenes	Asphaltenes	m/m%	IP 143	Report		5.0

Precision parameters apply in the evaluation of the test results specified above. Please also refer to ASTM D3244 (except for analysis of RFG), IP367 and appendix E of IP standard methods for analysis and testing with respect to the utilization of test data to determine conformance with specifications.

This report is issued in accordance with the General Terms and Conditions of Saybolt Jacksonville, FL and the recipient is deemed to have full knowledge thereof.

Remarks

Armando Mejia
Armando Mejia

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Report no. 13062/3128A.01.I/12
Report date 02/Jan/2013
Object JEA QUARTERLY INVENTORY
Product #6 Fuel Oil
Location Jacksonville, FL, JEA Northside Plant
Outturn Date 31/Dec/2012

Sample submitted as #6 Fuel Oil
Received Sampled by Saybolt Inspector
Marked JEA Northside Plant - Tanks # 5
Date of sampling 31/Dec/2012
Testing completed 10/Jan/2013 Time
Sealed Open
Lab number 1489

CERTIFICATE OF ANALYSIS

Test	Analyte	Unit	Method	Specification	Result	
					Prefix	Figure
API Gravity at 60°F	API Gravity	API	ASTM D 287	Report	10.3	
Heat of Combustion	Heat of Combustion	BTU/Gal	ASTM D 240	Report	151825	
Sulfur X-Ray	Sulfur total	m/m%	ASTM D 4294	Report	1.68	
Ash	Ash	m/m%	ASTM D 482	Report	0.053	
Asphaltenes	Asphaltenes	m/m%	IP 143	Report	5.3	

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Report no. 13062/3128A.01.1/12
Report date 02/Jan/2013
Object JEA QUARTERLY INVENTORY
Product #6 Fuel Oil
Location Jacksonville, FL, JEA Northside Plant
Outturn Date 31/Dec/2012

CERTIFICATE OF ANALYSIS

Sample submitted as #6 Fuel Oil
Received Sampled by Saybolt Inspector
Marked JEA Northside Plant - Tanks # 6
Date of sampling 31/Dec/2012
Testing completed 10/Jan/2013 Time
Sealed Open
Lab number 1490

Test	Analyte	Unit	Method	Specification	Result	
					Prefix	Figure
API Gravity at 60°F	API Gravity	API	ASTM D 287	Report	11.6	
Heat of Combustion	Heat of Combustion	BTU/Gal	ASTM D 240	Report	151582	
Sulfur X-Ray	Sulfur total	m/m%	ASTM D 4294	Report	1.65	
Ash	Ash	m/m%	ASTM D 482	Report	0.049	
Asphaltenes	Asphaltenes	m/m%	IP 143	Report	5.3	

Precision parameters apply in the evaluation of the test results specified above. Please also refer to ASTM D3244 (except for analysis of RFG), IP367 and appendix E of IP standard methods for analysis and testing with respect to the utilization of test data to determine conformance with specifications.

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Report no. 13062/3128A.01.I/12
Report date 02/Jan/2013
Object JEA QUARTERLY INVENTORY
Product #6 Fuel Oil
Location Jacksonville, FL, JEA Northside Plant
Outturn Date 31/Dec/2012

CERTIFICATE OF ANALYSIS

Sample submitted as #6 Fuel Oil
Received Sampled by Saybolt Inspector
Marked JEA Northside Plant - Tanks # 7
Date of sampling 31/Dec/2012
Testing completed 10/Jan/2013 Time
Sealed Open
Lab number 1491

Test	Analyte	Unit	Method	Specification	Result	
					Prefix	Figure
API Gravity at 60°F	API Gravity	API	ASTM D 287	Report		11.5
Heat of Combustion	Heat of Combustion	BTU/Gal	ASTM D 240	Report		151584
Sulfur X-Ray	Sulfur total	m/m%	ASTM D 4294	Report		1.59
Ash	Ash	m/m%	ASTM D 482	Report		0.040
Asphaltenes	Asphaltenes	m/m%	IP 143	Report		5.2

Precision parameters apply in the evaluation of the test results specified above. Please also refer to ASTM D3244 (except for analysis of RFG), IP367 and appendix E of IP standard methods for analysis and testing with respect to the utilization of test data to determine conformance with specifications.

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Date	BTU	CO2	N2	Grav	Methan	Ethane	Propan	Ibutan	Nbutan	Ipenta	Npenta	C6	Wobbe	CHDP
3/12/2013	1015	1.222	0.344	0.579	96.71	1.45	0.167	0.033	0.035	0.013	0.009	0.018	1335	-21
3/11/2013	1015	1.181	0.344	0.578	96.811	1.395	0.162	0.033	0.034	0.013	0.008	0.019	1335	-21
3/10/2013	1014	1.222	0.354	0.578	96.839	1.33	0.152	0.032	0.032	0.013	0.008	0.019	1334	-21
3/8/2013	1013	1.269	0.358	0.578	96.772	1.348	0.148	0.032	0.032	0.013	0.009	0.02	1332	-20
3/7/2013	1014	1.267	0.353	0.579	96.745	1.38	0.151	0.032	0.032	0.013	0.009	0.019	1333	-20
3/6/2013	1014	1.268	0.358	0.579	96.668	1.441	0.159	0.033	0.033	0.013	0.008	0.018	1333	-22
3/5/2013	1014	1.267	0.367	0.579	96.635	1.461	0.163	0.033	0.034	0.013	0.008	0.019	1333	-21
3/4/2013	1015	1.277	0.367	0.579	96.58	1.506	0.163	0.033	0.034	0.013	0.008	0.018	1333	-22
3/3/2013	1014	1.29	0.37	0.579	96.588	1.491	0.16	0.031	0.032	0.013	0.008	0.016	1332	-24
3/2/2013	1016	1.258	0.372	0.58	96.543	1.53	0.18	0.037	0.037	0.015	0.009	0.019	1334	-20
3/1/2013	1015	1.235	0.357	0.579	96.678	1.45	0.167	0.036	0.035	0.014	0.009	0.019	1334	-21
2/28/2013	1015	1.27	0.371	0.58	96.54	1.533	0.173	0.036	0.035	0.014	0.008	0.018	1333	-21
2/27/2013	1016	1.238	0.359	0.579	96.587	1.524	0.176	0.037	0.037	0.015	0.009	0.019	1334	-20
2/26/2013	1016	1.222	0.354	0.579	96.603	1.521	0.181	0.038	0.038	0.015	0.009	0.019	1335	-20
2/25/2013	1016	1.215	0.359	0.579	96.638	1.499	0.176	0.037	0.036	0.014	0.009	0.018	1335	-21
2/24/2013	1016	1.204	0.359	0.579	96.622	1.534	0.171	0.036	0.035	0.014	0.008	0.017	1335	-23
2/23/2013	1015	1.252	0.365	0.579	96.598	1.516	0.164	0.034	0.033	0.013	0.008	0.017	1334	-23
2/22/2013	1015	1.241	0.361	0.579	96.585	1.551	0.163	0.032	0.032	0.012	0.007	0.017	1334	-23
2/21/2013	1016	1.27	0.354	0.58	96.508	1.588	0.173	0.034	0.035	0.013	0.008	0.017	1334	-23
2/20/2013	1016	1.246	0.356	0.58	96.518	1.586	0.18	0.037	0.037	0.014	0.009	0.018	1334	-22
2/19/2013	1015	1.237	0.359	0.579	96.598	1.525	0.172	0.035	0.035	0.013	0.008	0.018	1334	-22
2/18/2013	1016	1.211	0.366	0.579	96.564	1.585	0.171	0.033	0.034	0.013	0.008	0.016	1335	-24
2/17/2013	1016	1.232	0.359	0.579	96.573	1.547	0.178	0.036	0.036	0.014	0.009	0.017	1335	-23
2/16/2013	1014	1.252	0.352	0.579	96.716	1.428	0.152	0.032	0.031	0.013	0.008	0.016	1333	-25
2/15/2013	1014	1.254	0.345	0.579	96.677	1.477	0.151	0.031	0.03	0.012	0.007	0.016	1333	-25
2/14/2013	1014	1.261	0.344	0.579	96.709	1.433	0.153	0.032	0.031	0.012	0.008	0.017	1333	-24
2/13/2013	1015	1.233	0.32	0.579	96.738	1.436	0.164	0.035	0.034	0.013	0.008	0.018	1335	-21
2/12/2013	1016	1.217	0.322	0.579	96.714	1.461	0.169	0.037	0.036	0.014	0.009	0.02	1335	-19
2/11/2013	1016	1.22	0.326	0.579	96.633	1.532	0.174	0.037	0.036	0.014	0.009	0.019	1335	-20
2/10/2013	1017	1.22	0.322	0.579	96.598	1.568	0.178	0.037	0.036	0.014	0.009	0.019	1336	-21
2/9/2013	1015	1.244	0.32	0.579	96.749	1.412	0.163	0.035	0.035	0.014	0.009	0.019	1334	-20
2/8/2013	1016	1.182	0.327	0.579	96.727	1.469	0.172	0.038	0.038	0.016	0.01	0.022	1336	-17
2/7/2013	1015	1.229	0.31	0.579	96.745	1.436	0.168	0.036	0.036	0.014	0.009	0.017	1335	-22
2/6/2013	1013	1.261	0.327	0.578	96.792	1.391	0.143	0.027	0.028	0.011	0.007	0.014	1333	-27
2/5/2013	1014	1.296	0.332	0.579	96.647	1.458	0.166	0.032	0.033	0.012	0.008	0.016	1333	-24
2/4/2013	1013	1.286	0.327	0.578	96.769	1.385	0.145	0.027	0.028	0.011	0.007	0.014	1332	-27
2/3/2013	1013	1.268	0.327	0.578	96.879	1.303	0.137	0.027	0.027	0.011	0.007	0.015	1332	-27
2/2/2013	1015	1.212	0.322	0.578	96.787	1.415	0.161	0.034	0.032	0.013	0.008	0.016	1335	-24
2/1/2013	1015	1.255	0.32	0.579	96.71	1.451	0.161	0.033	0.032	0.013	0.008	0.017	1334	-23
1/31/2013	1015	1.324	0.348	0.58	96.505	1.544	0.17	0.035	0.034	0.014	0.008	0.018	1332	-22
1/30/2013	1017	1.264	0.356	0.58	96.447	1.615	0.192	0.04	0.039	0.016	0.01	0.021	1334	-17
1/29/2013	1018	1.253	0.356	0.581	96.316	1.719	0.216	0.044	0.044	0.017	0.011	0.023	1336	-15
1/28/2013	1018	1.223	0.36	0.581	96.419	1.63	0.221	0.047	0.047	0.019	0.012	0.024	1336	-14
1/27/2013	1017	1.199	0.362	0.58	96.563	1.529	0.207	0.044	0.044	0.018	0.011	0.022	1336	-16
1/26/2013	1017	1.191	0.345	0.579	96.652	1.483	0.197	0.042	0.042	0.017	0.011	0.022	1336	-17
1/25/2013	1018	1.21	0.346	0.58	96.508	1.585	0.211	0.045	0.044	0.018	0.011	0.022	1336	-16
1/24/2013	1016	1.241	0.352	0.58	96.58	1.535	0.176	0.038	0.036	0.015	0.009	0.02	1334	-19
1/23/2013	1015	1.247	0.347	0.579	96.62	1.5	0.171	0.037	0.035	0.015	0.009	0.02	1334	-19
1/22/2013	1016	1.253	0.34	0.58	96.541	1.568	0.18	0.038	0.037	0.015	0.009	0.019	1335	-20

Florida Gas makes no warranty or representation whatsoever as to the accuracy of the information provided.

This information is provided on a best efforts basis and is an estimate.

Stream History

Gas Day	Brooker 24" Stream	
	Sulfur Avg ppm	Avg Grains/hcf
03/12/2013	1.566	0.098
03/11/2013	1.738	0.109
03/10/2013	1.744	0.109
03/09/2013	1.536	0.096
03/08/2013	1.450	0.091
03/07/2013	1.225	0.077
03/06/2013	1.026	0.064
03/05/2013	1.830	0.114
03/04/2013	1.632	0.102
03/03/2013	1.001	0.063
03/02/2013	0.909	0.057
03/01/2013	1.145	0.072
02/28/2013	1.511	0.094
02/27/2013	1.740	0.109
02/26/2013	2.107	0.132
02/25/2013	2.163	0.135
02/24/2013	2.326	0.145
02/23/2013	2.452	0.153
02/22/2013	2.365	0.148
02/21/2013	1.905	0.119
02/20/2013	1.593	0.100
02/19/2013	2.205	0.138
02/18/2013	1.239	0.077
02/17/2013	0.749	0.047
02/16/2013	0.883	0.055
02/15/2013	1.598	0.100
02/14/2013	0.924	0.058
02/13/2013	0.028	0.002
02/12/2013	0.305	0.019
02/11/2013	3.500	0.219
02/10/2013	2.444	0.153
02/09/2013	2.139	0.134
02/08/2013	2.529	0.158
02/07/2013	2.950	0.184
02/06/2013	2.552	0.159
02/05/2013	2.058	0.129
02/04/2013	1.778	0.111
02/03/2013	1.926	0.120
02/02/2013	1.904	0.119
02/01/2013	1.494	0.093
01/31/2013	1.419	0.089
01/30/2013	2.409	0.151
01/29/2013	2.583	0.161
01/28/2013	2.584	0.162
01/27/2013	3.174	0.198
01/26/2013	3.352	0.209
01/25/2013	3.384	0.212

Gas Day	Brooker 24" Stream	
	Sulfur Avg ppm	Avg Grains/hcf
01/24/2013	4.493	0.281
01/23/2013	2.906	0.182
01/22/2013	2.777	0.174
01/21/2013	3.607	0.225
01/20/2013	3.933	0.246
01/19/2013	3.452	0.216
01/18/2013	2.886	0.180
01/17/2013	2.941	0.184
01/16/2013	4.107	0.257
01/15/2013	4.244	0.265
01/14/2013	4.373	0.273
01/13/2013	4.471	0.279
01/12/2013	4.515	0.282
01/11/2013	4.542	0.284
01/10/2013	3.325	0.208
01/09/2013	0.024	0.002
01/08/2013	0.031	0.002
01/07/2013	2.631	0.164
01/06/2013	2.857	0.179
01/05/2013	2.983	0.186
01/04/2013	2.510	0.157
01/03/2013	2.744	0.172
01/02/2013	3.475	0.217
01/01/2013	3.460	0.216
12/31/2012	2.799	0.175
12/30/2012	2.143	0.134
12/29/2012	2.916	0.182
12/28/2012	2.879	0.180
12/27/2012	2.318	0.145
12/26/2012	2.895	0.181
12/25/2012	3.471	0.217
12/24/2012	3.022	0.189
12/23/2012	2.712	0.170
12/22/2012	2.426	0.152
12/21/2012	0.720	0.045
12/20/2012	1.100	0.069
12/19/2012	0.976	0.061
12/18/2012	1.012	0.063
12/17/2012	1.485	0.093
12/16/2012	1.570	0.098
12/15/2012	2.400	0.150
12/14/2012	1.468	0.092
12/13/2012	1.945	0.122
12/12/2012	1.891	0.118
12/11/2012	1.324	0.083
12/10/2012	1.276	0.080
12/09/2012	1.184	0.074
12/08/2012	0.957	0.060

ATTACHMENT JEA-EU1-I4

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT JEA-EU1-I4 PROCEDURES FOR STARTUP AND SHUTDOWN

The startup and shutdown procedures and the operation and maintenance plans for several emissions units are presented in Appendix Q of Title V Permit No. 0310045-038-AV.

EUs 027 and 026 (NGS – CFB Nos. 1 and 2)

Startup and Shutdown Procedures

The CFBs are started and shut down in the most efficient manner possible taking into account manufacturer recommendations, personnel and equipment safety and limitations, operating experience, and other factors such as fuel type and process variables.

EU 003 (NGS – Boiler No. 3)

Startup and Shutdown Plans – O&M Procedures

JEA will maintain and operate Boiler No. 3 efficiently to maximum performance to minimize environmental emissions. JEA will take necessary actions to ensure the unit does not exceed permitted limits, and will remove a unit from service if required.

NGS Boiler No. 3 is started-up on natural gas. L.P. gas is used as ignitor fuel source. After startup the unit is fueled by natural gas and/or #6 fuel oil, depending upon availability.

All JEA units are operated under the boiler, turbine/generator, and operational guidelines as furnished by the manufacturers and JEA internal guidelines and procedures.

Boiler equipment is maintained under a preventative maintenance (P.M.) routine schedule as set forth in JEA's internal P.M. program. Some examples of boiler equipment P.M.'s are: weekly burner cleaning, daily sootblowing, scheduled boiler washings, and continuous boiler emission monitoring. Other maintenance is performed on an as needed basis. When excessive emission conditions occur, the control room operator takes immediate corrective action.

When a unit shut down is required or unit trip occurs, the unit is brought down under established manufacturer and JEA operational procedures.

EU 006 through 009 (NGS – Combustion Turbines No. 3, No. 4, No. 5 and No. 6)

O&M Plans – Startup and Shutdown Plans

JEA will maintain and operate Combustion Turbines (CTs) No.3, No.4, No.5 and No.6 efficiently to maximum performance to minimize environmental emissions. JEA will take necessary actions to ensure the units do not exceed permitted limits, and will remove a unit from service if required.

The NGS CTs are started and operated on No. 2 fuel oil.

All JEA units are operated under the boiler, turbine/generator, and operational guidelines as furnished by the manufacturers and JEA internal guidelines and procedures. Combustion turbine equipment is maintained under a preventative maintenance routine schedule as set forth in JEA's internal P.M. program.

When excessive emission conditions occur, the control room operator takes immediate corrective action.

When a unit shut down is required or unit trip occurs, the unit is brought down under established manufacturer and JEA operational procedures.

EU 016 and 017 (SJRPP – Boiler No. 1 and Boiler No. 2)

Startup and Shutdown Plans

Unit Startup

The SJRPP units utilize Electrostatic Precipitators for opacity control, Wet Limestone Scrubbers for sulfur dioxide control and staged combustion technologies for control of nitrogen oxides.

During startup, the SJRPP units initially utilize No. 2 Fuel Oil ignitors. Once steam quality and turbine conditions are sufficient, coal is introduced to the furnace and oil ignitors remain in service for flame stabilization at low burner capacities. Opacity is reduced to less than 20% through partial energization of precipitator fields after coal is introduced to the furnace and the precipitator reaches 200°F. After opacity is less than 20%, scrubber module(s) are placed in service to facilitate sulfur dioxide removal. After the precipitator has thermally soaked for two hours in excess of 200°F, additional precipitator fields may be energized to further reduce opacity and particulate burden to the scrubber.

Excessive NO_x formation does not typically occur at low heat input levels associated with unit startup.

Unit Shut Down

Upon a unit shut-down or unit trip, automatic controls will abruptly isolate all fuel sources from the furnace, de-energize the precipitator and open the scrubber bypass. No further intentional combustion can occur until the furnace is sufficiently purged with air. The purging requirement is a requisite for the startup procedure to begin anew.

ATTACHMENT JEA-EU1-I5
OPERATION AND MAINTENANCE PLAN

ATTACHMENT JEA-EU1-I5

OPERATION AND MAINTENANCE PLAN FOR PM RACT REQUIREMENTS

Following is a list of activities to be accomplished for the control of particulate emissions from units in or impacting the Duval County maintenance areas. These schedules apply to each on-line unit at the NGS, SJRPP, and the ST facility.

Daily:

1. Check and clean burners (renew tips as necessary) daily.
2. Conduct one complete soot-blowing cycle (or as needed).
3. Maintain optimum fuel oil temperature and pressure at all times.

Weekly:

1. Clean low pressure fuel oil strainers (more frequently if required).
2. Clean other fuel oil strainers as needed by monitoring the pressure drop.

Annually:

1. Clean the boiler and inspect baffles. Inspect the:
 - (a) wind box
 - (b) registers
 - (c) diffusers
 - (d) refractory throat
 - (e) scanners
 - (f) ignitors
2. Adjust the air registers for optimum flame pattern with assistance from Engineering Services.
3. Replace burner tips (more frequently if required).

ATTACHMENT JEA-EU1-IV1
IDENTIFICATION OF APPLICABLE REQUIREMENTS

Jacksonville Electric Authority
**Northside Generating Station(NGS)/
St. Johns River Power Park (SJRPP)/
Separations Technology, LLC (ST) Facility**

Facility ID No. 0310045
Duval County

Title V Air Operation Permit Revision

Permit No. 0310045-038-AV

(3rd Revision of Title V Air Operation Permit No. 0310045-020-AV)



Permitting Authority:

State of Florida Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blair Stone Road, Mail Station #5505
Tallahassee, Florida 32399-2400

Telephone: (850) 717-9000, Fax: (850) 717-9097

Compliance Authority:

City of Jacksonville/Duval County Neighborhoods Department
Environmental Quality Division, Air Quality Branch

Ed Ball Building
214 North Hogan Street, 7th Floor
Jacksonville, Florida 32202

Telephone: (904) 255-7100, Fax: (904) 588-0518

Title V Air Operation Permit Revision
Permit No. 0310045-030-AV

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Appendix 40 CFR 60 Subpart OOO.

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Appendix TR, Facility-wide Testing Requirements.

Appendix TV, Title V General Conditions.

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**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

BOB MARTINEZ CENTER
2600 BLAIRSTONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

JENNIFER CARROLL
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

PERMITTEE:

JEA
21 West Church Street
Jacksonville, Florida 32202

Permit No. 0310045-038-AV
NGS/SJRPP/ST Facility
Facility ID No. 0310045
Title V Air Operation Permit Revision

The purpose of this permit is for the revision of the Title V air operation permit for the above referenced facility is to incorporate Permit No. 0310045-037-AC (PSD-FL-265F) to remove the conditions regarding the mercury Continuous Emission Monitoring System requirements and allow the firing of up to 240 tons per day of biomass for each of the Northside Generating Station Boiler Nos. 1 and 2; and, revise the description of St. Johns River Power Park Units 1 and 2 to allow the operation of one scrubber tower during low load operations. The existing NGS/SJRPP/ST facility is located at 4377 Heckscher Drive, Jacksonville, in Duval County. UTM Coordinates are: Zone 17, 446.90 km East and 3359.150 km North. Latitude is: 30° 21' 52" North; and, Longitude is: 81° 37' 25" West.

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

Effective Date: December 7, 2012
Renewal Application Due Date: May 20, 2013
Expiration Date: December 31, 2013

Executed in Tallahassee, Florida.
(Electronic Signature)

for Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

JFK/sa/ejs

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

The Northside Generating Station (NGS) and St. Johns River Power Park (SJRPP) facilities and the Separations Technology, LLC (ST) facility are considered to be a single air emission “facility” for air permitting purposes.

NGS and SJRPP:

These operations consist of 5 boilers, NGS existing Boiler No. 3, which is a pre-NSPS boiler with a nominal rating of 564 MW and fired by natural gas, landfill gas, No. 6 residual fuel oil, and used oil; Boilers Nos. 1 and 2 and Auxiliary Boiler No. 1 have been permanently shutdown; NGS CFB Boilers Nos. 1 and 2, which are two coal, coal coated with latex, petroleum coke, and landfill gas fired circulating fluidized bed (CFB) boilers; SJRPP Boilers Nos. 1 and 2, which are two fossil fuel-fired steam generators (boilers) fired with pulverized coal, a blend of petroleum coke and coal, natural gas, new No. 2 distillate fuel oil (startup and low-load operation), and “on-specification” used oil; and, four pre-NSPS distillate fuel oil fired combustion turbines with a nominal rating of 52.5 MWs each, NGS Nos. 3, 4, 5 and 6. Emissions from the NGS Boiler No. 3 are uncontrolled. Emissions from the NGS CTs Nos. 3, 4, 5 and 6, are controlled by firing low sulfur fuel oil. Each NGS CFB boiler is equipped with a selective non-catalytic reduction (SNCR) system to reduce nitrogen oxides (NOx) emissions, limestone injection to reduce sulfur dioxide (SO₂) emissions, fabric filter to reduce particulate matter (PM and PM₁₀) emissions, while maximizing combustion efficiency and minimizing NOx formation to limit carbon monoxide (CO) and volatile organic compound (VOC) emissions. Emissions from the SJRPP Boilers Nos. 1 and 2 are controlled with an electrostatic precipitator, a limestone scrubber, and low-NOx burners. Permit No. 0310045-017-AC authorized the installation of selective catalytic reduction (SCR) systems and ammonia injection systems on the existing SJRPP Boiler Nos. 1 and 2; the Department did not require the installation of this equipment nor does the Department require its operation. The SJRPP and NGS facilities also include coal, petroleum coke, limestone and fly ash handling activities, of which various control devices, control strategies, and control techniques are required.

The material handling and storage operations will process ash, limestone, coal, coal coated with latex, and petroleum coke to support the operation of CFB Boilers Nos. 1 and 2. Each materials handling and storage operation will employ one or more control strategies to limit emissions of particulate matter to meet specific emission limitations and/or visible emissions limits. The control strategies include the use of best operating/design practices, total or partial enclosures, conditioned materials, wet suppression, water sprays, and dust collection systems.

ST:

ST has constructed, owns and operates a fly ash processing system on a portion of leased property at the JEA SJRPP facility in Duval County, Florida. The purpose of the equipment is to remove the residual carbon and ammonia from the JEA SJRPP fly ash leaving a saleable product. As a result, environmental benefits will include a 255,000 ton reduction in the fly ash currently sent to landfill by the JEA SJRPP each year and an overall reduction in the ammonia releases with the recovery and subsequent recycle of ammonia removed from the fly ash.

The fly ash processing system includes two fly ash receiving bins, a carbon separation unit, a clean-up vacuum, a fly ash surge bin, a mineral additive storage bin, and a gas-fired dryer. The particulate emissions generated from handling of the fly ash are collected from each source using pulse jet fabric filters. ST’s triboelectric carbon separation technology partitions fly ash into mineral-rich and carbon-rich fractions. The mineral-rich fly ash can then be sold as a usable product. The carbon-rich fly ash is returned to the JEA SJRPP fly ash storage silos for eventual disposal at the onsite landfill.

The two-step beneficiation process consists of (1) removal of the residual carbon from the fly ash using ST’s patented electrostatic separation technology, and (2) removal of residual ammonia from the fly ash using ST’s

SECTION I. FACILITY INFORMATION.

ammonia removal technology (patent pending). In addition to residual carbon, the fly ash at the JEA SJRPP also contains trace amounts of ammonia that makes it unsuitable as a cement replacement. To solve this problem, ST installed an ammonia removal process. The recovered ammonia is subsequently returned to the JEA SJRPP for recycle.

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

Subsection B. Summary of Emissions Units.

E.U. No.	Brief Description
<i>Regulated Emissions Units</i>	
-003	NGS: Boiler No. 3
-006	NGS: Combustion Turbine No. 3
-007	NGS: Combustion Turbine No. 4
-008	NGS: Combustion Turbine No. 5
-009	NGS: Combustion Turbine No. 6
-016	SJRPP: Boiler No. 1
-017	SJRPP: Boiler No. 2
-022	SJRPP: Bottom Ash, Fly Ash and Gypsum Handling and Storage Operations
-023	SJRPP: Fuel and Limestone Handling and Storage Operations
-024	SJRPP: Cooling Towers (2)
-026	NGS: Circulating Fluidized Bed Boiler No. 2
-027	NGS: Circulating Fluidized Bed Boiler No. 1
-028	NGS: Materials Handling and Storage Operations
-029	NGS: Crusher House/Building Baghouse Exhaust (DC1)
-031	NGS: Fuel Silos Dust Collectors (DC2 and DC3)
-033	NGS: Limestone Dryer/Mills Building
-034	NGS: Limestone Prep Building Dust Collectors
-035	NGS: Limestone Silos Bin Vent Filters
-036	NGS: Fly Ash Transport Blower Discharge
-037	NGS: Fly Ash Silos Bin Vents
-038	NGS: Bed Ash Silos Bin Vents
-042	NGS: AQCS Pebble Lime Silo Bin Vent
-044	ST: Separator A Filter - Receiver Vent
-045	ST: Separator B Filter - Receiver Vent
-046	ST: Separator Dust Collector Vent
-047	ST: Clean-up Vacuum Vent
-048	ST: Fly Ash Surge Bin Vent
-049	ST: Mineral Additive Storage Bin Vent
-050	ST: Gas-fired Dryer Stack
-051	NGS: Fly Ash Slurry Mix System Vents
-052	NGS: Bed Ash Slurry Mix System Vents
-053	NGS: Bed Ash Surge Hopper Bin Vents

E.U. No.	Brief Description
<i>Unregulated Emissions Units/Activities</i>	
<i>The following Storage Tanks are located at the Northside Generating Station (NGS)</i>	
-010	Bunker C Storage Tanks

SECTION I. FACILITY INFORMATION.

-010	Storage Tank: 4,578,000 gallons - Bunker C
-010	Storage Tank: 4,578,000 gallons - Bunker C
-010	Storage Tank: 4,578,000 gallons - Bunker C
-010	Storage Tank: 11,256,000 gallons - Bunker C
-010	Storage Tank: 11,256,000 gallons - Bunker C
-010	Storage Tank: 11,256,000 gallons - Bunker C
-011	Diesel Storage Tanks
-011	Storage Tank #10: 168,000 gallons - Diesel
-011	Storage Tank #11: 4,200,000 gallons - Diesel
-011	Storage Tank #12: 4,200,000 gallons - Diesel
-012	Diesel Storage Tanks
-012	Storage Tank #13: 4,200,000 gallons - Diesel
-012	Storage Tank #14: 4,200,000 gallons - Diesel
-015	Waste Oil Storage Tanks
-015	Storage Tank: 750 gallons - Waste Oil Storage (Unit 1)
-015	Storage Tank: 1,000 gallons - Waste Oil Storage (Unit 2)
-015	Storage Tank: 575 gallons - Waste Oil Storage (Unit 3)
<i>The following Storage Tanks are located at the St. Johns River Power Park (SJRPP)</i>	
-019	Storage Tank: 636,106 gallons - Diesel
-020	Storage Tank: 10,069 gallons - Gasoline
-021	Storage Tank - Emergency Fire Pump: 1,123 gallons - Diesel
-021	Storage Tank - AQCS Emergency Generator Day Tank: 561 gallons - Diesel
-021	Storage Tank - Coal/Limestone Fuel Storage: 10,069 gallons - Diesel
-021	Storage Tank - Ash Landfill Fuel Storage: 10,069 gallons - Diesel
-021	Storage Tank - Power Block Emergency Generator Fuel Storage : 4,015 gallons - Diesel
-021	Storage Tank: 3,000 gallons - Diesel

Subsection C. Applicable Regulations.

Based on the Title V Air Operation Renewal application received July 3, 2008, this facility is a major source of hazardous air pollutants (HAP). This facility is classified as a PSD major facility. A summary of important applicable regulations is shown in the following table.

Regulation	E.U. ID No(s).
Rule 62-296.405(1), F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input	-003
Rule 62-296.702, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter: Fossil Fuel Steam Generators	-003
Acid Rain, Phase II	-003
Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR)	-003
Rule 62-210.300, F.A.C., Permits Required	-006, -007, -008 & -009
Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR)	-006, -007, -008 & -009
40 CFR 60, Subpart A, Standards of Performance for New Stationary Sources (NSPS) General Provisions	-016 & -017
NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978	-016 & -017

SECTION I. FACILITY INFORMATION.

Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD)	-016 & -017
Acid Rain, Phase II and Phase I	-016 & -017
Compliance Assurance Monitoring (CAM)	-016 & -017
Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR)	-016 & -017
40 CFR 60, Subpart A, Standards of Performance for New Stationary Sources (NSPS) General Provisions	-023
NSPS - 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants	-023
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD)	-023
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD)	-022
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD)	-024
40 CFR 60, Subpart A, Standards of Performance for New Stationary Sources (NSPS) General Provisions	-026 & -027
NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978	-026 & -027
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD)	-026 & -027
Acid Rain, Phase II and Phase I	-026 & -027
Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR)	-026 & -027
Compliance Assurance Monitoring (CAM)	-026 & -027
40 CFR 60, Subpart A, Standards of Performance for New Stationary Sources (NSPS) General Provisions	-029 & -031
NSPS - 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants (coal handling at NGS, excluding open storage piles)	-029 & -031
40 CFR 60, Subpart A, Standards of Performance for New Stationary Sources (NSPS) General Provisions	-033, -034 & -035
Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (limestone handling at NGS, except for open storage piles and truck unloading)	-033, -034 & -035
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD)	See Subsection III.H.
Rule 62-296.711, F.A.C., Reasonable Available Control Technology (RACT) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations	See Subsection III.H.
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD)	-044 - -050
Rule 62-296.711, F.A.C., Reasonable Available Control Technology - Materials Handling, Sizing, Screening, Crushing and Grinding Operations	-044 - -050
Rule 62-296.712, F.A.C., Reasonable Available Control Technology (RACT) - Miscellaneous Manufacturing Process Operations	-044 - -050

SECTION II. FACILITY-WIDE CONDITIONS.

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section V., Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Not federally enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An “objectionable odor” means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.; and, Jacksonville Environmental Protection Board (JEPB) Rule 2, Part IX]

FW2.1. Not federally enforceable. Odor Nuisance. Pursuant to City of Jacksonville Ordinance Code (JOC) Chapter 376, any facility that causes or contributes to the emission of objectionable odors which results in the City of Jacksonville Environmental Resource Management Department’s (ERMD) Environmental Quality Division (EQD) receiving and validating complaints from five (5) or more different households within a 90 day period and can be cited for objectionable odors. [JOC Chapter 376]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. “Nothing is deemed necessary and ordered at this time.” [Rule 62-296.320(1)(a), F.A.C.; and, Part X, Rule 2.1001, JEPB]

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1., F.A.C.; and, Part X, Rule 2.1001, JEPB]

FW5. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include: chemical or water application to unpaved roads or unpaved yard areas; paving and maintenance of roads, parking areas and plant grounds; landscaping and planting of vegetation; regular mowing of grass and care of vegetation; limiting access to plant property by unnecessary vehicles; storage of bagged chemical products in weather-tight buildings (except for fertilizer); prompt cleanup of spilled powdered chemical products; confining abrasive blasting where possible; and other techniques, as necessary. Also, for the solid waste disposal area, wetting agents shall be applied as needed. [Rule 62-296.320(4)(c), F.A.C.; PSD-FL-010 and PA 81-13; and, 0310045-003-AC/PSD-FL-265; and, proposed by applicant in Title V air operation permit renewal application received July 3, 2008.]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements, for additional details.

FW6. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by May 1, 2009 and April 1st of each year, thereafter. [Rule 62-210.370(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for

SECTION II. FACILITY-WIDE CONDITIONS.

download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <http://www.dep.state.fl.us/Air/permitting/tvfee.htm>. [Rule 62-213.205, F.A.C.]

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

FW9. Prevention of Accidental Releases (Section 112(r) of CAA).

- a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.
- b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Department of Community Affairs (DCA), as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
- c. The owner or operator shall submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.
- d. Any required written reports, notifications, certifications, and data required to be sent to the DCA, should be sent to: Department of Community Affairs, Division of Emergency Management, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2100, Telephone: (850) 413-9921, Fax: (850) 488-1739.
- e. Any Risk Management Plans, original submittals, revisions, or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 1515, Lanham-Seabrook, MD 20703-1515, Telephone: (301) 429-5018.

Any required reports to be sent to the National Response Center, should be sent to: National Response Center, EPA Office of Solid Waste and Emergency Response, USEPA (5305 W), 401 M Street SW, Washington, D.C. 20460, Telephone: (800) 424-8802.

Send the required annual registration fee using approved forms made payable to: Cashier, Department of Community Affairs, State Emergency Response Commission, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2149

[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

FW10. Clean Air Interstate Rule (CAIR) Applicable Units. This facility contains emissions units that are subject to CAIR. On July 11, 2008, the U.S. Court of Appeals for the District of Columbia recommended vacatur of the Clean Air Interstate Rule. Because of this decision, the applicable CAIR requirements that were identified in the renewal application are not being included in the permit at this time. If, and at such time that, CAIR is ultimately upheld, you must begin complying with the CAIR program requirements contained in the renewal application and the Title V permit must be revised accordingly. [Rules 62-213.440 and 62-296.470, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -003

The specific conditions in this section apply to the following emissions unit:

E.U. ID No.	Brief Description
-003	NGS Boiler No. 3

NGS Boiler No. 3 is a fossil fuel-fired steam generator with a nominal nameplate rating of 563.7 megawatts (electric). The emissions unit will be allowed to fire new No. 6 residual fuel oil, natural gas, liquefied petroleum (LP) gas, "on-specification" used oil, landfill gas, and a blend of fuel oil and natural gas and/or landfill gas. The maximum heat inputs are (1) 5033 MMBtu per hour when firing fuel oil; (2) 5260 MMBtu per hour when firing natural gas or natural/landfill gases; or (3) 5033 - 5260 MMBtu per hour when firing a combination of fuel oil and natural gas or natural/landfill gases, respectively. LP gas is used as the igniter fuel when natural gas is not available. Fuel additives, typically of a magnesium oxide, hydroxide or sulfonate, or calcium nitrate origin, are used to enhance combustion and/or control acidity. Pollutant emissions from this emissions unit are uncontrolled. The combustion gases exhaust through a stack of 300 feet. NGS Boiler No. 3 began commercial operation in 1977.

{Permitting notes: This emissions unit is regulated under Acid Rain, Phase II; Rule 62-296.405(1), F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input; Rule 62-296.702, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter: Fossil Fuel Steam Generators; AC16-85951; 0310045-012-AC; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR).}

A.1. Permitted Capacity. The maximum operation heat input rates, based on the higher heating value (HHV) of the fuel, are as follows:

E.U. ID No.	MMBtu/hr Heat Input (HHV)	Fuel Type
-003	5260	Natural Gas
	5260	Landfill Gas
	5033	New No. 6 Fuel Oil
	5033	"On-specification" Used Oil
	5033-5260	Fuel Oil and Natural Gas
	5033-5260	Fuel Oil and Natural/Landfill Gases

Note: When a blend of fuel oil and natural and/or landfill gas is fired, the heat input is prorated based on the percent heat input of each fuel. [Rules 62-4.160(2), 62-210.200 (Definitions - Potential to Emit (PTE)); and 62-296.405(1), F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each emissions unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limitations and to aid in determining future rule applicability.}

A.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation - Fuels. The only fuels allowed to be burned are natural gas, LP gas, landfill gas, new No. 6 fuel oil, "on-specification" used oil, and a blend of fuel oil and natural gas and/or landfill gas. "On-specification" used oil containing any quantifiable levels of polychlorinated biphenyls (PCB) can only be fired when the emissions unit is at normal operating temperatures. LP gas is used as the igniter fuel when natural gas is not available. [Rule 62-213.410, F.A.C.; 40 CFR 271.20(e)(3); AC16-85951; BACT; applicant request dated June 14, 1996; and, 0310045-012-AC]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -003

- A.4. Hours of Operation.** This emissions unit may operate continuously (8760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions Nos. **A.5.** thru **A.9.**, and **A.11.**, are based on the specified averaging time of the applicable test method.

- A.5. Visible Emissions.** For Boiler No. 3, visible emissions shall not exceed 40 percent opacity. Emissions units governed by this visible emissions limit shall compliance test for visible emissions annually and as otherwise required by Chapter 62-297, F.A.C. [Rules 62-296.405(1)(a) and 62-296.702(2)(b), F.A.C.; and, Part X, Rule 2.1001, JEPB]
- A.6. Visible Emissions – Soot Blowing and Load Change.** Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. [Rule 62-210.700(3), F.A.C.; and, Part III, Rule 2.301, JEPB]
- A.7. Particulate Matter.** Particulate matter emissions shall not exceed 0.1 pound per million Btu heat input, as measured by applicable compliance methods. [Rules 62-296.405(1)(b) and 62-296.702(2)(a), F.A.C.; and, Part X, Rule 2.1001, JEPB]
- A.8. Particulate Matter - Soot Blowing and Load Change.** Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [Rule 62-210.700(3), F.A.C.; and, Part III, Rule 2.301, JEPB]
- A.9. Sulfur Dioxide.** SO₂ emissions shall not exceed 1.98 pounds per million Btu heat input, as measured by applicable compliance methods. Any calculations or methods used to demonstrate compliance shall be based on the total heat input from all fossil fuels, including natural gas, and the sulfur from all fuels fired. [Rules 62-213.440 and 62-296.405(1)(c)1.a., F.A.C.; and, Part X, Rule 2.1001, JEPB]
- A.10. Sulfur Dioxide - Sulfur Content.** For Boiler No. 3, the sulfur content of the as-fired No. 6 fuel oil shall not exceed 1.8 percent, by weight, if the SO₂ continuous emissions monitor system is temporarily inoperative. [Rule 62-296.405(1)(e)3., F.A.C.; and, Part X, Rule 2.1001, JEPB]
- A.11. Nitrogen Oxides (expressed as NO₂).** For Boiler No. 3, nitrogen oxides shall not exceed 0.30 lb/MMBtu heat input, as measured by applicable compliance methods. [Rule 62-296.405(1)(d)1., F.A.C.; and, Part X, Rule 2.1001, JEPB]
- A.12. On-Specification Used Oil.** Burning of on-specification used oil is allowed in this emissions unit in accordance with all other conditions of this permit and the following conditions:
- a. *On-Specification Used Oil Emissions Limitations.* This emissions unit is permitted to burn on-specification used oil, which contains a Polychlorinated Biphenyl (PCB) concentration of less than 50 parts per million (ppm). On-specification used oil is defined as used oil that meets the specifications of 40 CFR 279 - Standards for the Management of Used Oil, listed below. "Off-specification" used oil shall

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -003

not be burned. Used oil which fails to comply with any of these specification levels is considered "off-specification" used oil.

CONSTITUENT/PROPERTY	ALLOWABLE LEVEL
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash point	100 degrees F minimum

- b. *Quantity Limitation.* This emissions unit is permitted to burn "on-specification" used oil that is generated by the JEA in the production and distribution of electricity, not to exceed 1,000,000 gallons during any calendar year.
- c. *PCB Limitation.* Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
- d. *Operational Requirements.* On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.
- e. *Testing Requirements.* For each batch of used oil to be burned, the owner or operator must be able to demonstrate that the used oil qualifies as on-specification used oil and that the PCB content is less than 50 ppm.

The requirements of this demonstration are governed by the following federal regulations:

- (1) Analysis of used oil fuel. A generator, transporter, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of Sec. 279.11 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications. [40 CFR 279.72(a)]
- (2) Testing of used oil fuel. Used oil to be burned for energy recovery is presumed to contain quantifiable levels (2 ppm) of PCB unless the marketer obtains analyses (testing) or other information that the used oil fuel does not contain quantifiable levels of PCBs.
 - (a) The person who first claims that a used oil fuel does not contain quantifiable level (2 ppm) PCB must obtain analyses or other information to support that claim.
 - (b) Testing to determine the PCB concentration in used oil may be conducted on individual samples, or in accordance with the testing procedures described in Sec. 761.60(g)(2). However, for purposes of this part, if any PCBs at a concentration of 50 ppm or greater have been added to the container or equipment, then the total container contents must be considered as having a PCB concentration of 50 ppm or greater for purposes of complying with the disposal requirements of this part.
 - (c) Other information documenting that the used oil fuel does not contain quantifiable levels (2 ppm) of PCBs may consist of either personal, special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the oil contains no detectable PCBs.
[40 CFR 761.20(e)(2)]

When testing is required, the owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:

Arsenic, cadmium, chromium, lead, total halogens, flash point and PCBs.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -003

Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

- f. *Recordkeeping Requirements.* The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department:
- (1) The gallons of on-specification used oil placed into inventory to be burned and the gallons of on-specification used oil burned each month.
 - (2) Results of the analyses of each deposit of used oil, as required by the above conditions.
 - (3) Other information, besides testing, used to make a claim that the used oil meets the requirements of on-specification used oil or that the used oil contains less than 50 ppm of PCBs.

[40 CFR 279.72(b), 40 CFR 279.74(b) and 40 CFR 761.20(e)]

- g. *Reporting Requirements.* The owner or operator shall submit, with the Annual Operation Report form, the analytical results required above and the total amount of on-specification used oil placed into inventory to be burned and the total amount of on-specification used oil burned during the previous calendar year.

[Rule 62-4.070(3) and 62-213.440, F.A.C., 40 CFR 279 and 40 CFR 761, unless otherwise noted.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

- A.13. Excess Emissions From Malfunctions. Excess emissions resulting from malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]

- A.14. Best Operational Practices to Minimize Excess Emissions. The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in Appendix Q Protocol for Startup and Shutdown. [Rule 62-210.700(1), F.A.C. and Proposed by the Applicant in the Renewal Application]

- A.15. Excess Emissions From Startup and Shut Down. Excess emissions from existing fossil fuel steam generators resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.; and, Part III, Rule 2.301, JEPB]

- A.16. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Continuous Emissions Monitoring Requirements

- A.17. Sulfur Dioxide.

- a. For Boiler No. 3, the permittee elected to monitor emissions using a SO₂ continuous emissions monitoring system (CEMS).
- b. The CEMS shall be calibrated, operated and maintained in accordance with the quality assurance requirements of 40 CFR 75, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -003

demonstrated based on a 24-hour daily average. A Relative Accuracy Testing Audit (RATA) shall be performed no less than annually.

- c. In the event the CEMS becomes temporarily inoperable or interrupted, the fuels and the maximum fuel oil to natural gas firing ratio that can be used is that which was last used to demonstrate compliance prior to the loss of the CEMS, or the emissions units shall fuel switch and be fired with a fuel oil containing a maximum sulfur content of 1.8%, by weight, or less.
 - d. In the event of natural gas disruption and the emissions units have to fire 100% fuel oil, the emissions units shall be fired with a fuel oil containing a maximum sulfur content of 1.8%, by weight, or less.
- [Rules 62-213.440, 62-204.800, 62-296.405(1)(c)3., and 62-296.405(1)(f)1.b., F.A.C.]

A.18. Nitrogen Oxides. For Boiler No. 3, compliance with the nitrogen oxides (expressed as NO₂) limit of 0.30 lb/MMBtu shall be demonstrated by the following:

- a. Through the use of a CEMS installed, calibrated, operated and maintained in accordance with the quality assurance requirements of 40 CFR 60, Appendix F, and 40 CFR 75, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and demonstrated based on a 30-day rolling average.
- b. The performance specifications, location of the monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 CFR 51, Appendix P, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and 40 CFR 60, Appendix B, adopted by reference in Rule 62-204.800, F.A.C.

[Rules 62-296.405(1)(e)4. and 62-296.405(1)(f), F.A.C.; Part X, Rule 2.1001, JEPB; and, 40 CFR 60 & 75]

Test Methods and Procedures

A.19. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Methods 17, 5, 5B, or 5F	Methods for Determining Particulate Matter Emissions
EPA Method 19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
DEP Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

A.20. Annual Compliance Tests. Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), this emissions unit shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions and particulate matter emissions. [Rule 62-297.310(7), F.A.C.]

A.21. Compliance Tests Prior To Renewal. Prior to permit renewal, compliance tests shall be performed for the following pollutants: VE, PM, SO₂ and NO_x. The SO₂ and NO_x RATA test data may be used to demonstrate compliance with the test requirement, provided the testing requirements (notification, procedures & reporting) of Chapter 62-297, F.A.C. are met. [Rule 62-297.310(7)(a)3., F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -003

A.22. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

A.23. Visible Emissions.

- a. For Boiler No. 3, the test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C.
- b. The visible emissions test(s) required shall be conducted simultaneously with particulate matter testing and soot blowing and non-soot blowing operating modes.
- c. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.405(1)(e)1. & 5., F.A.C.; and, Part X, Rule 2.1001, JEPB]

A.24. DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

- a. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
- b. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:
 - (1) For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
 - (2) For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value. [Rule 62-297.401, F.A.C.; and, Part XI, Rule 2.1101, JEPB]

A.25. Particulate Matter.

- a. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 (with Orsat analysis) or 3A shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17.
- b. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rules 62-213.440, 62-296.405(1)(e)2. & 5., and 62-297.401, F.A.C.; Part X, Rule 2.1001, JEPB; and, Part XI, Rule 2.1101, JEPB]

A.26. Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -003

shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards.

- a. For Boiler No. 3, the permittee shall demonstrate compliance with the 1.98 lbs/MMBtu heat input standard by either using the above referenced EPA test methods, including if used during a RATA for the SO₂ CEMS, or, as an alternate sampling procedure authorized by permit, a sulfur analyses of the as-fired fuel oils and gaseous fuels while compliance testing for particulate matter and visible emissions.
- b. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- c. For monitoring purposes and in lieu of fuel sampling and analysis, the permittee shall operate an SO₂ CEMs. A RATA shall be conducted at least annually in accordance with 40 CFR 75.

[Rules 62-213.440, 62-296.405(1)(e)3. & 5., 62-296.405(1)(f)1.b. and 62-297.401, F.A.C.; Part V, Rule 2.501, JEPB; Part X, Rule 2.1001, JEPB; and, Part XI, Rule 2.1101, JEPB]

A.27. Fuel Sampling and Analysis. For Boiler No. 3, the following fuel sampling and analysis protocol shall be used if the permittee opts to demonstrate compliance with the sulfur dioxide standard using an alternate sampling procedure authorized by permit and conducted while performing a compliance test for particulate matter and visible emissions:

- a. Determine and record the as-fired fuel sulfur content, percent by weight, (1) for liquid fuels using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, to analyze a representative sample of the blended fuel oil following each fuel delivery, (2) for gaseous fuels using ASTM D 1072-80, or the latest edition (the permittee can default to the maximum sulfur content guaranteed by the supplier).
- b. Record hourly fuel totalizer readings with calculated hourly feed rates for each fuel fired, the ratio of fuel oil to gas if co-fired, the density of each fuel, and the percent sulfur content, by weight, of each fuel.
- c. The analyses of the No. 6 fuel oil, as received from the supplier, shall include the following:
 - (1) Density (ASTM D 1298-80 or the latest edition).
 - (2) Calorific heat value in Btu per pound (ASTM D 240-76 or the latest edition).
- d. The analyses of the gaseous fuels, as received from the supplier, shall include the following:
 - (1) Density (ASTM D1137-53, ASTM D1945-64, or the latest edition).
 - (2) Calorific heat value in Btu per cubic foot (ASTM D1137-53, ASTM D1945-64, ASTM D1826-77, or the latest edition).
- e. Utilize the above information in a., b., c. and d. to calculate the SO₂ emission rate.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.; and, 40 CFR 60. Appendix A]

A.28. Operating Conditions During Testing - Particulate Matter and Visible Emissions. Compliance tests for particulate matter and visible emissions during soot blowing and steady-state (non-soot blowing) operations shall be conducted at least once, annually, if liquid fuel is fired for more than 400 hours. All visible emissions tests shall be conducted concurrently with the particulate matter emissions tests. Testing shall be conducted as follows:

- a. **100% Fuel Oil Firing.** Particulate matter and visible emissions tests during soot blowing and steady-state operations shall be performed on each emissions unit while firing fuel oil containing a sulfur content equal to or less than 1.8%, by weight, except that such test shall not be required to be performed during any federal fiscal year that testing is performed in accordance with Specific Condition **A.28.b.**
- b. **Co-firing Fuel Oil with Gases.** If fuel oil containing a sulfur content greater than 1.8%, by weight, is co-fired with gases (i.e., natural gas, landfill gas, LP gas), then particulate matter and visible emissions tests during soot blowing and steady-state operations shall be performed as soon as practicable, but in no event more than 60 days from the day of first firing the higher percent sulfur fuel oil, while co-firing such fuel

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Subsection A. Emissions Unit -003

oil with the proportion of gas required to maintain SO₂ emissions between 90 to 100% of the SO₂ emissions limitation (1.62 to 1.98 lbs/MMBtu heat input, respectively). Following successful completion of such particulate matter and visible emissions testing, further particulate matter and visible emissions testing shall not be required during the remaining federal fiscal year unless fuel oil is fired containing a sulfur content greater than 0.20%, by weight, above the fuel oil sulfur content percent, by weight, that was fired during the most recent co-firing compliance tests. If fuel oil is co-fired containing a sulfur content greater than 0.20%, by weight, above the fuel oil sulfur content percent, by weight, that was fired during the most recent co-firing compliance tests for particulate matter and visible emissions, then additional particulate matter and visible emissions tests shall be performed as described above and as soon as practicable, but in no event more than 60 days from the day of first firing the higher sulfur percent fuel oil. Following successful completion of such particulate matter and visible emissions testing, further particulate matter and visible emissions testing shall not be required during the remaining federal fiscal year unless fuel oil is fired containing a sulfur content greater than 0.20%, by weight, above the fuel oil sulfur content percent, by weight, that was fired during the most recent co-firing compliance tests. If any additional particulate matter and visible emissions tests are imposed after completion of any required annual compliance tests, then the frequency testing base date shall be reset to 12-months after the date of completion of the last tests.

[Rules 62-4.070(3), 62-213.440, 62-296.405(1)(c)3. and 62-297.310(7)(a)9., F.A.C.; and, Part XI, Rule 2.1101, JEPB]

A.29. Annual VE Testing Not Required. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or
- b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year.

[Rule 62-297.310(7)(a)4., F.A.C.; and, Part XI, Rule 2.1101, JEPB]

A.30. Annual And Renewal PM Testing. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or
- b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year.

[Rules 62-297.310(7)(a)3. & 5., F.A.C.; Part XI, Rule 2.1101, JEPB; and, ASP Number 97-B-01.]

A.31. Used Oil Sampling. Compliance with the “on-specification” used oil requirements will be determined from a sample collected from each batch delivered for firing. [Rules 62-4.070 and 62-213.440; and, 40 CFR 279]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

A.32. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Quarterly Excess Emissions	Every 3 months (quarter)	A.33. & A.34.
Actual Emissions Reporting	Annually	A.39.

[Rule 62-296.405(1)(g), F.A.C.]

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Subsection A. Emissions Unit -003

- A.33. Notification of Excess Emissions.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD. [Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]
- A.34. Excess Emissions Reports.** For each calendar quarter, submit to the ERMD-EQD a written report of emissions in excess of emission limiting standards, as set forth in Rule 62-296.405(1), F.A.C., and any continuous emissions monitoring system outages. The nature and cause of the excess emissions shall be explained. The report shall be submitted within 30 calendar days following the last day of the quarterly period. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years. [Rules 62-213.440 and 62-296.405(1)(g), F.A.C.; and, Part X, Rule 2.1001, JEPB]
- A.35. Used Oil Records.** Records shall be kept of each delivery of “on-specification” used oil with a statement of the origin of the used oil and the quantity delivered/stored for firing. In addition, monthly records shall be kept of the quantity of “on-specification” used oil fired in these emissions units. The above records shall be maintained in a form suitable for inspection, retained for a minimum of five years, and be made available upon request. [Rule 62-213.440(1)(b)2.b., F.A.C.; and, 40 CFR 279.61 and 761.20(e)]
- A.36. Used Oil Annual Report.** The permittee shall include in the “Annual Operating Report for Air Pollutant Emitting Facility” a summary of the “on-specification” used oil analyses for the calendar year and a statement of the total quantity of “on-specification” used oil fired in Boiler No. 3 during the calendar year. [Rule 62-213.440(1)(b)2.b., F.A.C.]
- A.37. Shut Down Records.** When the NGS boiler No. 3 is shut down, it shall be recorded in the boiler’s operating log book. [Rule 62-213.440, F.A.C.; and, AC16-85951]
- A.38. Fuel Consumption Records.** The owner or operator shall create and maintain for each emissions unit hourly records of the amount of each fuel fired, the ratio of fuel oil to gas if co-fired, and the heating value and sulfur content, percent by weight, of each fuel fired. These records must be of sufficient detail to be able to identify when additional particulate matter and visible emissions testing is required pursuant to specific condition **A.29.b.**, and, when applicable, demonstrate compliance with the requirements of Specific Condition **A.27.e.** [Rules 62-4.070(3), 62-213.410, 62-213.440 and 62-296.405(1)(c)3., F.A.C.]
- A.39. Actual Emissions Reporting.** Based on analysis that compared baseline actual emissions with projected actual emissions, and the project, and pursuant to Rule 62-212.300(1)(e), F.A.C., the permittee is subject to the following monitoring, reporting and recordkeeping provisions:
- a. The permittee shall monitor the emissions of any PSD pollutant that the Department identifies could increase as a result of the construction or modification and that is emitted by any emissions unit that could be affected; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change. Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C., which are provided in Appendix C of this permit.
 - b. The permittee shall report to the Department within 60 days after the end of each calendar year during the 5-year period setting out the unit’s annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:
 - (1) The name, address and telephone number of the owner or operator of the major stationary source;
 - (2) The annual emissions as calculated pursuant to the provisions of 62-210.370, F.A.C., which are provided in Appendix C of this permit;

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -003

- (3) If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and
 - (4) Any other information that the owner or operator wishes to include in the report.
- c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1 and 2, F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.
 - d. For this project, the permittee estimated the following baseline actual emissions: 243 tons/year of carbon monoxide (CO); 1,916 tons/year of nitrogen oxides (NO_x); 6,791 tons/year of sulfur dioxide (SO₂); 232 tons/year of particulate matter (PM), 232 tons/year particulate matter of 10 microns or less (PM₁₀); and 29 tons/year of volatile organic compounds (VOC).
 - e. The permittee shall compute and report annual emissions in accordance with Rule 62-210.370(2), F.A.C. as provided by Appendix C of this permit. For this project, the permittee shall use the following methods in reporting the actual annual emissions for Unit 3:
 - (1) The permittee shall use data collected from the CEMS to determine and report the actual annual emissions of SO₂ and NO_x.
 - (2) The permittee shall use the data collected from the required stack tests to determine and report the actual annual emissions of PM/PM₁₀. The permittee shall follow the stack test methods, test procedures and test frequencies specified in the current Title V air operation permit.
 - (3) Unless otherwise approved by the Department, the permittee shall use the same emissions factors for reporting the actual annual emissions of CO and VOC as used in the application to establish baseline emissions.
 - (4) As defined in Rule 62-210.370(2), F.A.C., the permittee shall use a more accurate methodology if it becomes available.

[Permit No. 0310045-026-AC, Specific Condition, 3.A.3.]

Miscellaneous

A.40. Operation and Maintenance Plan. For Boiler No. 3, an Operation and Maintenance Plan required under RACT for PM is attached and a part of this permit pursuant to Rule 62-296.700(6), F.A.C. All activities shall be performed as scheduled and recorded data made available to the ERMD-EQD upon request. Records shall be maintained on file for a minimum of five (5) years. Appendix O&M, Operation and Maintenance Plan under RACT for PM, is attached as part of this permit. [Rule 62-296.700(6), F.A.C.; and, Part X, Rule 2.1001, JEPB]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units -006, -007, -008 & -009

The specific conditions in this section apply to the following emissions units:

E.U. ID No.	Brief Description
-006	NGS: Combustion Turbine No. 3
-007	NGS: Combustion Turbine No. 4
-008	NGS: Combustion Turbine No. 5
-009	NGS: Combustion Turbine No. 6

Emission unit numbers -006, -007, -008 and -009 are combustion turbines (CTs) manufactured by General Electric (Model MS 7000) and are designated as CTs No. 3, No. 4, No. 5 and No. 6, respectively. Each CT has a maximum heat input from new No. 2 distillate fuel oil of 901.0 MMBtu (LHV: lower heating value). The No. 2 fuel oil has a maximum sulfur content of 0.5%, by weight. These CTs are used as peaking units during peak demand times, during emergencies, and during controls testing, to run a nominal 56.2 MW generator (each). Emissions from the CTs are uncontrolled. Direct water spray fogger devices were installed in the inlet ducts of each CT to provide adiabatic inlet air cooling that increases turbine output and decreases heat rate. A group of exhaust stacks serve the CTs. CT No. 3 began commercial service in February 1975, No. 4 in January 1975, No. 5 in February 1974, and, No. 6 in December 1974.

{Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR). These emissions units are not subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines.}

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

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum operation heat input rates, based on the lower heating value (LHV) of the fuel, are as follows:

E.U. ID No.	MMBtu/hr Heat Input	Fuel Type
-006	901.0 (LHV)	New No. 2 Fuel Oil
-007	901.0 (LHV)	New No. 2 Fuel Oil
-008	901.0 (LHV)	New No. 2 Fuel Oil
-009	901.0 (LHV)	New No. 2 Fuel Oil

The attached Appendix NGS: CT Heat Input Nominal Values is a chart of the Base Load MW vs. Temperature to aid in defining full load for visible emissions testing purposes, since the manufacturer's curves are not available. The heat input numbers are only nominal values. An estimated heat input rate can be calculated from fuel records showing the quantity and the heat content of the fuel fired, and shall be provided upon request. [Rules 62-4.160(2) and 62-210.200 (Definitions - Potential to Emit (PTE)).]

B.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

B.3. Methods of Operation - Fuels. Only new No. 2 distillate fuel oil shall be fired in the combustion turbines. [Rule 62-213.410, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units -006, -007, -008 & -009

B.4. Hours of Operation.

- a. These CTs may operate continuously, i.e., 8,760 hours/year.
- b. Each CT shall not exceed 399 hrs/yr operation while using foggers.
[Rules 62-4.160(2) and 62-210.200(Definitions - PTE), F.A.C.; and, 0310045-006-AC]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition No. **B.5.** is based on the specified averaging time of the applicable test method.

B.5. Visible Emissions. Visible emissions from each combustion turbine shall not be equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1., F.A.C.]

B.6. Sulfur Dioxide - Sulfur Content. The sulfur content of the new No. 2 distillate fuel oil shall not exceed 0.5 percent, by weight. [Requested in Title V permit application.]

Excess Emissions

B.7. Excess Emissions Allowed. Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]

B.8. Best Operational Practices to Minimize Excess Emissions. The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in Appendix Q Protocol for Startup and Shutdown. [Rule 62-210.700(1), F.A.C. and Proposed by the Applicant in the Renewal Application]

B.9. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Monitoring of Operations

B.10. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis for each fuel delivery. [Rule 62-213.440, F.A.C.]

Test Methods and Procedures

B.11. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition	Methods for Evaluating Fuel Sulfur Content
EPA Method 9	Visual Determination of the Opacity of Emissions

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units -006, -007, -008 & -009

The above methods are described in Chapter 62-297, F.A.C. No other methods may be used unless prior written approval is received from the Department.
[Chapter 62-297, F.A.C.]

- B.12. Visible Emissions Testing - Biennial.** By this permit, biennial (odd years) emissions compliance testing for visible emissions is required for each emissions unit, but is not required for those emissions units burning No. 2 fuel oil for less than 400 hours during the previous even year or the current odd year in question.
[Rules 62-297.310(7)(a)4. & 8., F.A.C.; Part XI, Rule 2.1101, JEPB.]
- B.13. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- B.14. VE Test Method.** The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. [Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.; and, Part XI, Rule 2.1101, JEPB]
- B.15. Fuel Sulfur Analysis.** The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition.
[Rules 62-213.440 and 62-297.440, F.A.C.; and, Part XI, Rule 2.1101, JEPB]
- B.16. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

The attached Appendix NGS: CT Heat Input Nominal Values is a chart of the Base Load MW vs. Temperature to aid in defining full load for visible emissions testing purposes, since the manufacturer's curves are not available. The heat input numbers are only nominal values.

[Rules 62-297.310(2), F.A.C.; and, Part XI, Rule 2.1101, JEPB]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

- B.17. Reporting Schedule.** The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Quarterly Excess Emissions, if requested by the ERMD-EQD	Every 3 months (quarter)	B.18.

[Rule 62-210.700(6), F.A.C.]

- B.18. Malfunction Reporting.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Units -006, -007, -008 & -009

malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD. [Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]

B.19. Test Reports.

- a. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the ERMD-EQD on the results of each such test.
- b. The required test report shall be filed with the ERMD-EQD as soon as practical but no later than 45 days after the last sampling run of each test is completed.

[Rule 62-297.310(8), F.A.C.; and, Part XI, Rule 2.1101, JEPB]

B.20. Fuel Records. Records of No. 2 fuel oil consumption shall be maintained and made available to the ERMD-EQD upon request. [Rule 62-213.440, F.A.C.]

B.21. Foggers. A log book shall be maintained to show when each CT is using a fogger device and shall provide the beginning and ending times (hour and minute) of its use. [Rule 62-4.070(3), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Units -016 & -017

The specific conditions in this section apply to the following emissions units:

E.U. ID No.	Brief Description
-016	SJRPP Boiler No. 1
-017	SJRPP Boiler No. 2

SJRPP Boilers Nos. 1 and 2 are fossil fuel-fired steam generators, each having a nominal nameplate rating of 679.6 megawatts (electric). These emissions units are allowed to fire pulverized coal, a blend of petroleum coke and coal, natural gas, new No. 2 distillate fuel oil (startup and low-load operation), and "on-specification" used oil. The maximum heat input to each emissions unit is 6,144 million Btu per hour. SJRPP Boilers Nos. 1 and 2 are dry bottom wall-fired boilers and use an electrostatic precipitator (ESP) to control particulate matter, a wet limestone flue gas desulfurization (FGD) unit to control sulfur dioxide, low NO_x burners and over-fire air to control nitrogen oxides, and good combustion to control carbon monoxide. Each FGD consists of three scrubber towers. During low load operation, one scrubber tower may be utilized to meet sulfur dioxide limits.

SCR and Ammonia Injection Systems

Permit No. 0310045-017-AC authorized the installation of Selective Catalytic Reduction (SCR) systems on SJRPP Boiler Nos. 1 and 2. The permittee elected to install these controls as part of its plan to comply with the Clean Air Interstate Rule (Rule 62-296.470(CAIR), F.A.C.). When operating, the SCR systems decrease nitrogen oxides (NO_x) emissions from the SJRPP Boiler Nos. 1 and 2, which allows the plant to meet annual and ozone season NO_x CAIR allocations.

Installation of the SCR systems resulted in collateral increases in emissions of sulfuric acid mist (SAM) and particulate matter (PM/PM₁₀). The potential increase of SAM emissions is a result of the oxidation of sulfur dioxide (SO₂) to sulfur trioxide (SO₃) that is emitted as SAM after the flue gas desulfurization (FGD) system. Permit No. 0310045-017-AC required the installation of additional ammonia injection systems on SJRPP Boiler Nos. 1 and 2 to reduce SAM emissions. Ammonia is injected downstream of the SCR reactor and upstream of the existing electrostatic precipitator (ESP). The ammonia reacts with SO₃ to form salts (e.g., ammonium sulfate), which are collected in the ESP. With the additional ammonia injection systems, there shall be no PSD-significant emissions increases due to the installation of SCR systems on SJRPP Boiler Nos. 1 and 2. Under this project, there were no other planned changes in SJRPP Boiler Nos. 1 and 2.

The SCR system/ammonia injection system on SJRPP Boiler No. 1 became operational on July 16, 2009 and the SCR system/ammonia injection system on SJRPP Boiler No. 2 became operational on March 24, 2009.

Each boiler exhausts through its own stack (640 feet above grade). The stack diameter is 22.3 feet, exit temperature is 156 degrees F and the actual stack gas flow rate is 1,800,000 acfm. SJRPP Boiler No. 1 began commercial operation in December 1986. SJRPP Boiler No. 2 began commercial operation in March 1988.

{Permitting notes: These emissions units are regulated under Acid Rain, Phase II and Phase I; NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(8)(b)2., F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD; PSD-FL-010; PSD-FL-010, amendment dated 10/28/1986; PSD-FL-010(A, B, C & D); 0310045-012-AC/PSD-FL-010E; and, 0310045-014-AC/PSD-FL-010F]; Siting's PA 81-13: Conditions of Certification; PA 81-13L; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated May 7, 1981; and, Compliance Assurance Monitoring (CAM), adopted and incorporated in Rule 62-204.800, F.A.C.; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR).}

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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Units -016 & -017

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The maximum operation heat input rates are as follows:

E.U. ID No.	MMBtu/hr Heat Input
-016	6,144
-017	6,144

[Rules 62-4.160(2), 62-210.200 (Definitions - Potential to Emit (PTE)); PSD-FL-010; Part III, Rule 2.301, JEPB; and, PA 81-13]

C.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

C.3. Methods of Operation.

- a. The only fuels allowed to be fired are coal, a coal blend with a maximum of 30 percent petroleum coke (by weight), new No. 2 distillate fuel oil, and “on-specification” used oil.
- b. The new No. 2 fuel oil shall be used for startup and low load operation.
- c. The maximum weight of petroleum coke burned shall not exceed 150,000 pounds per hour, based on a 30-day rolling average using production information for the amount of coal and petcoke metered from the coal storage bins to the boilers.
- d. “On-specification” used oil will be generally fired as a blend with the No. 2 fuel oil. “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 emissions unit is at normal operating temperatures.
- e. Either coal, a blend of coal and petroleum coke, or fuel oil shall not be fired in the emissions units unless both electrostatic precipitator and limestone scrubber are operating properly except as provided under 40 CFR 60, Subpart Da.
- f. No fraction of the flue gas shall be allowed to bypass the limestone flue gas desulfurization (FGD) system to reheat the gasses exiting from the FGD system, if the bypass will cause overall SO₂ removal efficiency less than 90 percent or as otherwise provided in 40 CFR 60, Subpart Da. The percentage and amount of flue gas bypassing the FGD system shall be documented.
- g. 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. ¹
- h. Natural Gas Firing²: The permittee is authorized to continuously fire natural gas in SJRPP Boiler No. 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 MMBtu/hour. {Permitting Note: Natural gas firing shall only achieve approximately 11% of full load operation. Other authorized fuels shall be co-fired with natural gas to achieve full load operation.}

[Rule 62-213.410, F.A.C.; PSD-FL-010; 0310045-014-AC/PSD-FL-010F; PA 81-13L&M; PSD-FL-010(A & B); 40 CFR 761.20(e); ¹0310045-024-AC/PSD-FL-010H; ²0310045-029-AC/PSD-FL-010I; and, requested by the applicant in the Title V permit application.]

C.4. Hours of Operation. These emissions units are allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200 (Definitions - PTE), F.A.C.; Part III, Rule 2.301, JEPB; PSD-FL-010; and, PA 81-13]

Air Pollution Control Technologies and Measures

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- C.5. SCR Systems.** The permittee shall tune, operate and maintain new SCR systems for SJRPP Boiler Nos. 1 and 2 to reduce emissions of NO_x. In general, the SCR systems include the following equipment: ammonia storage; ammonia flow control unit (AFCU); ammonia injection grid (AIG); vanadium pentoxide catalyst; an SCR reactor chamber; an SCR bypass system; and other ancillary equipment. [Rules 62-296.470(CAIR) and 62-210.200(PTE), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.2.]
- C.6. Ammonia Injection Systems.** The permittee shall tune, operate and maintain new ammonia injection systems on SJRPP Boiler Nos. 1 and 2 to mitigate the formation of SAM due to the increased oxidation of SO₂ to SO₃ across the new SCR reactors. Ammonia is injected downstream of the SCR reactor and upstream of the existing ESP. The control system regulating the amount of ammonia injected to control SAM is integrated into the plant digital control system. The ammonia reacts with SO₃ to form salts (e.g., ammonium sulfate), which are collected in the ESP. With the additional ammonia injection systems, there shall be no PSD-significant emissions increases due to the installation of SCR systems on SJRPP Boiler Nos. 1 and 2. The proposed equipment includes storage tanks, piping, injectors, a control system and other ancillary equipment. The ammonia injection systems shall be operable when the SCR system is initially available for service. [Rule 62-212.400(12), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.3.]
- C.7. Circumvention - SCR and Ammonia Injection Systems.** No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. Operation of the SCR is not required. As necessary, the permittee shall operate the ammonia injection system for SAM emissions control to ensure the project does not result in a PSD-significant emissions increase (7 tons/year) of sulfuric acid mist emissions above baseline actual emissions (1,317 tons/year). [Rules 62-210.650 and 62-212.400(12), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.4.]
- C.8. Ammonia Slip.** Ammonia slip measured at the stack downstream of all emission control systems shall not exceed 5 parts per million by volume (ppmv). Annual testing of ammonia shall be conducted and corrective measures taken if measured values exceed 2 ppmv. [Rule 62-4.070(3), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.7.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions Nos. **C.9.**, **C.10.**, **C.13.** thru **C.16.**, and **C.18.** thru **C.20.**, are based on the specified averaging time of the applicable test method.

- C.9.** Appendix SJRPP: Table 6 (Revised) - Part C, SJRPP, is incorporated by reference (attached) for SJRPP Boilers 1 and 2 (EU-016 and EU-017, respectively). [PSD-FL-010, amendment dated October 28, 1986; and, PSD-FL-010C, clerked July 29, 1999.]
- C.10. Particulate Matter.** No owner or operator shall cause to be discharged into the atmosphere from any emissions unit any gases which contain particulate matter in excess of:
- 0.03 lb/million Btu heat input derived from the combustion of solid or liquid fuels (coal, a blend of coal and petroleum coke, or fuel oil) and 184 lb/hour¹;
 - 1 percent of the potential combustion concentration (99 percent reduction) when combusting solid fuel (coal or a blend of coal and petroleum coke), and
 - 30 percent of potential combustion concentration (70 percent reduction) when combusting liquid fuel.
- d. Particulate matter emissions shall be controlled with an electrostatic precipitator. [40 CFR 60.42a(a)(1), (2) & (3); PSD-FL-010 and BACT; PA 81-13; PSD-FL-010(A & B); and, ¹PSD-FL-010C (clerked July 29, 1999), Table 6 (Revised) - Part A.]

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C.11. Ash Content.

- a. The maximum ash content of the coal is 18%, by weight.
- b. The maximum ash content of the No. 2 fuel oil is 0.01%, by weight.
[PSD-FL-010; and, PA 81-13]

C.12. Visible Emissions. No owner or operator subject to the provisions of 40 CFR 60, Subpart Da, shall cause to be discharged into the atmosphere from any affected facility any gases which exhibit greater than 20 percent opacity (6 minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [40 CFR 60.42a(b); PA 81-13; and, PSD-FL-010C (clerked July 29, 1999), Table 6 (Revised) - Part A.]

C.13. Sulfur Dioxide - Coal Only. No owner or operator subject to the provisions of 40 CFR 60, Subpart Da, shall cause to be discharged into the atmosphere from any affected facility which combusts solid fuel or solid-derived fuel any gases which contain sulfur dioxide in excess of:

- a. 1.20 lb/million Btu heat input, maximum two-hour average, and 0.76 lb/MMBtu heat input (90% reduction of the potential combustion concentration), 30-day rolling average and 4,669 lb/hour¹; or
- b. 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than 0.60 lb/million Btu heat input.
- c. 100 percent of the potential combustion concentration (zero percent reduction), when emissions are less than 0.20 lb/million Btu heat input.
- d. SO₂ emissions shall be controlled with a lime/limestone flue gas desulfurization system on each boiler. [40 CFR 60.43a(a)(1), (2) & (3); PSD-FL-010 and BACT; PA 81-13]; and, ¹PSD-FL-010C (clerked July 29, 1999), Table 6 (Revised) - Part A.]

C.14. Sulfur Dioxide - Coal and Petroleum Coke Blends.

- a. When coals with a sulfur content up to or equal to 2%, by weight, are co-fired with petroleum coke, the SO₂ emissions shall not exceed 0.53 lb/MMBtu heat input and a minimum of 79% reduction shall be achieved in the flue gas desulfurization system.
- b. When coals with a sulfur content between 2 and 3.63%, by weight, are co-fired with petroleum coke, the SO₂ emission limitation shall be based on the following formula:
$$\text{SO}_2 \text{ emission limit (lb/MMBtu)} = (0.2 \times C/100) + 0.4$$

where: C = percent of coal co-fired on a heat input basis.
Please note that C is on a heat input basis and not on a weight input basis, so appropriate conversions should be used.
- c. When coals with a sulfur content greater than 3.63%, by weight, are co-fired with petroleum coke, the SO₂ emissions shall not exceed the following formula:
$$\text{SO}_2 \text{ (lb/MMBtu)} = (0.1653 \times C \times S - 0.4 \times C + 40) \times 1/100$$

where: C = percent of coal co-fired on a heat input basis; and,
S = weight percent sulfur in coal.
- d. The maximum SO₂ emission rate when co-firing petroleum coke and coal shall not exceed 0.676 lb/MMBtu heat input.
- e. Compliance with the SO₂ emissions limit shall be based on a 30-day rolling average for those days when petroleum coke is fired. Any use of petroleum coke during a 24-hour period shall be considered 1 day of the 30-day rolling average. The 30-day rolling average shall be calculated according to the Standards of Performance for New Stationary Sources (NSPS) codified in 40 CFR 60, Subpart Da, except as noted above.

[PSD-FL-010; PSD-FL-010(A & B); 0310045-014-AC/PSD-FL-010F; and, PA 81-13L]

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- C.15. Sulfur Dioxide - Liquid Fuel Only.** No owner or operator subject to the provisions of 40 CFR 60, Subpart Da, shall cause to be discharged into the atmosphere from any affected facility which combusts liquid fuel any gases which contain sulfur dioxide in excess of:
- 340 ng/J (0.80 lb/million Btu) heat input and 90 percent reduction, or
 - 100 percent of the potential combustion concentration (zero percent reduction), when emissions are less than 86 ng/J (0.20 lb/million Btu) heat input.
- [40 CFR 60.43a(b)(1) & (2)]
- C.16. Sulfur Dioxide.** Compliance with the emission limitation and percent reduction requirements are both determined on a 30-day rolling average basis. [40 CFR 60.43a(g); PSD-FL-010; and, PA 81-13]
- C.17. Sulfur Dioxide - Sulfur Content.**
- The maximum coal sulfur content shall not exceed 4.0 percent, by weight.
 - The maximum sulfur content of the petroleum coke - coal blend shall not exceed 4 percent, by weight.
 - The maximum sulfur content of the No. 2 fuel oil is 0.76%, by weight.
- [PSD-FL-010; PA 81-13; PSD-FL-010(A & B); 0310045-014-AC/PSD-FL-010F; and, PA 81-13L]
- C.18. Sulfur Dioxide.** When fuel oil and coal (or a blend of coal and petroleum coke) are combusted simultaneously, the applicable standard is determined by proration using the following formulas:
- If emissions of SO₂ to the atmosphere are greater than 260 ng/J (0.60 lb/MMBtu) heat input:
$$PS_{SO_2} = (340X + 520Y)/100$$
 and
$$\%P_S = 10$$
 - If emissions of SO₂ to the atmosphere are equal to or less than 260 ng/J (0.60 lb/MMBtu) heat input:
$$PS_{SO_2} = (340X + 520Y)/100$$
 and
$$\%P_S = (10X + 30Y)/100$$
- where:
- PS_{SO₂} = the prorated standard for sulfur dioxide when combusting fuel oil and coal (or a blend of coal and petroleum coke) simultaneously (ng/J heat input).
 - %P_S = percentage of potential SO₂ emissions allowed.
 - X = the percentage of total heat input derived from the combustion of fuel oil (excluding solid-derived fuels).
 - Y = the percentage of total heat input derived from the combustion of coal or a blend of coal and petroleum coke (including solid-derived fuels).
- [40 CFR 60.43a(h)(1) & (2)]
- C.19.1. Nitrogen Oxides.** No owner or operator subject to the provisions of 40 CFR 60, Subpart Da, shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides in excess of the following emission limits, based on a 30-day rolling average.
- NO_x emissions limits.
 - Coal or coal-petroleum coke blend: 0.60 lb/million Btu (260 ng/J) heat input and 3,686 lb/hour¹;
 - Fuel oil: 130 ng/J (0.30 lb/million Btu) heat input.
 - NO_x reduction requirement.
 - Solid fuels: 65 percent reduction of potential combustion concentration;
 - Liquid fuels: 30 percent reduction of potential combustion concentration.
- [40 CFR 60.44a(a)(1) & (2); and, ¹PSD-FL-010C (clerked July 29, 1999), Table 6 (Revised) - Part A.]
- C.19.2. Nitrogen Oxides (NO_x).** 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 NO_x

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(expressed as NO₂) in excess of the following emission limit, based on a 30-day rolling average basis, and NO_x 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)]
[03 10045-029-AC/PSD-FL-010I]

C.20.1. Nitrogen Oxides. When fuel oil and coal (or a blend of coal and petroleum coke) are combusted simultaneously, the applicable standard is determined by proration using the following formula:

$$PS_{NOX} = (130X + 260Y)/100$$

where:

PS_{NOX} is the prorated standard for nitrogen oxides when combusting coal (or a blend of coal and petroleum coke) and fuel oil simultaneously (ng/J heat input).

X = the percentage of total heat input derived from the combustion of fuel oil.

Y = the percentage of total heat input derived from the combustion of coal or a blend of coal and petroleum coke.

[40 CFR 60.44a(c); and, PSD-FL-010]

C.20.2. Nitrogen Oxides (NO_x). 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)]

[03 10045-029-AC/PSD-FL-010I]

C.21. On-Specification Used Oil. Burning of on-specification used oil is allowed in this emissions unit in accordance with all other conditions of this permit and the following conditions:

- a. *On-Specification Used Oil Emissions Limitations.* This emissions unit is permitted to burn on-specification used oil, which contains a Polychlorinated Biphenyl (PCB) concentration of less than 50 parts per million (ppm). On-specification used oil is defined as used oil that meets the specifications of 40 CFR 279 - Standards for the Management of Used Oil, listed below. "Off-specification" used oil shall not be burned. Used oil which fails to comply with any of these specification levels is considered "off-specification" used oil.

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CONSTITUENT/PROPERTY	ALLOWABLE LEVEL
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash point	100 degrees F minimum

- b. *Quantity Limitation.* This emissions unit is permitted to burn “on-specification” used oil that is generated by the JEA in the production and distribution of electricity, not to exceed 1,000,000 gallons during any calendar year.
- c. *PCB Limitation.* Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
- d. *Operational Requirements.* On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.
- e. *Testing Requirements.* For each batch of used oil to be burned, the owner or operator must be able to demonstrate that the used oil qualifies as on-specification used oil and that the PCB content is less than 50 ppm.

The requirements of this demonstration are governed by the following federal regulations:

- (1) Analysis of used oil fuel. A generator, transporter, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of Sec. 279.11 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications. [40 CFR 279.72(a)]
- (2) Testing of used oil fuel. Used oil to be burned for energy recovery is presumed to contain quantifiable levels (2 ppm) of PCB unless the marketer obtains analyses (testing) or other information that the used oil fuel does not contain quantifiable levels of PCBs.
 - (a) The person who first claims that a used oil fuel does not contain quantifiable level (2 ppm) PCB must obtain analyses or other information to support that claim.
 - (b) Testing to determine the PCB concentration in used oil may be conducted on individual samples, or in accordance with the testing procedures described in Sec. 761.60(g)(2). However, for purposes of this part, if any PCBs at a concentration of 50 ppm or greater have been added to the container or equipment, then the total container contents must be considered as having a PCB concentration of 50 ppm or greater for purposes of complying with the disposal requirements of this part.
 - (c) Other information documenting that the used oil fuel does not contain quantifiable levels (2 ppm) of PCBs may consist of either personal, special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the oil contains no detectable PCBs.[40 CFR 761.20(e)(2)]

When testing is required, the owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:

Arsenic, cadmium, chromium, lead, total halogens, flash point and PCBs.

Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

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- f. *Recordkeeping Requirements.* The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department:
- (1) The gallons of on-specification used oil placed into inventory to be burned and the gallons of on-specification used oil burned each month.
 - (2) Results of the analyses of each deposit of used oil, as required by the above conditions.
 - (3) Other information, besides testing, used to make a claim that the used oil meets the requirements of on-specification used oil or that the used oil contains less than 50 ppm of PCBs.
- [40 CFR 279.72(b), 40 CFR 279.74(b) and 40 CFR 761.20(e)]
- g. *Reporting Requirement.* The owner or operator shall submit, with the Annual Operation Report form, the analytical results required above and the total amount of on-specification used oil placed into inventory to be burned and the total amount of on-specification used oil burned during the previous calendar year.
- [Rule 62-4.070(3) and 62-213.440, F.A.C., 40 CFR 279 and 40 CFR 761, unless otherwise noted.]

Excess Emissions

The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.

- C.22. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. See Appendix Q: Protocol for Startup and Shutdown.

Best Operational Practices to Minimize Excess Emissions. The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in Appendix Q Protocol for Startup and Shutdown. [Rule 62-210.700(1), F.A.C. and Proposed by the Applicant in the Renewal Application]

[Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]

- C.23. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Monitoring of Operations

- C.24. Compliance Assurance Monitoring (CAM) Requirements. The emissions units are subject to the CAM requirements contained in the attached Appendix CAM: SJRPP Boilers Nos. 1 and 2. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; and, Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Compliance Provisions

- C.25. Compliance with PM. Compliance with the particulate matter emission limitation under 40 CFR 60.42a(a)(1) constitutes compliance with the percent reduction requirements for particulate matter under 40 CFR 60.42a(a)(2) and (3). [40 CFR 60.46a(a)]

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- C.26. Compliance With NO_x.** Compliance with the nitrogen oxides emission limitation under 40 CFR 60.44a(1) constitutes compliance with the percent reduction requirements under 40 CFR 60.44a(2). [40 CFR 60.46a(b)]
- C.27. NSPS Excess Emissions.** The particulate matter emission standards under 40 CFR 60.42a and the nitrogen oxide standards under 40 CFR 60.44a apply at all times except during periods of startup, shutdown, or malfunction. The sulfur dioxide emission standards under 40 CFR 60.43a apply at all times except during periods of startup, shutdown, or when both emergency conditions exist and the procedures under 40 CFR 60.46a(d) are implemented. [40 CFR 60.46a(c)]
- C.28. NSPS Excess Emissions During Emergency Conditions.** During emergency conditions in the principle company, an affected facility with a malfunctioning flue gas desulfurization system may be operated if sulfur dioxide emissions are minimized by:
- Operating all operable flue gas desulfurization modules, and bringing back into operation any malfunctioned module as soon as repairs are completed.
 - Bypassing flue gases around only those flue gas desulfurization system modules that have been taken out of operation because they were incapable of any sulfur dioxide emission reduction or which would have suffered significant physical damage if they had remained in operation.
- [40 CFR 60.46a(d)(1) & (2)]
- C.29. Compliance Averages.** Compliance with the sulfur dioxide emission limitations and the percentage reduction requirements under 40 CFR 60.43a and the nitrogen oxides emissions limitations under 40 CFR 60.44a is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day and a new 30 day average emission rate for both sulfur dioxide and nitrogen oxides and a new percent reduction for sulfur dioxide are calculated to show compliance with the standards. [40 CFR 60.46a(e)]
- C.30. Compliance Determinations.** Compliance is determined by calculating the arithmetic average of all hourly emission rates for SO₂ and NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction (NO_x only), or emergency conditions (SO₂ only). Compliance with the percentage reduction requirement for SO₂ is determined based on the average inlet and average outlet SO₂ emissions rates for the 30 successive boiler operating days. [40 CFR 60.46a(g)]
- C.31. Insufficient Data.** If the owner or operator has not obtained the minimum quantity of emission data as required under 40 CFR 60.47a, compliance of the affected facility with the emission requirements under 40 CFR 60.43a and 60.44a for the day on which the 30-day period ends may be determined by the Administrator following the applicable procedures in section 7 of Method 19. [40 CFR 60.46a(h)]

Continuous Monitoring Requirements

- C.32. Opacity.** The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the opacity of emissions discharges to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Administrator). [40 CFR 60.47a(a)]
- C.33. Sulfur Dioxide.** The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring sulfur dioxide emissions

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as follows: Sulfur dioxide emissions are monitored at both the inlet and outlet of the sulfur dioxide control device. [40 CFR 60.47a(b)(1)]

- C.34. Nitrogen Oxides.** The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere. [40 CFR 60.47a(c)]
- C.35. O₂ and CO₂.** The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the oxygen or carbon dioxide content of the flue gases at each location where sulfur dioxide or nitrogen oxides emissions are monitored. [40 CFR 60.47a(d)]
- C.36. Requirement to Operate CEMS.** The continuous monitoring systems are operated and data recorded during all periods of operation at the affected facility including periods of startup, shutdown, malfunction, or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments. [40 CFR 60.47a(e)]
- C.37. Minimum Data Requirement.** The owner or operator shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with a continuous monitoring system, the owner or operator shall supplement emission data with other monitoring systems approved by the Administrator or the reference methods and procedures as described in 40 CFR 60.47a(h). [40 CFR 60.47a(f)]
- C.38. One-hour Averages.** The 1-hour averages required under 40 CFR 60.13(h) are expressed in ng/J (lb/million Btu) heat input and used to calculate the average emission rates under 40 CFR 60.46a. The 1-hour averages are calculated using the data points required under 40 CFR 60.13(b). At least two data points must be used to calculate the 1-hour averages. [40 CFR 60.47a(g)]
- C.39. Supplemental Data.** When it becomes necessary to supplement continuous monitoring system data to meet the minimum data requirements in 40 CFR 60.47a(f), the owner or operator shall use the reference methods and procedures as specified in this paragraph. Acceptable alternative methods are given in 40 CFR 60.47a(j).
- Method 6 shall be used to determine the SO₂ concentration at the same location as the SO₂ monitor. Samples shall be taken at 60-minute intervals. The sampling time and sample volume for each sample shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Each sample represents a 1-hour average.
 - Method 7 shall be used to determine the NO_x concentration at the same location as the NO_x monitor. Samples shall be taken at 30-minute intervals. The arithmetic average of two consecutive samples represents a 1-hour average.
 - The emission rate correction factor, integrated bag sampling and analysis procedure of Method 3B shall be used to determine the O₂ or CO₂ concentration at the same location as the O₂ or CO₂ monitor. Samples shall be taken for at least 30 minutes in each hour. Each sample represents a 1-hour average.
 - The procedures in Method 19 shall be used to compute each 1-hour average concentration in ng/J (lb/million Btu) heat input.
- [40 CFR 60.47a(h)(1), (2), (3) & (4)]
- C.40. Monitoring System Performance Evaluations.** The owner or operator shall use methods and procedures in this paragraph to conduct monitoring system performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d). Acceptable alternative methods and procedures are given in 40 CFR 60.47a(j).

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- a. Methods 6, 7, and 3B, as applicable, shall be used to determine O₂, SO₂, and NO_x concentrations.
- b. SO₂ or NO_x (NO), as applicable, shall be used for preparing the calibration gas mixtures (in N₂, as applicable) under Performance Specification 2 of appendix B of 40 CFR 60.
- c. For affected facilities burning only fossil fuel, the span value for a continuous monitoring system for measuring opacity is between 60 and 80 percent and for a continuous monitoring system measuring nitrogen oxides firing solid fuel is 1,000 ppm.
- d. For affected facilities burning fossil fuel, alone or in combination with non-fossil fuel, the span value of the sulfur dioxide continuous monitoring system at the inlet to sulfur dioxide control device is 125 percent of the maximum estimated hourly potential emissions of the fuel fired, and the outlet of the sulfur dioxide control device is 50 percent of maximum estimated hourly potential emissions of the fuel fired.
[40 CFR 60.47a(i)(1), (2), (3), & (5)]

C.41. Reference Method Alternatives. The owner or operator may use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.47a.

- a. For Method 6, Method 6A or 6B (whenever Methods 6 and 3 or 3B data are used) or 6C may be used. Each Method 6B sample obtained over 24 hours represents 24 1-hour averages. If Method 6A or 6B is used under 40 CFR 60.47a(i), the conditions under 40 CFR 60.46(d)(1) apply; these conditions do not apply under 40 CFR 60.47a(h).
- b. For Method 7, Method 7A, 7C, 7D, or 7E may be used. If Method 7C, 7D, or 7E is used, the sampling time is 1 hour.
- c. For Method 3, Method 3A or 3B may be used if the sampling time is 1 hour.
- d. For Method 3B, Method 3A may be used.
[40 CFR 60.47a(j)]

Test Methods and Procedures

C.42. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Methods 17, 5, 5B, or 5F	Methods for Determining Particulate Matter Emissions
EPA Methods 6, 6A, 6B, or 6C	Methods for Determining Sulfur Dioxide Emissions
EPA Method 7, Method 7A, 7C, 7D, or 7E	Determination of Nitrogen Oxide Emissions
EPA Method 8 or EPA Conditional Test Method (CTM-013) ¹	Determination of Sulfuric Acid Mist Emissions CTM-013 may be used in lieu of EPA Method 8
EPA Method 19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
EPA Method 9	Visual Determination of the Opacity of Emissions
EPA Conditional Test Method	Determination of Ammonia Emissions (used to demonstrate

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Method(s)	Description of Method(s) and Comment(s)
(CTM-027), or EPA Method 320	compliance with the ammonia slip limit ²

The above methods are described in Chapter 62-297, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C; ¹DEP Order No. 09-I-AP, issued 06/22/09; and, ²Permit No. 0310045-017-AC, specific condition 3.11.]

- C.43. Annual Compliance Tests. Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), this emissions unit shall be tested to demonstrate compliance with the emission limitations and standards for particulate matter, nitrogen oxides, sulfur dioxide, and visible emissions. The NO_x and SO₂ RATA test data may be used to demonstrate compliance with the annual test requirement, provided the testing requirements (notification, procedures & reporting) of Chapter 62-297, F.A.C. are met. [Rule 62-297.310(7), F.A.C.; and, PA 81-13]
- C.44. Annual Tests - Ammonia Injection for SAM Emissions Control and SAM Emission Rates. During each federal fiscal year, the permittee shall conduct performance tests to determine the SAM emission rates and adjust the ammonia injection rates as necessary. At least six representative 1-hour test runs shall be conducted on either SJRPP Boiler Nos. 1 and 2. Annual performance tests shall be alternated between the boilers such that testing is conducted on a boiler at least twice during each 5-year period. Within 45 days following the last test run conducted, the permittee shall provide a report summarizing the emissions tests conducted, the results of the tests, the catalyst oxidation rate, how the automated control system was adjusted, and the updated algorithm used for the automated control system or the updated series of related performance curves. [Rules 62-4.070(3) and 62-212.300(1)(e), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.9.]
- C.45. Compliance Tests Prior To Renewal. Prior to permit renewal, compliance tests shall be performed for the following pollutants: VE, PM, SO₂ and NO_x. [Rule 62-297.310(7)(a)3., F.A.C.]
- C.46. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- C.47. Required Test Methods. In conducting performance tests, the owner or operator shall use as reference methods and procedures the methods in Appendix A of 40 CFR 60 or the methods and procedures as specified in 40 CFR 60.48a, except as provided in 40 CFR 60.8(b). 40 CFR 60.8(f) does not apply to this section for SO₂ and NO_x. Acceptable alternative methods are given in 40 CFR 60.48a(e). [40 CFR 60.48a(a)]
- C.48. Particulate Matter. The owner or operator shall determine compliance with the particulate matter standard as follows:
 - a. The dry basis F factor (O₂) procedures in Method 19 shall be used to compute the emission rate of particulate matter.
 - b. For the particulate matter concentration, Method 5 shall be used at affected facilities without wet FGD systems and Method 5B shall be used after wet FGD systems.
 - (1) The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of no greater than 160 ± 14 °C (320 ± 25 °F).
 - (2) For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O₂ concentration. The O₂ sample shall be obtained simultaneously with, and at the same transverse points as, the particulate run. If the

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particulate run has more than 12 transverse points, the O₂ transverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O₂ transverse points. If the grab sampling procedure is used, the O₂ concentration for the run shall be the arithmetic mean of all the individual O₂ concentrations at each transverse point.

- c. Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.
[40 CFR 60.48a(b)(1), (2) & (3)]

C.49. Sulfur Dioxide. The owner or operator shall determine compliance with the sulfur dioxide standards as follows:

- a. The percent of potential SO₂ emissions (%P_S) to the atmosphere shall be computed using the following equation:

$$\%P_S = [(100 - \%R_F)(100 - \%R_S)]/100$$

where:

%P_S = percent of potential SO₂ emissions, percent.

%R_F = percent reduction from fuel pretreatment, percent.

%R_S = percent reduction by SO₂ control system, percent.

- b. The procedures in Method 19 may be used to determine percent reduction (%R_F) of sulfur by such processes as fuel pretreatment (physical coal cleaning, hydrodesulfurization of fuel oil, etc.), coal pulverizers, and bottom and fly ash interactions. This determination is optional.
- c. The procedures in Method 19 shall be used to determine the percent SO₂ reduction (%R_S) of any SO₂ control system. Alternatively, a combination of an "as fired" fuel monitor and emission rates measured after the control system, following the procedures in Method 19, may be used if the percent reduction is calculated using the average emission rate from the SO₂ control device and the average SO₂ input rate from the "as fired" fuel analysis for 30 consecutive boiler operating days.
- d. The appropriate procedures in Method 19 shall be used to determine the emission rate.
- e. The continuous monitoring system in 40 CFR 60.47a(b) and (d) shall be used to determine the concentrations of SO₂ and CO₂ or O₂.

[40 CFR 60.48a(c)(1), (2), (3), (4) & (5)]

C.50. Nitrogen Oxides. The owner or operator shall determine compliance with the NO_x standard as follows:

- a. The appropriate procedures in Method 19 shall be used to determine the emission rate of NO_x.
- b. The continuous monitoring system in 40 CFR 60.47a(c) and (d) shall be used to determine the concentrations of NO_x and CO₂ or O₂.

[40 CFR 60.48a(d)(1) & (2)]

C.51. Alternative Test Methods. The owner or operator may use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.48a:

- a. For Method 5 or 5B, Method 17 may be used at facilities with or without wet FGD systems if the stack temperature at the sampling location does not exceed the average temperature of 160 °C (320 °F). Procedures 2.1 and 2.3 of Method 5B in 40 CFR 60, Appendix A may be used in Method 17 only if it is used after wet FGD systems. Method 17 shall not be used after wet FGD systems if the effluent is saturated or laden with water droplets.
- b. The F_C factor (CO₂) procedures in Method 19 may be used to compute the emission rate of particulate matter under the stipulations of 40 CFR 60.46(d)(1). The CO₂ shall be determined in the same manner as the O₂ concentration.

[40 CFR 60.48a(e)(1) & (2)]

C.52. Used Oil Compliance Requirements. Compliance with the "on-specification" used oil requirements will be determined as follows:

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- a. Analysis of a sample collected from each batch delivered for firing; or,
- b. The new batch delivery is from a collection site that has an acceptable analysis already on file with the facility and the analytical results are assumed by the facility for the batch.
- c. For quantification purposes, the highest concentration of each constituent as determined by any analysis is assumed to be the concentration of the constituent of the blended used oil.

[Rules 62-4.070 and 62-213.440(1)(b)2.b., F.A.C.; Part V, Rule 2.501, JEPB; and, 40 CFR 279]

C.53. If the permittee wants the CEMs RATA tests for SO₂ and NO_x to be considered as formal compliance tests, then the permittee must satisfy all of the requirements (i.e., prior notification, submittal requirements, etc.) of Rule 62-297.310, F.A.C. [Rules 62-297.310(7) and 62-213.440, F.A.C.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

C.54. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	C.73.
Quarterly Excess Emissions, if requested by the ERMD-EQD	Every 3 months (quarter)	C.64.
Stack monitoring, fuel usage and fuel analysis data	Every 3 months (quarter)	C.69.

[40 CFR 60 Subpart A; and, Rule 62-210.700(6), F.A.C.]

C.55. Performance Test Data. For sulfur dioxide, nitrogen oxides, and particulate matter emissions, the performance test data from the performance evaluation of the continuous monitors (including the transmissometer) are submitted to the Administrator. [40 CFR 60.49a(a)]

C.56. SO₂ and NO_x Reporting. For sulfur dioxide and nitrogen oxides the following information is reported to the Administrator for each 24-hour period.

- a. Calendar date.
- b. The average sulfur dioxide and nitrogen oxides emission rates (ng/J or lb/million Btu) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standards; and, description of corrective actions taken.
- c. Percent reduction of the potential combustion concentration of sulfur dioxide for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.
- d. Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 18 hours of operation of the facility; justification for not obtaining sufficient data; and, description of corrective actions taken.
- e. Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NO_x only), emergency conditions (SO₂ only), or other reasons, and justification for excluding data other than startup, shutdown, malfunction, or emergency conditions.
- f. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

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- g. Identification of the times when hourly averages have been obtained based on manual sampling methods.
 - h. Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.
 - i. Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.
- [40 CFR 60.49a(b)(1), (2), (3), (4), (5), (6), (7), (8) & (9)]

C.57. Additional Reporting Requirements. If the required quantity of emission data as required by 40 CFR 60.47a is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of 40 CFR 60.46a(h) is reported to the Administrator for that 30-day period:

- a. The number of hourly averages available for outlet emission rates (n_o) and inlet emission rates (n_i) as applicable.
- b. The standard deviation of hourly averages for outlet emission rates (s_o) and inlet emission rates (s_i) as applicable.
- c. The lower confidence limit for the mean outlet emission rate (E_o^*) and the upper confidence limit for the mean inlet emission rate (E_i^*) as applicable.
- d. The applicable potential combustion concentration.
- e. The ratio of the upper confidence limit for the mean outlet emission rate (E_o^*) and the allowable emission rate (E_{std}) as applicable.

[40 CFR 60.49a(c)(1), (2), (3), (4) & (5)]

C.58. Control System Malfunction Notification. If any standards under 40 CFR 60.43a are exceeded during emergency conditions because of control system malfunction, the owner or operator of the affected facility shall submit a signed statement:

- a. Indicating if emergency conditions existed and requirements under 40 CFR 60.46a(d) were met during each period, and
- b. Listing the following information:
 - (1) Time periods the emergency condition existed;
 - (2) Electrical output and demand on the owner or operator's electric utility system and the affected facility;
 - (3) Amount of power purchased from interconnected neighboring utility companies during the emergency period;
 - (4) Percent reduction in emissions achieved;
 - (5) Atmospheric emission rate (ng/J) of the pollutant discharged; and
 - (6) Actions taken to correct control system malfunction.

[40 CFR 60.49a(d)(1) & (2)]

C.59. Fuel Pretreatment Credit. If fuel pretreatment credit toward the sulfur dioxide emission standard under 40 CFR 60.43a is claimed, the owner or operator of the affected facility shall submit a signed statement:

- a. Indicating what percentage cleaning credit was taken for the calendar quarter, and whether the credit was determined in accordance with the provisions of 40 CFR 60.48a and Method 19 (appendix A); and
- b. Listing the quantity, heat content, and date each pretreated fuel shipment was received during the previous quarter; the name and location of the pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the previous quarter.

[40 CFR 60.49a(e)(1) & (2)]

C.60. Missing CEMS Data. For any periods for which opacity, sulfur dioxide or nitrogen oxides emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability.

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Operations of the control system and the affected facility during periods of data unavailability are to be compared with operation of the control system and the affected facility before and following the period of data unavailability. [40 CFR 60.49a(f)]

- C.61. CEMS and Compliance Notification.** The owner or operator of the affected facility shall submit a signed statement indicating whether:
- The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified.
 - The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.
 - The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.
 - Compliance with the standards has or has not been achieved during the reporting period. [40 CFR 60.49a(g)(1), (2), (3) & (4)]
- C.62. Opacity Excess Emissions Reports.** For the purposes of the reports required under 40 CFR 60.7, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under 40 CFR 60.42a(b). Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Administrator each calendar quarter. [40 CFR 60.49a(h)]
- C.63. Quarterly Report Submission.** The owner or operator of an affected facility shall submit the written reports required under 40 CFR 60.49(a) and 40 CFR 60, Subpart A, to the Administrator for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. [40 CFR 60.49a(i)]
- C.64. Quarterly Excess Emissions Reports.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD. [Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]
- C.65. Used Oil Records.** Records shall be kept of each delivery of “on-specification” used oil with a statement of the origin of the used oil and the quantity delivered/stored for firing. In addition, monthly records shall be kept of the quantity of “on-specification” used oil fired in these emissions units; or, hourly if fired unblended. The above records shall be maintained in a form suitable for inspection, retained for a minimum of five years, and be made available upon request. [Rule 62-213.440(1)(b)2.b., F.A.C.; Part V, Rule 2.501, JEPB; and, 40 CFR 279.61 and 761.20(e)]
- C.66. Used Oil Reporting.** The permittee shall include in the “Annual Operating Report (AOR) for Air Pollutant Emitting Facility” a summary of the “on-specification” used oil analyses for the calendar year and a statement of the total quantity of “on-specification” used oil fired in Boilers Nos. 1 and 2 and the auxiliary boilers during the calendar year. [Rule 62-213.440(1)(b)2.b., F.A.C.; and, Part V, Rule 2.501, JEPB]
- C.67.1. Fuel Consumption Records.** The owner or operator shall maintain, for each emissions unit, a daily log of the amounts and types of fuels fired and copies of fuel analyses containing information on the sulfur and ash content, percent by weight, and heating values. [Rule 62-213.440, F.A.C.; Part V, Rule 2.501, JEPB; and, PSD-FL-010 and PA 81-13]

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- C.67.2. Natural Gas Firing Records.** The permittee shall maintain sufficient records to document the firing of natural gas. [Permit No. 0310045-029-AC/PSD-FL-010I]
- C.68. Reporting and Recordkeeping.**
- Documentation verifying that the coal and petroleum coke fuel blends combusted in Boilers Nos. 1 and 2 have not exceeded the 30 percent maximum petroleum coke by weight limit shall be maintained and made available upon request by the Department or the ERMD-EQD. [Rule 62-213.440, F.A.C.; Part V, Rule 2.501, JEPB; 0310045-014-AC/PSD-FL-010F; and, PA81-13L]
 - The permittee shall maintain and submit to the Department and ERMD-EQD on an annual basis for a period of five years from the date the emissions unit is co-fired with petroleum coke above 20%, by weight, information demonstrating in accordance with 40 CFR 52.21(b)(21)(v) and 40 CFR 52.21(b)(33) that the operational changes did not result in emissions increases of nitrogen oxides, carbon monoxide, sulfur dioxide, sulfuric acid mist, volatile organic compounds, and particulate matter. [0310045-014-AC/PSD-FL-010F; and, PA81-13L]
- C.69. Reporting and Recordkeeping.** Stack monitoring, fuel usage and fuel analysis data shall be reported to the ERMD-EQD on a quarterly basis in accordance with 40 CFR 60.7. [PA81-13]
- C.70. Operational Data - SCR and Ammonia Injection Systems.** For each unit, the permittee shall continuously monitor and record the ammonia injection rate for SAM emissions control and the hours of SCR bypass. [Rule 62-4.070(3), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.13.]
- C.71. Test Reports - SCR and Ammonia Injection Systems.** For each sulfuric acid mist test run, the test report shall indicate the ammonia injection rate for SAM emissions control, unit load, unit heat input rate, and total secondary power input to the electrostatic precipitator. [Rule 62-297.310(8), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.12.]

Miscellaneous

- C.72. Stack Height.** The height of each boiler's exhaust stack for SJRPP Boiler No. 1 and No. 2 shall not be less than 640 feet above grade. [PSD-FL-010 and PA81-13]
- C.73. NSPS Requirements - Subpart A.** These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
- 40 CFR 60.7, Notification and Recordkeeping
 - 40 CFR 60.8, Performance Tests
 - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
 - 40 CFR 60.12, Circumvention
 - 40 CFR 60.13, Monitoring Requirements
 - 40 CFR 60.19, General Notification and Reporting requirements,
- which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]
- C.74. NSPS Requirements - Subpart Da.** Except as otherwise provided in this permit, the combustion turbine shall comply with all applicable provisions of 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted by reference in Rule 62-204.800(8)(b)2., F.A.C., except that the Secretary is not the Administrator for purposes

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of 40 CFR 60.47a. These emissions units shall comply with **Appendix 40 CFR 60 Subpart Da** included with this permit. [Rule 62-204.800(8)(b)2., F.A.C.]

C.75. Reference Method Alternatives. The owner or operator may use the following as alternatives to the reference methods and procedures in 40 CFR 60.46 or in other sections as specified: The emission rate (E) of particulate matter, SO₂ and NO_x may be determined by using the F_c factor, provided that the following procedure is used:

a. The emission rate (E) shall be computed using the following equation:

$$E = C F_c (100 / \% \text{ CO}_2)$$

where:

E = emission rate of pollutant, ng/J (lb/million Btu).

C = concentration of pollutant, ng/dscm (lb/dscf).

% CO₂ = carbon dioxide concentration, percent dry basis.

F_c = factor as determined in appropriate sections of Method 19.

b. If and only if the average F_c factor in Method 19 is used to calculate E and either E is from 0.97 to 1.00 of the emission standard or the relative accuracy of a continuous emission monitoring system is from 17 to 20 percent, then three runs of Method 3B shall be used to determine the O₂ and CO₂ concentration according to the procedures in 40 CFR 60.46(b)(2)(ii), (4)(ii), or (5)(ii). Then if F_o (average of three runs), as calculated from the equation in Method 3B, is more than ± 3 percent than the average F_o value, as determined from the average values of F_d and F_c in Method 19, i.e., F_{oa} = 0.209 (F_{da} / F_{ca}), then the following procedure shall be followed:

- (1) When F_o is less than 0.97 F_{oa}, then E shall be increased by that proportion under 0.97 F_{oa}, e.g., if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard.
- (2) When F_o is less than 0.97 F_{oa} and when the average difference (\bar{d}) between the continuous monitor minus the reference methods is negative, then E shall be increased by that proportion under 0.97 F_{oa}, e.g., if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.
- (3) When F_o is greater than 1.03 F_{oa} and when \bar{d} is positive, then E shall be decreased by that proportion over 1.03 F_{oa}, e.g., if F_o is 1.05 F_{oa}, E shall be decreased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

[40 CFR 60.46(d)(1)]

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Source Obligation - SCR and Ammonia Injection Systems

- C.76. Source Obligation - SCR and Ammonia Injection Systems.** At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by increasing its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction has not yet commenced on the source or modification. [Rule 62-212.400(12)(c), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 2.1.]
- C.77. Annual PM/PM₁₀ and SAM Emissions Projections - SCR and Ammonia Injection Systems.** For the project under Permit No. 0310045-017-AC, the permittee projected that actual annual emissions due to the project would not exceed the PM/PM₁₀ annual emissions (322 + 14 = 336 tons/year); and would not exceed the SAM annual emissions (1,317 + 6 = 1,323 tons/year). The permittee shall demonstrate this by compiling and submitting the reports required by this permit. For the purposes of this reporting, all PM emissions are considered to be PM₁₀ emissions. [Rules 62-212.300 and 62-210.370, F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.5.]
- C.78. Ammonia Injection for SAM Emissions Control - SCR and Ammonia Injection Systems.** On an annual basis, the permittee must demonstrate that SAM emissions as a result of the project under Permit No. 0310045-017-AC do not exceed 1,323 tons per year. The permittee shall install and operate the ammonia injection system at a frequency and injection rate for SAM control to satisfy this requirement. An automated control system is used to adjust the ammonia flow rate for the given set of operating conditions based on the most recent performance test results. [Rules 62-4.070(3) and 62-212.300(1)(e), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.6.]
- C.79. Annual PM/PM₁₀ and SAM Emissions Reports - SCR and Ammonia Injection Systems.** In accordance with Rule 62-212.300(1)(e), F.A.C., the permittee shall comply with the following monitoring, reporting and recordkeeping provisions:
- The permittee shall monitor the PM/PM₁₀ and SAM emissions using the most reliable information available. On a calendar year basis, the permittee shall calculate and maintain a record of the annual emissions (tons per year) for a period of 5 years after completing construction on each unit's control system *{Permitting note: The control system on SJRPP Boiler No. 1 became operational on July 16, 2009 and the control system on SJRPP Boiler No. 2 became operational on March 24, 2009, therefore, the 5-year period for both boilers is effective for calendar year (CY) 2010 emissions through CY 2014 emissions}*. Emissions shall be computed in accordance with Rule 62-210.370, F.A.C.
 - Within 60 days after each calendar year following completion of construction on each new control system, the permittee shall report to the Compliance Authority the annual emissions for each unit for the preceding calendar year. The report shall contain the following:
 - Name, address and telephone number of the owner or operator of the major stationary source;
 - Annual emissions as calculated pursuant to subparagraph 62-212.300(1)(e)1., F.A.C.;
 - If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and
 - Any other information that the owner or operator wishes to include in the report.
 - The information required to be documented and maintained shall be submitted to the Compliance Authority, where it will be available for review to the general public.
- [Rule 62-212.300(1)(e), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.14.]
- C.80. PM/PM₁₀ and SAM Emissions Computation and Reporting - SCR and Ammonia Injection Systems.** The permittee shall compute PM/PM₁₀ and SAM emissions in accordance with the following requirements.

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- a. For each year of reporting required, emissions shall be computed based on the controlled and uncontrolled emissions factors determined during the required annual emissions test. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
- b. With appropriate supporting test data, multiple emission factors may be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
- c. The permittee shall compute emissions by multiplying the appropriate controlled or uncontrolled emission factor by the annual heat input rate for the period over which the emissions are computed. The uncontrolled emissions factor shall be used if the minimum ammonia injection rate established for the latest test is not met.
- d. The permittee shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the Department or Compliance Authority for any regulatory purpose.

[Rule 62-210.370, F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.15.]

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Subsection D. Emissions Unit -023

The specific conditions in this section apply to the following emissions units:

E.U. ID No.	Brief Description
-023	SJRPP: Fuel and Limestone Handling and Storage Operations
-023a	Rotary Railcar Dumper Building
-023b	Conveyor C-3 Tunnel Ventilation (6,400 cfm)
-023b	Conveyor C-3 Tunnel Ventilation (6,400 cfm)
-023b	Conveyor C-3 Tunnel Ventilation (21,600 cfm)
-023c	Shiphold Operations
-023d	Ship Unloader Hopper and Spillage Collector Transfers
-023d	Ship Unloader Hopper to Transfer CT-1, Spillage Conveyor
-023e	Fuel Transfer Building (DC-2)
-023e	Transfer Stations Nos. 1 thru 7
-023e	Transfer Point 9GC-04 to 9GC-05
-023f	Stacker/Reclaimer (Stacker Mode)
-023f	Stacker
-023f	Reclaimer
-023g	Emergency Reclaim Hoppers - Load Out
-023j	Limestone Truck Loadout & Transfer
-023k	Limestone Storage Pile #1 - Existing
-023k	Limestone Storage Pile #2 - Fuel Yard
-023k	Limestone Loadout
-023k	Coal Pile
-023k	Petroleum Coke Pile
-023l	Limestone Reclaim Hopper with Fabric Filter (3DC-01)
-023l	Limestone Silos with Fabric Filters (2: 1DC-01 and 2DC-01)
-023l	Quick Lime Silo with Fabric Filter (used for water treatment)
-023l	Fuel Handling Building with Fabric Filter (DC-3)
-023l	Unit #1 Fuel Storage Bins with Fabric Filter (DC-4)
-023l	Unit #2 Fuel Storage Bins with Fabric Filter (DC-5)

The coal receiving, storage and transfer systems at the coal and petroleum coke storage yard support the operation of the two power boilers. Fugitive particulate matter emissions are generated from limestone handling and storage systems. The emissions units/points are as depicted in Table 6 (Revised) – Part B, SJRPP: Materials Handling and Storage Operations [PSD-FL-010, and as amended (was originally Tables 2 and 6)]. Particulate matter emissions and visible emissions are controlled using fabric filter systems, water sprays, wetting agents, and

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit -023

full enclosures or partial enclosures, covers and wind screens, where appropriate and required by permit. Visible emissions limits shall be used for compliance purposes.

{Permitting notes: This emissions unit/points are regulated under NSPS - 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants, adopted and incorporated by reference in Rule 62-204.800(8)(b)31., F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD) New Source Review: PSD-FL-010, and as amended (A) thru (E); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated 07/07/1981; PPSA: PA 81-13, and as amended; and, 0310045-015-AC/PSD-FL-010(G).}

Essential Potential to Emit (PTE) Parameters

- D.1. Hours of Operation.** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; Part III, Rule 2.301, JEPB; and, PSD-FL-010]
- D.2. Air Quality Control Systems (AQCS).** The permittee shall maintain and continue to use the AQCS established in Appendix SJRPP: Table 6 (Revised) - Part B, SJRPP: Materials Handling and Storage Operations, to minimize particulate matter emissions. [Rules 62-4.070(3) and 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; PSD-FL-010; BACT; PA 81-13; PSD-FL-010, amended October 28, 1986; PSD-FL-010C, clerked July 29, 1999; 0310045-012-AC/PSD-FL-010E; and, 0310045-015-AC/PSD-FL-010G]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Condition Nos. **D.3.** and **D.4.** are based on the specified averaging time of the applicable test method.

- D.3.** The emissions unit/points are subject to the included Appendix SJRPP: Table 6 (Revised) - Part B, SJRPP: Materials Handling and Storage Operations. [PSD-FL-010; BACT; PA 81-13; PSD-FL-010, amended 10/28/1986; PSD-FL-010C, clerked July 29, 1999; 0310045-012-AC/PSD-FL-010E; and, 0310045-015-AC/PSD-FL-010G]
- D.4. Visible Emissions.** Visible emissions (VE) shall be used for compliance purposes and shall not exceed the following opacity limits as established in Appendix SJRPP: Table 6 (Revised) - Part B, SJRPP: Materials Handling and Storage Operations:

E.U. ID No.	Brief Description	VE Limit (% opacity)
-023	SJRPP: Fuel and Limestone Handling and Storage Operations	
-023a	Rotary Railcar Dumper Building	10
-023b	Conveyor C-3 Tunnel Ventilation (6,400 cfm)	5
-023b	Conveyor C-3 Tunnel Ventilation (6,400 cfm)	5
-023b	Conveyor C-3 Tunnel Ventilation (21,600 cfm)	5
-023c	Shiphold Operations	10
-023d	Ship Unloader Hopper and Spillage Collector Transfers	10
-023d	Ship Unloader Hopper to Transfer CT-1, Spillage Conveyor	10
-023e	Fuel Transfer Building (DC-2)	10

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-023e	Transfer Stations Nos. 1 thru 7	5
-023e	Transfer Point 9GC-04 to 9GC-05	5
-023f	Stacker/Reclaimer (Stacker Mode)	10
-023f	Stacker	10
-023f	Reclaimer	10
-023g	Emergency Reclaim Hoppers - Load Out	10
-023j	Limestone Truck Loadout & Transfer	10
-023k	Limestone Storage Pile #1 - Existing	10
-023k	Limestone Storage Pile #2 - Fuel Yard	10
-023k	Limestone Loadout	10
-023k	Coal Pile	10
-023k	Petroleum Coke Pile	10
-023l	Limestone Reclaim Hopper with Fabric Filter (3DC-01)	5
-023l	Limestone Silos with Fabric Filters (2: 1DC-01 and 2DC-01)	5
-023l	Quick Lime Silo with Fabric Filter (used for water treatment)	5
-023l	Fuel Handling Building with Fabric Filter (DC-3)	5
-023l	Unit #1 Fuel Storage Bins with Fabric Filter (DC-4)	5
-023l	Unit #2 Fuel Storage Bins with Fabric Filter (DC-5)	5

[PSD-FL-010; BACT; PA 81-13; PSD-FL-010, amended October 28, 1986; PSD-FL-010C (clerked July 29, 1999), Table 6 (Revised) - Part B; 0310045-012-AC/PSD-FL-010E; and, 0310045-015-AC/PSD-FL-010G]

Excess Emissions

The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.

D.5. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]

D.6. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Test Methods and Procedures

D.7. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
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SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit -023

Method(s)	Description of Method(s) and Comment(s)
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[Chapter 62-297, F.A.C.]

D.8. Annual Compliance Tests. During each federal fiscal year (October 1st to September 30th), the following emissions units/points shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions:

E.U. ID No.	Brief Description
-0231	Limestone Reclaim Hopper with Fabric Filter (3DC-01)
-0231	Limestone Silos with Fabric Filters (2: 1DC-01 and 2DC-01)
-0231	Fuel Handling Building with Fabric Filter (DC-3)
-0231	Unit #1 Fuel Storage Bins with Fabric Filter (DC-4)
-0231	Unit #2 Fuel Storage Bins with Fabric Filter (DC-5)

The testing frequency for each emissions unit/point was established by the PSD permit, PSD-FL-010G. [Rule 62-297.310(7), F.A.C.; and, PSD-FL-010G, Table 6 (Revised) - Part B.]

D.9. Compliance Tests Prior To Renewal. Prior to permit renewal, a VE compliance test shall be performed for the following emission units/points:

E.U. ID No.	Brief Description
-023b	Conveyor C-3 Tunnel Ventilation (6,400 cfm)
-023b	Conveyor C-3 Tunnel Ventilation (21,600 cfm)
-023b	Conveyor C-3 Tunnel Ventilation (21,600 cfm)
-0231	Limestone Reclaim Hopper with Fabric Filter (3DC-01)
-0231	Limestone Silos with Fabric Filters (2: 1DC-01 and 2DC-01)
-0231	Quick Lime Silo with Fabric Filter (used for water treatment)
-0231	Fuel Handling Building with Fabric Filter (DC-3)
-0231	Unit #1 Fuel Storage Bins with Fabric Filter (DC-4)
-0231	Unit #2 Fuel Storage Bins with Fabric Filter (DC-5)

The testing frequency for each emissions unit/point was established by the PSD permit, PSD-FL-010G. [Rule 62-297.310(7)(a)3., F.A.C.; and, PSD-FL-010G, Table 6 (Revised) - Part B.]

D.10. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit -023

D.11. Visible Emissions. Visible emissions tests shall be performed for the affected emissions points in Appendix SJRPP: Table 6 (Revised) - Part B, SJRPP: Materials Handling and Storage Operations for compliance purposes, in accordance with the testing frequency established in the table, and while using EPA Method 9, 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. [PSD-FL-010; PA 81-13; Part V, Rule 2.501, JEPB; and, 0310045-015-AC/PSD-FL-010G.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

D.12. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Quarterly Excess Emissions, if requested by the ERMD-EQD	Every 3 months (quarter)	D.13.

[Rule 62-210.700(6), F.A.C.]

D.13. Malfunction Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD. [Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]

D.14. Test Reports.

- a. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the ERMD-EQD on the results of each such test.
- b. The required test report shall be filed with the ERMD-EQD as soon as practical but no later than 45 days after the last sampling run of each test is completed.

[Rule 62-297.310(8), F.A.C.; Part XI, Rule 2.1101, JEPB]

Miscellaneous Requirements.

D.15. NSPS Requirements - Subpart A. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

- 40 CFR 60.7, Notification and Recordkeeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting requirements,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

D.16. NSPS Requirements - Subpart Y. Except as otherwise provided in this permit, this emissions unit/points shall comply with all applicable provisions of 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants, adopted and incorporated by reference in Rule 62-204.800(8)(b)31., F.A.C. This emissions unit/points shall comply with **Appendix 40 CFR 60 Subpart Y** included with this permit. [Rule 62-204.800(8)(b)2., F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit -022

The specific conditions in this section apply to the following emissions units:

E.U. ID No.	Brief Description
-022	SJRPP: Bottom Ash, Fly Ash and Gypsum Handling and Storage Operations
-022a	Gypsum Dewatering Building
-022a	Gypsum Storage Enclosure
-022j	Gypsum Truck Loadout
-022j	Fly Ash Loadout for Silo 1A (metal structure)
-022j	Fly Ash Loadout for Silo 1B (metal structure)
-022j	Fly Ash Loadout for Silo 2A (metal structure)
-022j	Fly Ash Loadout for Silo 2B (metal structure)
-022k	Solid Waste Disposal Area
-022l	Saleable Fly Ash Silo 1A with Fabric Filter (concrete structure)
-022l	Saleable Fly Ash Silo 1B with Fabric Filter (concrete structure)
-022l	Saleable Fly Ash Silo 2A with Fabric Filter (concrete structure)
-022l	Saleable Fly Ash Silo 2B with Fabric Filter (concrete structure)
-022l	Non-Saleable Fly Ash Silo Unit 1 with Fabric Filter (concrete structure)
-022l	Non-Saleable Fly Ash Silo Unit 2 with Fabric Filter (concrete structure)
-022m	Wet Fly Ash Loadout 1A/1B
-022m	Bottom Ash Loadout 1A/1B
-022m	Wet Fly Ash Loadout 2A/2B
-022m	Bottom Ash Loadout 2A/2B
-022n	Unpaved Road, By-Product Transport

Fugitive particulate matter emissions are generated from bottom ash, fly ash and gypsum materials handling and storage operations. This emissions unit/points are as depicted in Appendix SJRPP: Table 6 (Revised) - Part B, SJRPP: Materials Handling and Storage Operations [PSD-FL-010, and as amended (was originally Tables 2 and 6)]. Particulate matter emissions and visible emissions are controlled using fabric filter systems, water sprays, wetting agents, and full enclosures or partial enclosures, covers and wind screens, where appropriate and required by permit. Visible emissions limits shall be used for compliance purposes.

{Permitting notes: This emissions unit/points are regulated under Rule 62-212.400(5), PSD NSR Review, which includes BACT [dated 05/07/81; PSD-FL-010, and as amended ((A) thru (E))]; PA 81-13, and as amended; and, 0310045-012-AC/PSD-FL-010(G).}

Essential Potential to Emit (PTE) Parameters

E.1. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; Part III, Rule 2.301, JEPB]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit -022

E.2. Air Quality Control Systems (AQCS). The permittee shall maintain and continue to use the AQCS established in Appendix SJRPP: Table 6 (Revised) - Part B, SJRPP: Materials Handling and Storage Operations, to minimize particulate matter emissions. [Rules 62-4.070(3) and 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; PSD-FL-010; BACT; PA 81-13; PSD-FL-010, amended October 28, 1986; PSD-FL-010C, clerked July 29, 1999; 0310045-012-AC/PSD-FL-010E; and, 0310045-015-AC/PSD-FL-010G]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition Nos. **E.3.** and **E.4.** are based on the specified averaging time of the applicable test method.

E.3. This emissions unit/points are subject to Appendix SJRPP: Table 6 (Revised) - Part B, SJRPP: Materials Handling and Storage Operations, and it is attached. [PSD-FL-010; BACT; PA81-13; PSD-FL-010, amended October 28, 1986; PSD-FL-010C, clerked July 29, 1999; 0310045-012-AC/PSD-FL-010E; and, 0310045-015-AC/PSD-FL-010G]

E.4. Visible Emissions. Visible emissions (VE) shall be used for compliance purposes and shall not exceed the following opacity limits as established in Appendix SJRPP: Table 6 (Revised) - Part B, SJRPP: Materials Handling and Storage Operations:

E.U. ID No.	Brief Description	VE Limit (% opacity)
-022	SJRPP: Bottom Ash, Fly Ash and Gypsum Handling and Storage Operations	
-022a	Gypsum Dewatering Building	5
-022a	Gypsum Storage Enclosure	5
-022j	Gypsum Truck Loadout	5
-022j	Fly Ash Loadout for Silo 1A (metal structure)	10
-022j	Fly Ash Loadout for Silo 1B (metal structure)	10
-022j	Fly Ash Loadout for Silo 2A (metal structure)	10
-022j	Fly Ash Loadout for Silo 2B (metal structure)	10
-022k	Solid Waste Disposal Area	10
-022l	Saleable Fly Ash Silo 1A with Fabric Filter (concrete structure)	5
-022l	Saleable Fly Ash Silo 1B with Fabric Filter (concrete structure)	5
-022l	Saleable Fly Ash Silo 2A with Fabric Filter (concrete structure)	5
-022l	Saleable Fly Ash Silo 2B with Fabric Filter (concrete structure)	5
-022l	Non-Saleable Fly Ash Silo Unit 1 with Fabric Filter (concrete structure)	5
-022l	Non-Saleable Fly Ash Silo Unit 2 with Fabric Filter (concrete structure)	5
-022m	Wet Fly Ash Loadout 1A/1B	10
-022m	Bottom Ash Loadout 1A/1B	10
-022m	Wet Fly Ash Loadout 2A/2B	10
-022m	Bottom Ash Loadout 2A/2B	10

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit -022

-022n	Unpaved Road, By-Product Transport	10
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[PSD-FL-010; BACT; PA 81-13; PSD-FL-010, amended October 28, 1986; PSD-FL-010C (clerked July 29, 1999), Table 6 (Revised) - Part B; 0310045-012-AC/PSD-FL-010E; and, 0310045-015-AC/PSD-FL-010G]

Excess Emissions

E.5. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]

E.6. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Test Methods and Procedures

E.7. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

E.8. Annual Compliance Tests. During each federal fiscal year (October 1st to September 30th), the following emissions units/points shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions:

E.U. ID No.	Brief Description
-0221	Saleable Fly Ash Silo 1A with Fabric Filter (concrete structure)
-0221	Saleable Fly Ash Silo 1B with Fabric Filter (concrete structure)
-0221	Saleable Fly Ash Silo 2A with Fabric Filter (concrete structure)
-0221	Saleable Fly Ash Silo 2B with Fabric Filter (concrete structure)
-0221	Non-Saleable Fly Ash Silo Unit 1 with Fabric Filter (concrete structure)
-0221	Non-Saleable Fly Ash Silo Unit 2 with Fabric Filter (concrete structure)

The testing frequency for each emissions unit/point was established by the PSD permit, PSD-FL-010G. [Rule 62-297.310(7), F.A.C.; and, PSD-FL-010G, Table 6 (Revised) - Part B.]

E.9. Compliance Tests Prior To Renewal. Prior to permit renewal, a VE compliance test shall be performed for the following emission units/points:

E.U. ID No.	Brief Description

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit -022

-0221	Saleable Fly Ash Silo 1A with Fabric Filter (concrete structure)
-0221	Saleable Fly Ash Silo 1B with Fabric Filter (concrete structure)
-0221	Saleable Fly Ash Silo 2A with Fabric Filter (concrete structure)
-0221	Saleable Fly Ash Silo 2B with Fabric Filter (concrete structure)
-0221	Non-Saleable Fly Ash Silo Unit 1 with Fabric Filter (concrete structure)
-0221	Non-Saleable Fly Ash Silo Unit 2 with Fabric Filter (concrete structure)

The testing frequency for each emissions unit/point was established by the PSD permit, PSD-FL-010G. [Rule 62-297.310(7)(a)3., F.A.C.; and, PSD-FL-010G, Table 6 (Revised) - Part B.]

E.10. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

E.11. Visible Emissions. Visible emissions tests shall be performed for the affected emissions points in Appendix SJRPP: Table 6 (Revised) - Part B, SJRPP: Materials Handling and Storage Operations for compliance purposes, in accordance with the testing frequency established in the table, and while using EPA Method 9, 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. [PSD-FL-010; PA 81-13; Part V, Rule 2.501, JEPB; and, 0310045-015-AC/PSD-FL-010G]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

E.12. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Quarterly Excess Emissions, if requested by the ERMD-EQD	Every 3 months (quarter)	E.13.

[Rule 62-210.700(6), F.A.C.]

E.13. Malfunction Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD. [Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]

E.14. Test Reports.

- a. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the ERMD-EQD on the results of each such test.
- b. The required test report shall be filed with the ERMD-EQD as soon as practical but no later than 45 days after the last sampling run of each test is completed. [Rule 62-297.310(8), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Unit -024

The specific conditions in this section apply to the following emissions units:

E.U. ID No.	Brief Description
-024	SJRPP: Cooling Towers (2)

Fugitive particulate matter emissions from the two cooling towers are controlled with drift eliminators. No mass testing requirement shall be imposed due to the physical layout.

{Permitting note: This emissions unit is regulated under Rule 62-212.400(5), PSD NSR Review (see PSD-FL-010 issued March 12, 1982, and amended October 28, 1986); PSD-FL-010C, clerked July 29, 1999.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

- F.1. Hours of Operation.** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; Part III, Rule 2.301, JEPB; PSD-FL-010 and PA 81-13]
- F.2. Controls.** The permittee shall maintain and continue to use drift elimination to minimize particulate matter emissions. [Rules 62-4.070 and 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; PSD-FL-010; BACT; PA 81-13; PSD-FL-010, amended October 28, 1986; and, PSD-FL-010C, clerked July 29, 1999]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition Nos. **F.3.** and **F.4.** is based on the specified averaging time of the applicable test method.

- F.3.** This emissions unit/points are subject to Appendix SJRPP: Table 6 (Revised) - Part A, SJRPP, amended July 29, 1999, and it is attached. [PSD-FL-010; BACT; PA 81-13; PSD-FL-010, amended October 28, 1986; and, PSD-FL-010C, clerked July 29, 1999]
- F.4. Particulate Matter.** Particulate matter emissions from each cooling tower shall not exceed 67 lbs/hr[±]. No mass testing requirement shall be imposed due to the physical layout. [PSD-FL-010; PA 81-13; and, ¹PSD-FL-010C (clerked July 29, 1999), Table 6 (Revised) - Part A.]

Test Methods and Procedures

- F.5. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. {Permitting note: No mass testing is required, however, special compliance testing could be required.} [Rule 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection G. Emissions Unit -026 & -027

The specific conditions in this section apply to the following emissions units:

E.U. ID No.	Brief Description
-026	NGS Circulating Fluidized Bed Boiler No. 2
-027	NGS Circulating Fluidized Bed Boiler No. 1

These emissions units are two coal, coal coated with latex, petroleum coke, biomass, and landfill gas fired circulating fluidized bed (CFB) boilers. These boilers are connected to the existing steam turbines of the retired Boilers Nos. 1 and 2 (297.5 MW each) as part of the repowering project authorized under air construction permit, No. 0310045-003-AC/PSD-FL-265. A dual-flued 495-foot stack was added to the facility for Repowered Units 1 and 2, along with solid fuel delivery and storage facilities, limestone preparation and storage facilities (including three limestone dryers), a lime silo, aqueous ammonia storage, polishing scrubbers, precipitators or baghouses, ash removal and storage facilities, and an electrical substation. The stack diameter is 15 feet, exit temperature is 144 degrees F and the actual stack gas flow rate is 700,000 acfm.

JEA is allowed to burn 195 standard cubic feet per minute (scfm) of landfill gas in the CFB Boiler Nos. 1 and 2 (total). The 195 scfm of landfill gas is equivalent to a heat input of 6 MMBtu/hr. The landfill gas is being generated from the adjacent North Landfill (Facility ID No. 0310340) operated by the City of Jacksonville which is located directly north of the JEA NGS/SJRPP/ST power plant at 11405 Island Drive in Duval County. The maximum sulfur content, as H₂S, of the landfill gas is expected to be 48.2 parts per million volume dry (ppmvd). The natural gas presently being combusted in the CFB boilers typically contains 34 ppmvd of H₂S.

Each NGS CFB boiler is equipped with a selective non-catalytic reduction (SNCR) system to reduce NO_x emissions, limestone injection to reduce SO₂ emissions, fabric filter to reduce particulate matter (PM & PM₁₀) emissions, while maximizing combustion efficiency and minimizing NO_x formation to limit CO and VOC emissions.

CFB boiler Nos. 1 and 2 began operation in February 2002 and May 2002, respectively.

{Permitting notes: The emissions units are regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(8)(b)2., F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD; PSD-FL-265; PSD-FL-265(A, B & C)]; and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination; and, Compliance Assurance Monitoring (CAM), adopted and incorporated in Rule 62-204.800, F.A.C.; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR).}

Essential Potential to Emit (PTE) Parameters

G.1.1. Permitted Capacity. The maximum operation heat input rates are as follows:

E.U. ID No.	MMBtu/hr Heat Input	Fuel Type
-026	2,764	Natural Gas, No. 2 Fuel Oil, Coal, Biomass and Petroleum Coke
-027	2,764	Natural Gas, No. 2 Fuel Oil, Coal, Biomass and Petroleum Coke

These rates are included only for purposes of determining capacity during compliance stack tests. Continuous compliance with these rates is not required; and, capacity during compliance testing shall be determined based

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Subsection G. Emissions Unit -026 & -027

on fuel flow data and the as-fired heat content of the fuel. [Rules 62-4.160(2) and 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; 0310045-003-AC/PSD-FL-265; and, 0310045-037-AC/PSD-FL-265F.]

G.1.2. Permitted Capacity. The maximum landfill gas firing rate for the CFB Boiler Nos. 1 and 2 is as follows:

E.U. ID No.	scf/hr
-026 and -027	11,700 (total)

Landfill gas may be burned in combination with other authorized fuels provided the maximum heat input to each boiler is not exceeded. [Rules 62-4.160(2) and 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; and, Application No. 0310045-027-AC.]

{Permitting notes: The permittee and the Department agree that the CEMS used for the federal Acid Rain Program (40 CFR Part 75) conservatively overestimates heat input ratings. The monitoring data for heat input is, therefore, not appropriate for purposes of compliance, including annual compliance certifications.}

G.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

G.3. Methods of Operation. Only coal, coal treated with a latex binder, petroleum coke, No. 2 fuel oil (maximum sulfur content of 0.05 percent, by weight), up to 240 tons per day of biomass in each unit, and natural gas, shall be fired in Units 1 and 2. {Permitting note: Fuel additives, such as naturally occurring clays containing kaolinite or montmorillonite, along with olivine, bauxite or granite in the form of a raw material and/or as a component of coal bottom ash may be used to prevent agglomeration of the bed material in the boilers. The Department and the Compliance Authority shall be notified in writing if a new source or type of fuel additive is desired to be evaluated for approval.} [Rule 62-213.410, F.A.C.; 0310045-003-AC/PSD-FL-265; 0310045-012-AC; and, 0310045-037-AC/PSD-FL-265F.]

G.4. Hours of Operation. These emissions units are allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200 (Definitions - PTE), F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Air Pollution Control Technology

G.5.1. Sulfur Dioxide, Acid Gases and Metals Control. Sulfur dioxide (SO₂) and acid gases shall be controlled by the injection of limestone into the CFB boiler beds. Residual sulfur dioxide, acid gases and metals shall be further controlled by the use of add-on air quality control systems for Units 1 and 2. The add-on air quality control systems installed by JEA and approved by the Department are spray dryer absorber (SDA) systems (one for Unit 1 and one for Unit 2) and fabric filters (one for Unit 1 and one for Unit 2). During periods when an SDA is non-operational due to malfunction, maintenance or repair, limestone injection to the associated CFB boiler shall be increased to the extent needed to ensure that the SO₂ emission limits in Specific Condition No. G.8. for Units 1 and 2 of 0.2 lb/mmBtu, 24-hr block average, and 0.15 lb/mmBtu, 30-day rolling average are achievable. Non-operation of the SDA is limited to a maximum of 12 hours per month per unit (12-month rolling average). [Applicant Request; and 0310045-022-AC/PSD-FL-265E, specific condition 9.]

G.5.2. Sulfur Dioxide (SO₂). The permittee shall inject limestone into the CFB boiler beds or use the spray dryer absorber as necessary to maintain SO₂ emissions within permit limits as recorded by the continuous emissions monitoring system (CEMS) at all times. [Rules 62-4.070(1) and (3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Permit No. 0310045-027-AC.]

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- G.6. Oxides of Nitrogen Control.** A selective non-catalytic reduction (SNCR) system designed to meet a limit of 0.09 lb/MMBtu, 30-day rolling average, shall be used for control of oxides of nitrogen (NO_x) emissions. [Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]
- G.7. Particulate Matter Control.** Particulate matter (PM and PM₁₀) shall be controlled by the use of high efficiency, add-on air quality control devices (either fabric filters or electrostatic precipitators) that are designed to meet a limit of 0.011 lb/MMBtu. [Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions Nos. **G.8.** thru **G.18.** are based on the specified averaging time of the applicable test method.

- G.8. Best Available Control Technology.** The following Table 1 is a summary of the BACT determinations by the Department and other limits requested by the applicant, as noted:

Table 1: Emission Limits for CFB Units 1 and 2

Pollutant	Emission Limits - Per Unit
Visible emissions	10 percent opacity, 6-minute block average
SO ₂ ²	0.2 lb/MMBtu, 24-hour block average ^{2,3} 0.15 lb/MMBtu, 30-day rolling average ²
NO _x ¹	0.09 lb/MMBtu, 30-day rolling average ⁴
PM/PM ₁₀ ¹	0.011 lb/MMBtu, 3-hour average ¹
CO ¹	350 lbs/hour, 24-hour block average ^{1,3}
VOCs ¹	14 lbs/hour, 3-hour average ¹
Pb ²	0.07 lb/hour, 3-hour average ²
H ₂ SO ₄ ²	1.1 lbs/hour, 3-hour average ²
HF ¹	0.43 lb/hour, 3-hour average ¹
Hg ¹	0.03 lb/hour, 6-hour average ¹

¹ BACT determination.

² Requested by applicant.

³ 24-hour block averages are calculated from midnight to midnight.

⁴ Equivalent to approximately 0.8-0.9 lb/MW-hr (gross energy output).

[Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

- G.9. Visible Emissions.** Visible emissions shall not exceed 10 percent opacity, 6-minute block average, excluding periods of startup, shutdown, and malfunction. [Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]
- G.10. Sulfur Dioxide.**
- Sulfur dioxide (SO₂) emissions from CFB Boilers Nos. 1 and 2 shall not exceed 0.20 lb/MMBtu (24-hour block average) nor 0.15 lb/MMBtu (30-day rolling average).
 - Sulfur dioxide from CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 combined shall not exceed 12,284 tons during any consecutive 12-month period on a rolling basis.
- [Applicant Request; and, 0310045-003-AC/PSD-FL-265]

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G.11. Oxides of Nitrogen.

- a. Oxides of nitrogen (NO_x) emissions from CFB Boilers Nos. 1 and 2 shall not exceed 0.09 lb/MMBtu on a 30-day rolling average basis.
- b. Oxides of nitrogen emissions from CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 combined shall not exceed 3,600 tons during any consecutive 12-month period on a rolling basis.
[Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

G.12. Particulate Matter (PM and PM₁₀).

- a. Particulate matter (PM) emissions from CFB Boilers Nos. 1 and 2 shall not exceed 0.011 lb/MMBtu (3-hour average).
- b. Particulate matter-10 microns or smaller (PM₁₀) emissions from CFB Boilers Nos. 1 and 2 shall not exceed 0.011 lb/MMBtu (3-hour average).
- c. Stack emissions of particulate matter (PM) from CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 combined shall not exceed 881 tons during any consecutive 12-month period on a rolling basis.
[Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

G.13. Carbon Monoxide. Carbon monoxide (CO) emissions shall not exceed 350 lbs/hour, 24-hour block average, nor 1533 tons per year from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

G.14. Volatile Organic Compounds. Volatile organic compound (VOC) emissions shall not exceed 14 lbs/hour (3-hour average), nor 61.5 tons per year from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

G.15. Lead. Lead (Pb) emissions shall not exceed 0.07 lb/hour (3-hour average), from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

G.16. Sulfuric Acid Mist. Sulfuric acid mist (H₂SO₄) emissions shall not exceed 1.1 lbs/hour (3-hour average), from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

G.17. Hydrogen Fluoride. Hydrogen fluoride (HF) emissions shall not exceed 0.43 lb/hour (3-hour average), from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

G.18. Mercury. Mercury (Hg) emissions shall not exceed 0.03 lb/hour (6-hour average), from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Excess Emissions

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

G.19. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed the limitations established in Specific Condition G.22. [Rule 62-210.700(1), F.A.C.; and, 0310045-015-AC/PSD-FL-265C]

G.20. Best Operational Practices to Minimize Excess Emissions. The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in Appendix Q

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Protocol for Startup and Shutdown. [Rule 62-210.700(1), F.A.C. and Proposed by the Applicant in the Renewal Application]

G.21. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

G.22. Excess Emissions - Authorized Emissions.

(1) Notwithstanding other emission limits and standards established by this permit, excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided (1) that best operational practices are adhered to and (2) the duration of excess emissions shall be minimized but not exceed sixty (60) hours in any calendar month per emissions unit (CFBs Units Nos. 1 and 2). The permittee shall keep operational records necessary to demonstrate compliance with this restriction. Emissions data collected during periods of startup, shutdown, and malfunction shall be included when determining compliance with annual emission limits. The CFB Units shall not be started up at the same time. The permittee shall update the written procedure summarizing the current best operational practices to be followed every 5 years (at operating permit renewal). Pursuant to Rule 62-210.200, F.A.C., Definitions, the following are defined:

a. *Startup.* The commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.

b. *Shutdown.* The cessation of the operation of an emissions unit for any purpose.

c. *Malfunction.* Any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

See 40 CFR 60.7 and Rule 62-210.700(6), F.A.C. for reporting of excess emissions. [Rules 62-210.200, 62-210.700(1) & (5), F.A.C.; and, 0310045-015-AC/PSD-FL-265C]

(2) Notwithstanding other emission limits and standards established by this permit, excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided (1) that best operational practices are adhered to and (2) the duration of excess emissions shall be minimized but not exceed sixty (60) hours during any 30 consecutive calendar days per emissions unit (CFBs Units Nos. 1 and 2). The permittee shall keep operational records necessary to demonstrate compliance with this restriction. Emissions data collected during periods of startup, shutdown, and malfunction shall be included when determining compliance with annual emission limits. The CFB Units shall not be started up at the same time. The permittee shall update the written procedure summarizing the current best operational practices to be followed every 5 years (at operating permit renewal). Pursuant to Rule 62-210.200, F.A.C., Definitions, the following are defined:

a. *Startup.* The commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.

b. *Shutdown.* The cessation of the operation of an emissions unit for any purpose.

c. *Malfunction.* Any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

See 40 CFR 60.7 and Rule 62-210.700(6), F.A.C. for reporting of excess emissions. [Rules 62-210.200, 62-210.700(1) & (5), F.A.C.; and, 0310045-015-AC/PSD-FL-265C; and, applicant requested]

Monitoring of Operations

G.23. Compliance Assurance Monitoring (CAM) Requirements. These emissions units are subject to the CAM requirements contained in the attached Appendix CAM: NGS CFB Boilers Nos. 1 and 2. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; and, Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

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Monitoring Requirements

G.24. Continuous Emissions Monitoring Systems. The permittee shall install, calibrate, operate, and maintain Continuous Emission Monitoring Systems (CEMS) in the stack to measure and record the sulfur dioxide, oxides of nitrogen, carbon monoxide and visible emissions from CFB Boilers Nos. 1 and 2. An emission level above a BACT limit, considering the 6-minute, 24-hour and 30-day rolling average periods, as applicable, shall be reported to the ERMD-EQD pursuant to Rule 62-4.160(8), F.A.C. The continuous emission monitoring systems shall comply with the certification, performance specifications, and quality assurance, and other applicable requirements of 40 CFR Part 75 and 40 CFR Part 60 (Appendix B), as indicated above. Periods of startup, shutdown, and malfunction shall be monitored, recorded, and reported as excess emissions when emission levels exceed the limits in Table 1 of Specific Condition No. **G.8.** following the format of 40 CFR 60.7 (As revised, 64 Fed Reg. 7458 (Feb. 12, 1999)). {Permitting note: 40 CFR 75 does not address RATA requirements for CO CEMS. The required annual RATA testing for the CO CEMS shall be performed instead as required by 40 CFR 60 Appendix B.} [0310045-037-AC/PSD-FL-265F, specific condition 50.(a).]

Compliance Determination - Test Methods and Procedures

G.25. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Methods 5, 5B, 8 17 or 29	Methods for Determining Particulate Matter Emissions
EPA Methods 201 or 201A	Methods for Determining PM ₁₀ Emissions
EPA Methods 6, 6A, 6B, or 6C	Methods for Determining Sulfur Dioxide Emissions
Method 7, Method 7A, 7C, 7D, or 7E	Determination of Nitrogen Oxide Emissions
EPA Method 19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

G.26. Annual Compliance Tests. Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), this emissions unit shall be tested to demonstrate compliance with the emission limitations and standards for PM₁₀, nitrogen oxides, sulfur dioxide, carbon monoxide and visible emissions. The NO_x, SO₂ and CO RATA test data used may be used to demonstrate compliance with the annual test requirement, provided the testing requirements (notification, procedures & reporting) of Chapter 62-297, F.A.C. are met. [Rule 62-297.310(7), F.A.C.]

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- G.27. Compliance Tests Prior To Renewal.** Prior to permit renewal, compliance tests shall be performed for the following pollutants: VE, PM, CO, VOC, NO_x and SO₂. [Rule 62-297.310(7)(a)3., F.A.C.]
- G.28. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- G.29. Performance Tests and CEMS Certifications.** Annual compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.340, F.A.C., on CFB Boilers Nos. 1 and 2 while firing either coal or petroleum coke as indicated below. No stack tests are required if continuous emissions monitoring systems are used to demonstrate compliance pending EPA approval, otherwise initial performance tests shall be conducted as described above. Certification tests (or performance evaluations, as applicable) for all Continuous Emissions Monitoring System (CEMS) required by this permit must be completed within 60 days after achieving the maximum production rate at which each unit will be operated but not later than 90 days of initial operation, and prior to the initial stack tests for that Unit. No methods other than the ones identified below may be used for compliance testing unless prior DEP or the ERMD-EQD approval is received in writing. DEP or the ERMD-EQD may request a special compliance test pursuant to Rule 62-297.340(2), F.A.C., when, after investigation (such as complaints, increased visible emissions, or questionable maintenance of control equipment), there is reason to believe that any applicable emission standard is being violated. [0310045-003-AC/PSD-FL-265]
- G.30. Visible Emissions (Opacity).** Compliance with the visible emissions limit in Specific Condition **G.9.** shall be demonstrated with continuous opacity monitors installed, certified, operated, and maintained in accordance with 40 CFR Part 75, based on 6-minute block averages and excluding periods of startup, shutdown, and malfunction. [0310045-003-AC/PSD-FL-265]
- G.31. Sulfur Dioxide.**
- Compliance with sulfur dioxide (SO₂) emissions limits in Specific Condition **G.10.a.** shall be demonstrated with Continuous Emissions Monitoring Systems (CEMS) installed, certified, operated and maintained in accordance with 40 CFR Part 75, based on 24-hour block and 30-day rolling averages, as applicable, and excluding periods of startup, shutdown, and malfunction. Emissions recorded in parts per million shall be converted to lb/MMBtu using an appropriate F-factor for purposes of determining compliance with the emission limits in Specific Condition **G.10.a.**
 - Compliance with the annual SO₂ emission limit in Specific Condition **G.10.b.** shall be determined based on SO₂ data from the CEMS. Emissions during periods of startup, shutdown, and malfunction shall be considered in determining the total annual emissions.
 - At least three (3) hours of data are required to establish a 24-hour average for CEMS data. [Applicant's request; 0310045-012-AC/PSD-FL-265B; and, 0310045-015-AC/PSD-FL-265C]
- G.32. Oxides of Nitrogen.**
- Compliance with the oxides of nitrogen (NO_x) emissions limit in Specific Condition **G.11.a.** shall be demonstrated with a CEMS installed, certified, operated and maintained in accordance with 40 CFR Part 75, based on a 30-day rolling average and excluding periods of startup, shutdown and malfunction. The 30-day rolling averages will be determined based on hourly values calculated in accordance with Appendix F of 40 CFR Part 75.
 - Compliance with the annual NO_x emissions limit in Specific Condition **G.11.b.** shall be determined by summing the products of hourly NO_x emission rate and heat input rate data from the CEMS. Emissions during periods of startup, shutdown, and malfunction shall be considered in determining the total emissions. [Applicant's request; and, 0310045-015-AC/PSD-FL-265C]

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G.33. Particulate Matter.

- a. Annual compliance tests shall be performed on CFB Boilers Nos. 1 and 2 using EPA Methods 201 or 201A, to determine compliance with the particulate matter-10 microns or smaller (PM₁₀) limits in Specific Condition **G.12.b.** while firing petroleum coke. If petroleum coke has been fired for less than 400 hours during the previous federal fiscal year, the annual testing may be performed while firing coal.
- b. Compliance with the annual particulate matter (PM) emissions limit in Specific Condition **G.12.c.** shall be determined using the following formula. This formula shall be used for each fuel consumed by each of CFB Boilers Nos. 1 and 2 and existing Boiler No. 3, and the resulting PM emissions summed to obtain a 12-month total for CFB Boilers Nos. 1 and 2 and existing Boiler No. 3.

$$\text{PM Emissions} = (\text{Fuel Usage}^a) \times (\text{Emission Factor}^b) \times \text{unit conversion factors}$$

Where:

- ^a The "Fuel Usage" shall be measured by calibrated fuel flow meters (± 5 percent accuracy) and recorded daily when a unit is operated.
- ^b An "Emissions Factor" of $[(9.19 \times \text{weight percent sulfur content}) + 3.22]$ pounds per thousand gallons (lbs/10³ gal) shall be used for fuel oil burned in existing Boiler No. 3. The weight percent sulfur content shall be determined based on an analysis of a representative sample of the fuel oil being consumed. The analysis shall be performed using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition. An "Emissions Factor" of 5 pounds per million cubic feet (lb/MCF) shall be used for natural gas burned in existing Boiler No. 3. For Repowered Units 1 and 2, the "Emissions Factor" shall be based on particulate matter stack test results using EPA Methods 5, 5B, 8, 17, or 29 for the individual units, and shall apply to the quantities of fuel consumed in the individual units during the period immediately following the stack tests for the respective units until subsequent stack tests are completed.

[0310045-003-AC/PSD-FL-265]

G.34. Carbon Monoxide.

- a. Compliance with the short-term carbon monoxide (CO) limit in Specific Condition **G.13.** shall be demonstrated with CEMS installed, calibrated, operated, and maintained in accordance with 40 CFR Part 60, Appendix B based on a 24-hour block average and excluding periods of startup, shutdown, and malfunction.
- b. Compliance with the annual CO limit in Specific Condition **G.13.** shall be demonstrated by summing the products of hourly CO emission rate and heat input rate data from the CEMS. Emissions during periods of startup, shutdown, and malfunction shall be considered in determining the total emissions.

[0310045-003-AC/PSD-FL-265]

- G.35. Valid Data.** For the continuous monitoring systems required under Specific Conditions **G.31.a.**, **G.32.a.**, and **G.34.a.**, the permittee shall determine compliance based on CEMS data at the end of each operating day (midnight to midnight), new 24-hour block and 30-day average emission rates shall be calculated from the arithmetic average of all valid hourly emission rates during the previous 24-hours or 30 operating days, as appropriate. Valid hourly emission rates shall not include periods of startup, shutdown, or malfunction as defined in Rule 62-210.200, F.A.C., where emissions exceed the standards in Table 1 (See Specific Condition **G.8.**). These excess emission periods shall be reported as required in 40 CFR 60.7. A valid hourly emission rate shall be calculated for each hour in which at least two concentrations are obtained at least fifteen (15) minutes apart. [0310045-003-AC/PSD-FL-265]

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- G.36. Volatile Organic Compounds.** Compliance tests shall be performed on Units 1 and 2 using EPA Method 18, 25, or 25A to determine compliance with the volatile organic compound (VOC) emission limit in Specific Condition **G.14.** while firing petroleum coke. Compliance testing shall be conducted once within every five (5) years thereafter while firing petroleum coke or coal. Compliance with the CO limits based on CEMS data shall be used as surrogates to indicate compliance with the VOC limits. [0310045-003-AC/PSD-FL-265]
- G.37. Lead.** Initial compliance tests only shall be performed on Unit 2 using EPA Method 12 or 29 to determine compliance with the lead emission limit in Specific Condition **G.15.** while firing coal and while firing petroleum coke. An additional compliance test shall be conducted once every five years at permit renewal on one of the units while firing petroleum coke or coal or any mix of the two fuels and with the SDA down for maintenance. On July 28, 2009, a compliance test for lead was conducted on approximately 80 percent pet coke and 20 percent coal with the SDA down for maintenance. Subsequently, if the normal fuel mix to the CFB boilers is changed to 25 percent (or greater) coal for a period of more than 15 days, and the SDA requires scheduled maintenance, then an additional compliance test shall be conducted at a typical fuel mix within 60 days after the change is made and while the SDA is down for maintenance. [Rule 62-4.070(3), F.A.C.; and 0310045-022-AC/PSD-FL-265E, specific condition 37.]
- G.38. Sulfuric Acid Mist.** Initial compliance tests only shall be performed on Unit 2 using EPA Method 8 to determine compliance with the sulfuric acid mist emission limit in Specific Condition **G.16.** while firing petroleum coke and while firing coal. In addition, compliance with the SO₂ limits based on CEMS data shall be used as a surrogate to indicate compliance with the sulfuric acid mist limit. [0310045-003-AC/PSD-FL-265]
- G.39. Hydrogen Fluoride.** Initial compliance tests only shall be performed on CFB Boiler No. 2 using EPA Method 13A or 13B to determine compliance with the hydrogen fluoride emission limit in Specific Condition **G.17.** while firing coal and while firing petroleum coke. [0310045-003-AC/PSD-FL-265]
- G.40. Mercury.** Initial compliance tests only shall be performed on CFB Boiler No. 2 using EPA Methods 29, 101, or 101A to determine compliance with the mercury emission limit in Specific Condition **G.18.** while firing coal and while firing petroleum coke. [0310045-003-AC/PSD-FL-265]
- G.41. Distillate No. 2 Fuel Oil - Sulfur Content.** Vendor or other fuel sampling and analysis data (using applicable ASTM methods) shall be used to determine that the sulfur content of the No. 2 fuel oil used in CFB Boilers Nos. 1 and 2 does not exceed 0.05%, by weight. [Rule 62-210.200, Definitions - PTE, F.A.C.; and, 0310045-003-AC/PSD-FL-265]
- G.42. 5-Year Emissions Monitoring - PSD Avoidance Requirements:**
- a. Monitoring. The permittee shall monitor the emissions of any PSD pollutant that the Department identifies could increase as a result of the construction or modification and that is emitted by any emissions unit that could be affected; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change. The change (proposed project) shall not increase the design capacity of any emissions unit or its potential to emit that PSD pollutant. Emissions shall be computed in accordance with Rule 62-210.370, F.A.C.
 - The Department identified the following PSD pollutants that could increase from this project: **NO_x**, **PM** and **VOC**.
 - The permittee shall use the same calculation methodology for emissions before and after the completed project under Permit No. 0310045-037-AC.

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[Rule 62-212.300(1)(e)1., F.A.C.]

b. Reporting. The permittee shall report to the Department by March 1st based on the records required to be generated under subparagraph 62-212.300(1)(e)1., F.A.C., setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:

- (1) The name, address and telephone number of the owner or operator of the major stationary source;
- (2) The specific dates for commencement of the project and completion of the project;
- (3) The annual emissions as calculated pursuant to subparagraph 62-212.300(1)(e)1., F.A.C.;
- (3) If the emissions differ from the preconstruction projection, an explanation as to why there is a difference;
- (4) Any other information that the owner or operator wishes to include in the report;
- (5) The baseline actual emissions to which the annual emissions were compared to; and,
- (6) For the Department identified PSD pollutants: a statement indicating whether or not the applicable PSD significant emission rates (SERs) defined in Rule 62-210.200, F.A.C., were exceeded, specifically, 40 TPY for NO_x, 25 TPY for PM, and 40 TPY for VOC. If and when a PSD SER is exceeded, the permittee shall submit a PSD permit application with a BACT analysis or if the permittee determines that a PSD permit application with a BACT analysis is not required, the permittee shall provide specific citations as to why the project is exempt from a PSD permit application with a BACT analysis.

[Rule 62-212.300(1)(e)2., F.A.C.; and, Rule 62-4.070(1)&(3), *Reasonable Assurance*, F.A.C.; Rule 62-4.030, *General Prohibition*, F.A.C.; and, Rule 62-4.210, *Construction Permits*, F.A.C.]

c. Recordkeeping. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1. and 2., F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

[Rule 62-212.300(1)(e)3., F.A.C.]

d. Source Obligation. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12)(c), F.A.C.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

G.43. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	G.49.
Quarterly Excess Emissions, if requested by the ERMD-EQD	Every 3 months (quarter)	G.44.

[40 CFR 60 Subpart A; and, Rule 62-210.700(6), F.A.C.]

G.44. Plant Operation - Problems. If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, JEA shall notify the ERMD-EQD as soon as possible, but at least within one (1) working day, excluding weekends and holidays. The notification

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shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

G.45. Excess Emissions Report.

- a. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD.
- b. If excess emissions occur due to malfunctions for a period of more than two hours, the owner or operator shall notify ERMD-EQD within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may require a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A.

[0310045-003-AC/PSD-FL-265; and, Rule 62-210.700(6), F.A.C.]

G.46. Records. All measurements, records, and other data required to be maintained by JEA shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP and ERMD-EQD representatives upon request. [Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.; and, 0310045-003-AC/PSD-FL-265]

G.47. Certification Testing of Monitors. As required under the federal Acid Rain Program, the Acid Rain Monitoring Plan for NGS shall be revised to address the new Continuous Emissions Monitoring Systems (CEMS) for sulfur dioxide, oxides of nitrogen, and visible emissions (opacity) for Repowered NGS Units 1 and 2. The permittee shall provide a copy of this revised plan, as well as model and serial numbers for each of the monitors, to ERMD-EQD within 45 days after completion of all certification tests. In addition, the permittee shall provide notification that the carbon monoxide CEMS meet the performance specifications in 40 CFR Part 60, Appendix B (as applicable), and also provide model and serial numbers to ERMD-EQD within 45 days after completion of the performance specification tests. [0310045-003-AC/PSD-FL-265]

G.48. Quarterly Compliance Reports for Annual Limits. The permittee shall provide reports quarterly to the ERMD-EQD certifying compliance with the 12-month rolling limits on SO₂, NO_x and PM (TSP) for NGS CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 set forth in Specific Conditions **G.10.b.**, **G.11.b.**, and **G.12.c.** The reports shall be submitted within 45 days after the last day of each calendar quarter. [0310045-003-AC/PSD-FL-265]

General Operation Requirements

G.49. Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Miscellaneous

G.50. NSPS Requirements - Subpart A. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

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40 CFR 60.7, Notification and Recordkeeping

40 CFR 60.8, Performance Tests

40 CFR 60.11, Compliance with Standards and Maintenance Requirements

40 CFR 60.12, Circumvention

40 CFR 60.13, Monitoring Requirements

40 CFR 60.19, General Notification and Reporting requirements,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

G.51. NSPS Requirements - Subpart Da. Except as otherwise provided in this permit, the combustion turbine shall comply with all applicable provisions of 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted by reference in Rule 62-204.800(8)(b)2., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.47a. These emissions units shall comply with **Appendix 40 CFR 60 Subpart Da** included with this permit. [Rule 62-204.800(8)(b)2., F.A.C.]

G.52. Engineering Study to increase the Reliability and Availability of the SDA System. The permittee shall provide an engineering study by December 31, 2010 to the Department and EQD detailing opportunities to increase the reliability and availability of the SDA system. The study will address potential improvements in preventive and predictive maintenance, and potential equipment and system modifications (including opportunities for redundancy) which will result in minimizing the amount of time the SDA is off-line during CFB operation. The engineering study shall also include the cost estimates associated with potential equipment/system modifications (including opportunities for redundancy) and the cost effectiveness of the associated emissions reductions. [Rule 62-4.070(3), F.A.C.; and 0310045-022-AC/PSD-FL-265E, specific condition 49.]

G.53. Compliance Plan. Permit Number 0310045-027-AC authorized the combustion of landfill gas in the CFB Boiler Nos. 1 and 2.

a. Operation of the emissions units beyond the time frames established by the AC permit is allowed, provided the Department has received and verified properly signed and sealed certification statements from the Responsible Official (R.O.) and a licensed Florida Professional Engineer (P.E.) stating that: 1) the construction and modifications of the emissions units were completed in accordance with the AC permit; and, 2) compliance with the terms and conditions contained within the AC permit have properly been demonstrated prior to the expiration date of the AC permit.

b. The P.E. and R.O. certification statements from DEP Form No. 62-210.900(1) shall be used and must be submitted to the Department within 105 days after achieving the maximum rate at which the emissions units will be operated, but no later than 180 days after initially burning landfill gas in the boilers.

[Rules 62-213.440(2), and 62-213.420(1)(a)5., F.A.C.]

G.54. Source Obligation. A relaxation of the specific terms and conditions of this permit, as established by Permit No. 0310045-027-AC, may subject the facility to a BACT determination. Specifically, an increase in the quantity of landfill gas burned and/or the H₂S content of the landfill gas could trigger a BACT determination. {See Rule 62-212.400(12)(a) - (c), F.A.C.} Any request to change the specific terms and conditions of Permit No. 0310045-027-AC must be submitted to the Bureau of Air Regulation in the Division of Air Resource Management of the Florida Department of Environmental Protection. [Rule 62-212.400(12)(a) - (c) (Source Obligation), F.A.C.; and, Permit No. 0310045-027-AC, specific condition 3.A.1.]

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Landfill Gas - Miscellaneous Requirements

G.55. Fuel Consumption Records. The permittee shall maintain, for each boiler, a daily log of the amount of landfill gas fired. [Rules 62-4.070(1) and (3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Permit No. 0310045-027-AC.]

G.56. Test Reports. For each test run, the report shall also indicate the quantity of landfill gas burned. [Rule 62-297.310(8), F.A.C.; and, Permit No. 0310045-027-AC.]

G.57. Annual Operating Report (AOR). The permittee shall submit the quantity of landfill gas combusted in each boiler with the AOR. [Rules 62-4.070(1) and (3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Permit No. 0310045-027-AC.]

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SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Units -028, -029, -031, -033 thru -038, -042 & -051 thru -053

The specific conditions in this section apply to the following emissions units:

E.U. ID No.	Brief Description
-028	NGS: Materials Handling and Storage Operations
-028	Belt Conveyor No. 1
-028a	Vessel Hold, Vessel Unloader and Spillage Conveyor
-028c	Transfer Building 1
-028d	Transfer Building 5 and limestone loadout chute
-028g	Transfer Building 2
-028h	Fuel Storage Domes A & B (includes fuel stackers/reclaimers)
-028i	Transfer Building 3
-028o	Plant Transfer Building
-028p	Limestone Storage Pile and Limestone Reclaim Hoppers
-028q	Transfer Building 4
-028v	Transfer Building 6
-029	NGS: Crusher House Building Baghouse Exhaust
-031	NGS: Fuel Silos Dust Collectors
-033	NGS: Limestone Dryers/Mills Building
-034	NGS: Limestone Prep Building Dust Collectors
-035	NGS: Limestone Silos Bin Vent Filters
-036	NGS: Fly Ash Transport Blower Discharge
-037	NGS: Fly Ash Silos Bin Vents
-038	NGS: Bed Ash Silos Bin Vents
-042	NGS: AQCS Pebble Lime Silo
-051	NGS: Fly Ash Slurry Mix System Vents
-052	NGS: Bed Ash Slurry Mix System Vents
-053	NGS: Bed Ash Surge Hopper Bin Vents

The material handling and storage operations process ash, limestone, coal, coal coated with latex, and petroleum coke to support the operation of CFB Boilers Nos. 1 and 2. Each materials handling and storage operation at NGS employs one or more control strategies to limit emissions of particulate matter to meet specific emission limitations and/or visible emissions limits. The control strategies include the use of best operating/design practices, total or partial enclosures, conditioned materials, wet suppression, water sprays, and dust collection systems. Except for the Belt Conveyor 1, all conveyors are enclosed. The fly and bed ash silos (E.U. ID No. -037 and E.U. ID No. -038) have the capability to unload into either trucks or rail cars

{Permitting notes: Emission Unit ID Nos. -029 & -031 are regulated under 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants (coal handling at NGS, excluding open storage piles), adopted and incorporated by reference in Rule 62-204.800(8)(b)31., F.A.C. Emission Unit ID Nos. -033, -034 & -035 are regulated under Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (limestone handling at NGS, except for open storage piles and truck unloading), adopted and incorporated by reference in Rule 62-204.800(8)(b)64., F.A.C.

Some of these emissions units are regulated under Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD; PSD-FL-265; 0310045-007-AC/PSD-FL-265A; and, 0310045-012-AC/PSD-FL-265B]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination; and, Rule 62-296.711,

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F.A.C., Reasonable Available Control Technology (RACT) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations.}

Essential Potential to Emit (PTE) Parameters

H.1. Permitted Capacity.

- a. Throughput Rates. The materials handling and usage rates for coal, coal coated with latex, petroleum coke, and limestone at NGS shall not exceed the following (for NGS CFB Boilers Nos. 1 and 2 combined), assuming a moisture content of 5.5% or less:

Handling/Usage Rate

<u>Material</u>	<u>Tons Per Year</u>
Coal/Coal coated with latex/Petroleum Coke	2.42 million
Limestone	1.45 million

- b. Heat Input Rates. The maximum heat input rates to the three limestone dryers shall not exceed 57.9 MMBtu/hr, for all three units combined. These rates are included only for purposes of determining capacity during compliance stack tests. Continuous compliance with these rates is not required; capacity during compliance testing shall be determined based on fuel flow data and the as-fired heat content of the fuel.

[Rule 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; 0310045-003-AC/PSD-FL-265; and, 0310045-012-AC/PSD-FL-265B]

H.2. Hours of Operation. The Materials Processing Operations are allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200 (Definitions - PTE), F.A.C.; Part III, Rule 2.301, JEPB]

H.3. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

H.4. Method of Operation.

- a. Material Processing Operations. The emissions units either process or transfer materials used in the operations of NGS's CFBs Boilers Nos. 1 and 2. The transfer buildings (TBs) are numbered sequentially as they occur in the process with TB 1 being the TB nearest the vessel unloading operations and TB 5 being the TB immediately upstream of the fuel storage buildings and the limestone storage pile. TBs 1 thru 5 are associated with the transfer of raw coal, pet coke and limestone, while TB 6 is associated with the transfer of raw coal and pet coke and the Plant TB is associated with the transfer of crushed coal and pet coke. Limestone loadout via telescopic chute is included with TB 5. Except for the Belt Conveyor 1, all conveyors are enclosed.

- b. Fuels. Limestone Dryers (3)(EU -033). Each limestone dryer is allowed to fire distillate fuel oil and Natural/Landfill Gases. The distillate fuel oil has a maximum sulfur content limit of 0.05%, by weight.

[Rule 62-213.410, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions Nos. **H.5.**, **H.6.** and **H.7.** are based on the specified averaging time of the applicable test method.

H.5. <intentionally left blank>

H.6. Particulate Matter. The maximum particulate matter emissions from the following operations shall not exceed 0.01 grains per dry standard cubic foot:

- a. Limestone dryers - each (3) (EU-033)

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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- b. Limestone prep building dust collectors (EU-034)
- c. Limestone silos bin vent filters (EU-035)
[0310045-003-AC/PSD-FL-265; and, 0310045-012-AC/PSD-FL-265B]

H.7. Visible Emissions. The materials processing sources at NGS shall be regulated as follows, and the emission limits and standards shall apply upon completion of the initial compliance tests for each of the emissions units or activities.

- a. The following materials handling sources shall be equipped with fabric filter controls and visible emissions shall not exceed 5 percent opacity:
 - (1) Crusher house building baghouse exhaust (EU-029)
 - (2) Fuel silos dust collectors (EU-031)
 - (3) Limestone dryers - each (3) (EU-033)
 - (4) Limestone prep building dust collectors (EU-034)
 - (5) Limestone silos bin vent filters (EU-035)
 - (6) Fly ash transport blower discharge (EU-036)
 - (7) Fly ash silos bin vents (EU-037)
 - (8) Bed ash silos bin vents (EU-038)
 - (9) AQCS pebble lime silo (EU-042)
 - (10) Fly ash slurry mix system vents (EU-051)
 - (11) Bed ash slurry mix system vents (EU-052)
 - (12) Bed ash surge hopper bin vents (EU-053)
- b. The following materials handling sources shall use wet suppression, water spray, coverings, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 5 percent opacity:
 - (1) Transfer towers (EU-028c, EU-028g, EU-028i, EU-028o, EU-028q and EU-028v)
 - (2) Coal, coal coated with latex and petroleum coke storage building (EU-028h)
 - (3) Transfer Building 5 and limestone loadout chute (EU-028d)
 - (4) Belt Conveyor No. 1 (EU-028)
- c. The following materials handling sources shall use wet suppression, water spray, partial enclosures, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 10 percent opacity:
 - (1) NGS dock vessel unloading operations - vessel hold (EU-028a)
 - (2) NGS dock vessel unloading operations - vessel unloader and spillage conveyor (EU-028a)
 - (3) Limestone storage pile (EU-028p)
 - (4) Limestone reclaim hopper (EU-028p)
- d. The limestone dryer/mill building shall have no visible emissions (other than from a baghouse vent).
[0310045-003-AC/PSD-FL-265; 0310045-007-AC/PSD-FL-265A; and, 0310045-012-AC/PSD-FL-265B]

H.8. Distillate Fuel Oil Sulfur Content. The maximum sulfur content of the distillate No. 2 fuel oil that is allowed to be fired in each of the three (3) limestone dryers (EU-033) is 0.05%, by weight. [0310045-003-AC/PSD-FL-265]

Excess Emissions

The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.

H.9. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered

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to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

H.10. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

H.11. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Method 5	Methods for Determining Particulate Matter Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions
EPA Method 22	Visual Determination of Fugitive Emissions from Material Sources

The above methods are described in Chapter 62-297, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

H.12. Annual Compliance Tests. Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), this emissions unit/points shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions. The testing frequency is established in the table in specific condition **H.19**. [Rule 62-297.310(7), F.A.C.]

H.13. Compliance Tests Prior To Renewal. Prior to permit renewal, compliance tests shall be performed for the following pollutants: VE. The testing frequency is established in the table in specific condition **H.19**. [Rule 62-297.310(7)(a)3., F.A.C.]

H.14. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

H.15. Limestone Dryers (3): Distillate No. 2 Fuel Oil - Sulfur Content. Vendor or other fuel sampling and analysis data (using applicable ASTM methods) shall be used to determine that the sulfur content of the No. 2 fuel oil used in the three (3) limestone dryers does not exceed 0.05%, by weight. [Rule 62-210.200 (Definitions - PTE), F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.16. Limestone Dryers (3) - Visible Emissions (EU-033). Compliance with the visible emissions limit in Specific Condition **H.7**. for the limestone dryers (each) shall be demonstrated using EPA Method 9 initially and once within every five years thereafter. The limestone dryers shall fire fuel oil during the initial compliance tests. In subsequent years, the testing shall be conducted annually if fuel oil has been fired for more than 400 hours during the previous federal fiscal year; otherwise, the testing shall be conducted once within every five years, even if the testing is conducted while firing natural gas. [0310045-003-AC/PSD-FL-265]

H.17. Limestone Dryers (3) - Particulate Matter (EU-033). Initial compliance tests only shall be performed on the limestone dryers (3) to determine compliance with the particulate matter limit in Specific Condition **H.6**. using EPA Method 5. [0310045-003-AC/PSD-FL-265]

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H.18. Particulate Matter. Initial compliance tests only shall be performed on the limestone prep building dust collectors (EU-034) and the limestone silos bin vent filters (EU-035) to determine compliance with their particulate matter limit specified in Specific Condition H.6. using EPA Method 5, 40 CFR 60, Appendix A. The minimum sample volume shall be 30 dry standard cubic feet. [0310045-003-AC/PSD-FL-265; 40 CFR 60, Appendix A; and, Rule 62-296.711(3)(b), F.A.C.]

H.19. Visible Emissions (VE). VE tests shall be conducted on the following emissions units to determine compliance with their applicable limits, as follows:

Emissions Units at NGS	EPA Method(s)	Duration of VE Test	Frequency	Material
Vessel Hold (EU-028a)	9	30 min	I only	C or PC
Vessel Unloader & Spillage Conveyors (EU-028a)	9	3 hr	I only	C & LS
Belt Conveyor No. 1 (EU-028)	9	3 hr	I only	C & LS
Transfer Towers (EU-028c, -028g, -028i, -028o, -028q & -028v)	9	3 hr	I only	C & LS
Fuel Storage Building (EU-028h)	9	30 min	I only	C or PC
Limestone Storage Pile (EU-028p)	9	30 min	I only	LS
NSPS - 000				
Limestone Prep Building Dust Collectors - Baghouse Exhaust (EU-034)	9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
Limestone Silos Bin Vent Filters - Baghouse Exhaust (EU-035)	9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
Limestone Dryer/Mill Building (EU-033)	22	IVE - 75 min	I only	LS
NSPS - Y				
Crusher House Building Baghouse Exhaust (EU-029)	9	IVE - 3 hr RVE - 30 min	I & R	C &/or PC
Fuel Silos Dust Collectors - Baghouse Exhaust (EU-031)	9	IVE - 3 hr RVE - 30 min	I & R	C &/or PC
Other				
Fly Ash Transport Blower Discharge - Baghouse Exhaust (EU-036)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Fly Ash Silos Bin Vents - Baghouse Exhaust (EU-037)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Bed Ash Silos Bin Vents - Baghouse Exhaust (EU-038)	9	IVE - 30 min RVE - 30 min	I & R	Ash
AQCS Pebble Lime Silo - Baghouse Exhaust (EU-042)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Fly Ash Slurry Mix System Vents - Baghouse Exhaust (EU-051)	9	IVE - 60 min RVE - 60 min	I & R	Ash
Bed Ash Slurry Mix System Vents - Baghouse Exhaust (EU-052)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Bed Ash Surge Hopper Bin Vents - Baghouse Exhaust (EU-053)	9	IVE - 60 min RVE - 60 min	I & R	Ash

C – Coal and/or Coal coated with latex

I – Initial R - Renewal (once every 5 years)

IVE – Initial Visible Emissions Test, RVE - Renewal Visible Emissions Test

LS – Limestone; PC-Petroleum Coke

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Note: No methods other than the ones identified above may be used for compliance testing unless prior DEP or the ERMD-AQD approval is received in writing.

[0310045-003-AC/PSD-FL-265; 0310045-007-AC/PSD-FL-265A; 0310045-012-AC/PSD-FL-265B; 0310045-021-AC/PSD-FL-265D; 40 CFR 60.11(b); 40 CFR 60, Appendix A; 0310045-021-AC; and 0310045-015-AC/PSD-FL-010G.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

H.20. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Quarterly Excess Emissions, if requested by the ERMD-EQD	Every 3 months (quarter)	H.22.

[40 CFR 60 Subpart A; and, Rule 62-210.700(6), F.A.C.]

H.21. Plant Operation - Problems. If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, JEA shall notify the ERMD-EQD as soon as possible, but at least within one (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.22. Excess Emissions Report. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD. [Rule 62-210.700(6), F.A.C.]

If excess emissions occur due to malfunctions for a period of more than two hours, the owner or operator shall notify ERMD-EQD within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may require a written summary report of the incident. For EUs -029, -031, -033, -034 and -035, and pursuant to the Standards of Performance for New Stationary Sources at 40 CFR 60, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [0310045-003-AC/PSD-FL-265]

H.23. Records. All measurements, records, and other data required to be maintained by JEA shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP and the ERMD-EQD representatives upon request. [Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.; and, 0310045-003-AC/PSD-FL-265]

General Operation Requirements

H.24. Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Units -028, -029, -031, -033 thru -038, -042 & -051 thru -053

devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.; and, 0310045-003-AC/PSD-FL-265]

- H.25. NSPS Requirements - Subpart A.** Emission Unit Nos. -029, -031, -033, -034 & -035 shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions including:
- 40 CFR 60.7, Notification and Recordkeeping
 - 40 CFR 60.8, Performance Tests
 - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
 - 40 CFR 60.12, Circumvention
 - 40 CFR 60.13, Monitoring Requirements
 - 40 CFR 60.19, General Notification and Reporting requirements,
- adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]
- H.26. NSPS Requirements - Subpart Y.** Except as otherwise provided in this permit, this emissions unit/points (Emission Unit Nos. -029 & -031) shall comply with all applicable provisions of 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants (coal handling at NGS, excluding open storage piles), adopted and incorporated by reference in Rule 62-204.800(8)(b)31., F.A.C. This emissions unit/points shall comply with **Appendix 40 CFR 60 Subpart Y** included with this permit. [Rule 62-204.800(8)(b)2., F.A.C.]
- H.27. NSPS Requirements - Subpart OOO.** Except as otherwise provided in this permit, these emissions units/points (Emission Unit Nos. -033, -034 & -035) shall comply with all applicable provisions of 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (limestone handling at NGS, except for open storage piles and truck unloading), adopted and incorporated by reference in Rule 62-204.800(8)(b)64., F.A.C. These emissions units/points shall comply with **Appendix 40 CFR 60 Subpart OOO** included with this permit. [Rule 62-204.800(8)(b)64., F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection I. Emissions Unit -044 - -050

The specific conditions in this section apply to the following emissions units:

E.U. ID No.	Brief Description
-044	Separator A Filter - Receiver Vent
-045	Separator B Filter - Receiver Vent
-046	Separator Dust Collector Vent
-047	Clean-up Vacuum Vent
-048	Fly Ash Surge Bin Vent
-049	Mineral Additive Storage Bin Vent
-050	Gas-Fired Dryer Stack

Separations Technology, LLC (ST) has constructed, owns and operates a fly ash processing system on a portion of leased property at the JEA SJRPP facility in Duval County, Florida. The purpose of the equipment is to remove the residual carbon and ammonia from the SJRPP fly ash leaving a saleable product. As a result, environmental benefits include a 255,000 ton reduction in the fly ash currently sent to landfill by the JEA SJRPP each year and an overall reduction in the ammonia releases with the recovery and subsequent recycle of ammonia removed from the fly ash.

The fly ash processing system includes the addition of two fly ash receiving bins, a carbon separation unit, a clean-up vacuum, a fly ash surge bin, a mineral additive storage bin, and a gas-fired dryer. The particulate emissions generated from handling of the fly ash are collected from each source using pulse jet fabric filters. ST's triboelectric carbon separation technology partitions fly ash into mineral-rich and carbon-rich fractions. The mineral-rich fly ash can then be sold as a usable product. The carbon-rich fly ash is returned to the JEA SJRPP fly ash storage silos for eventual disposal at the onsite landfill or transported offsite.

The two-step beneficiation process consists of (1) removal of the residual carbon from the fly ash using ST's patented electrostatic separation technology, and (2) removal of residual ammonia from the fly ash using ST's ammonia removal technology (patent pending). In addition to residual carbon, the fly ash at the JEA SJRPP also contains trace amounts of ammonia that makes it unsuitable as a cement replacement. To solve this problem, ST installed an ammonia removal process. The recovered ammonia is subsequently returned to the JEA SJRPP for recycle.

{Permitting notes: The emissions units are permitted under Rule 212.400, F.A.C., Prevention of Significant Deterioration [PSD; 0310001-002-AC/PSD-FL-010(D)]; Rule 62-296.711, F.A.C., Reasonable Available Control Technology - Materials Handling, Sizing, Screening, Crushing and Grinding Operations; and, Rule 62-296.712, F.A.C., Reasonable Available Control Technology (RACT) -Miscellaneous Manufacturing Process Operations.}

Essential Potential to Emit (PTE) Parameters

- I.1. **Equipment Design Capacity.** The equipment design of the fly ash processing operation is based on a maximum fly ash delivery rate from JEA SJRPP of 300,000 tons per year. [Rule 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.]
- I.2. **Hours of Operation.** The operations are allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200 (Definitions - PTE), F.A.C.; 0310001-002-AC/PSD-FL-010(D)]
- I.3. **Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- I.4. **Method of Operation.**

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection I. Emissions Unit -044 - -050

- a. Fly Ash Processing Operations. The operation processes fly ash from the JEA SJRPP facility. The two-step beneficiation process consists of (1) removal of the residual carbon from the fly ash using ST's patented electrostatic separation technology, and (2) removal of residual ammonia from the fly ash using ST's ammonia removal technology (patent pending). In addition to residual carbon, the fly ash at the JEA SJRPP also contains trace amounts of ammonia that makes it unsuitable as a cement replacement. To solve this problem, ST installed an ammonia removal process. The recovered ammonia is subsequently returned to the JEA SJRPP for recycle.
- b. Fuel: For the boiler, the only fuel allowed to be fired is natural gas.
[Rule 62-213.410, F.A.C.; and, 0310001-002-AC/PSD-FL-010(D)]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions Nos. **I.5.** and **I.6.** are based on the specified averaging time of the applicable test method.

I.5. Particulate Matter. The maximum particulate matter emissions from the following operations shall not exceed:

- a. 0.015 grains per dry standard cubic foot:
 - (1) Separator A Filter - Receiver Vent (EU-044)
 - (2) Separator B Filter - Receiver Vent (EU-045)
 - (3) Separator Dust Collector Vent (EU-046)
 - (4) Clean-up Vacuum Vent (-047)
 - (5) Fly Ash Surge Bin Vent (-048)
 - (6) Mineral Additive Storage Bin Vent (-049)
- b. 1.60 lbs/hr:
 - (1) Gas-Fired Dryer Stack (EU-050)
- c. Visible Emissions. Visible emissions less than or equal to 5 percent opacity shall be considered in compliance with the particulate matter emissions limits established above.
[0310001-002-AC/PSD-FL-010(D)]

I.6. Visible Emissions.

- a. Visible emissions shall not exceed 5 percent opacity for EU-044 thru EU-050.
- b. Annual compliance certification shall be conducted to measure opacity.
[0310001-002-AC/PSD-FL-010(D)]

Excess Emissions

The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.

- I.7.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- I.8.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection I. Emissions Unit -044 - -050

Test Methods

I.9. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

I.10. Annual Compliance Tests. Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), this emissions unit/points shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions. [Rule 62-297.310(7), F.A.C.]

I.11. Compliance Tests Prior To Renewal. Prior to permit renewal, compliance tests shall be performed for the following pollutants: VE. [Rule 62-297.310(7)(a)3., F.A.C.]

I.12. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

I.13. Visible Emissions (VE). Annual compliance certification shall be conducted using EPA Method 9 tests to measure opacity. [0310001-002-AC/PSD-FL-010(D); and, 40 CFR 60, Appendix A; and, Rules 62-296.711(3)(a) and 62-296.712(3)(a), F.A.C.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

I.14. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Quarterly Excess Emissions, if requested by the ERMD-EQD	Every 3 months (quarter)	I.16.

[Rule 62-210.700(6), F.A.C.]

I.15. Plant Operation - Problems. If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, ST shall notify the ERMD-EQD as soon as possible, but at least within one (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]

I.16. Excess Emissions Report. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD. [Rule 62-210.700(6), F.A.C.]

ATTACHMENT JEA-EU1-IV3
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT JEA-EU1-IV3 ALTERNATIVE METHODS OF OPERATION

Emissions Unit 003 (NGS Boiler No. 3) is allowed to burn natural gas, liquefied petroleum (LP) gas, landfill gas, new No. 6 fuel oil, "on-specification" used oil, and a blend of fuel oil and natural gas and/or landfill gas. Firing of "on-specification" used oil containing any quantifiable levels of polychlorinated biphenyls (PCBs) is allowed when the emissions unit is at normal operating temperatures. LP gas is used as the igniter fuel when natural gas is not available.

The emission unit may operate continuously for 8,760 hours per year.

EMISSIONS UNIT INFORMATION

Section [2]

NGS - Combustion Turbine Nos. 3, 4, 5, and 6

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 [2]

NGS - Combustion Turbine Nos. 3, 4, 5, and 6

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:
NGS Combustion Turbine (CT) Nos. 3, 4, 5 and 6.

3. Emissions Unit Identification Number: **006 through 009**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date: CT No. 3: Feb 1975 CT No. 4: Jan 1975 CT No. 5: Feb 1974 CT No. 6: Dec 1974	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)
- Acid Rain Unit
- CAIR Unit

9. Package Unit:
Manufacturer: **General Electric** Model Number: **MS 7000**

10. Generator Nameplate Rating: **224.8 MW (56.2 MW/CT)**

11. Emissions Unit Comment:

EMISSIONS UNIT INFORMATION

Section [2]

NGS - Combustion Turbine Nos. 3, 4, 5, and 6

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [2]

NGS - Combustion Turbine Nos. 3, 4, 5, and 6

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:	3,604 (LHV) 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 is based on 901.0 MMBtu/hr (LHV) for each CT. Operation of inlet foggers is limited to 399 hr/yr (Permit No. 0310045-006-AC).

EMISSIONS UNIT INFORMATION

Section [2]

NGS - Combustion Turbine Nos. 3, 4, 5, and 6

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: EU006 through EU009		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Each CT is served by a single exhaust stack.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet	
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: 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:			

EMISSIONS UNIT INFORMATION

Section [2]

NGS - Combustion Turbine Nos. 3, 4, 5, and 6

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Distillate Oil: Grade 2 Oil		
2. Source Classification Code (SCC): 2-01-001-01		3. SCC Units: 1,000 Gallons burned
4. Maximum Hourly Rate: 27.72	5. Maximum Annual Rate: 242,827	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.5	8. Maximum % Ash:	9. Million Btu per SCC Unit: 130 (LHV)
10. Segment Comment: Maximum rates based on the maximum heat input rate of 901 MMBtu/hr/CT. Maximum hourly rate=901 MMBtu/hr/CT/(130 MMBtu/kgal) x 4 CTs = 27.72 kgal/hr Maximum annual rate=27.72 kgal/hr x 8,760 hr/yr = 242,827 kgal/yr Maximum sulfur content limited by permit No. 0310045-038-AV.		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION

Section [2]

NGS - Combustion Turbine Nos. 3, 4, 5, and 6

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			NS
CO			NS
PM			NS
PM10			NS
SO2			EL
H095			NS
H113			NS
HAPS			NS

**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: 1,968.3 lb/hour 8,621.2 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: Maximum 0.5% sulfur content for No. 2 fuel oil Reference: Permit No. 0310045-038-AV		7. Emissions Method Code: 2	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential hourly emissions = 4 CTs x 901 MMBtu/hr/CT/ (130 MMBtu/kgal) x 7.1 lb/gal x 1,000 gal/kgal x 0.5/100 x (64/32) = 1,968.3 lb/hr Potential annual emissions = 1,968.3 lb/hr x 8760 hr/yr / (2,000 lb/ton) = 8,621.2 TPY			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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: Maximum Sulfur content of 0.5%	4. Equivalent Allowable Emissions: 1,968.3 lb/hour 8,621.2 tons/year
5. Method of Compliance: Evaluating fuel sulfur content	
6. Allowable Emissions Comment (Description of Operating Method): Equivalent emissions for all four CTs.	

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 [2]

NGS - Combustion Turbine Nos. 3, 4, 5, and 6

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: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: DEP Method 9	
5. Visible Emissions Comment: Visible emissions from each combustion turbine shall not be equal to or greater than 20 percent opacity. (Rule 62-296.320(4)(b)1., F.A.C.)	

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: None	
5. Visible Emissions Comment: FDEP Rule 62-210.700(1) allows up to 100% for 2 hr (120 minutes) per 24-hour period for startup, shutdown or malfunction.	

EMISSIONS UNIT INFORMATION

Section [2]

NGS - Combustion Turbine Nos. 3, 4, 5, and 6

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

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:	

Continuous Monitoring System: Continuous Monitor ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [2]

NGS - Combustion Turbine Nos. 3, 4, 5, and 6

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU2-I1</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU2-I2</u> <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I4</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I5</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: <u>VE</u> <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [2]

NGS - Combustion Turbine Nos. 3, 4, 5, and 6

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 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 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 type="checkbox"/> Not Applicable

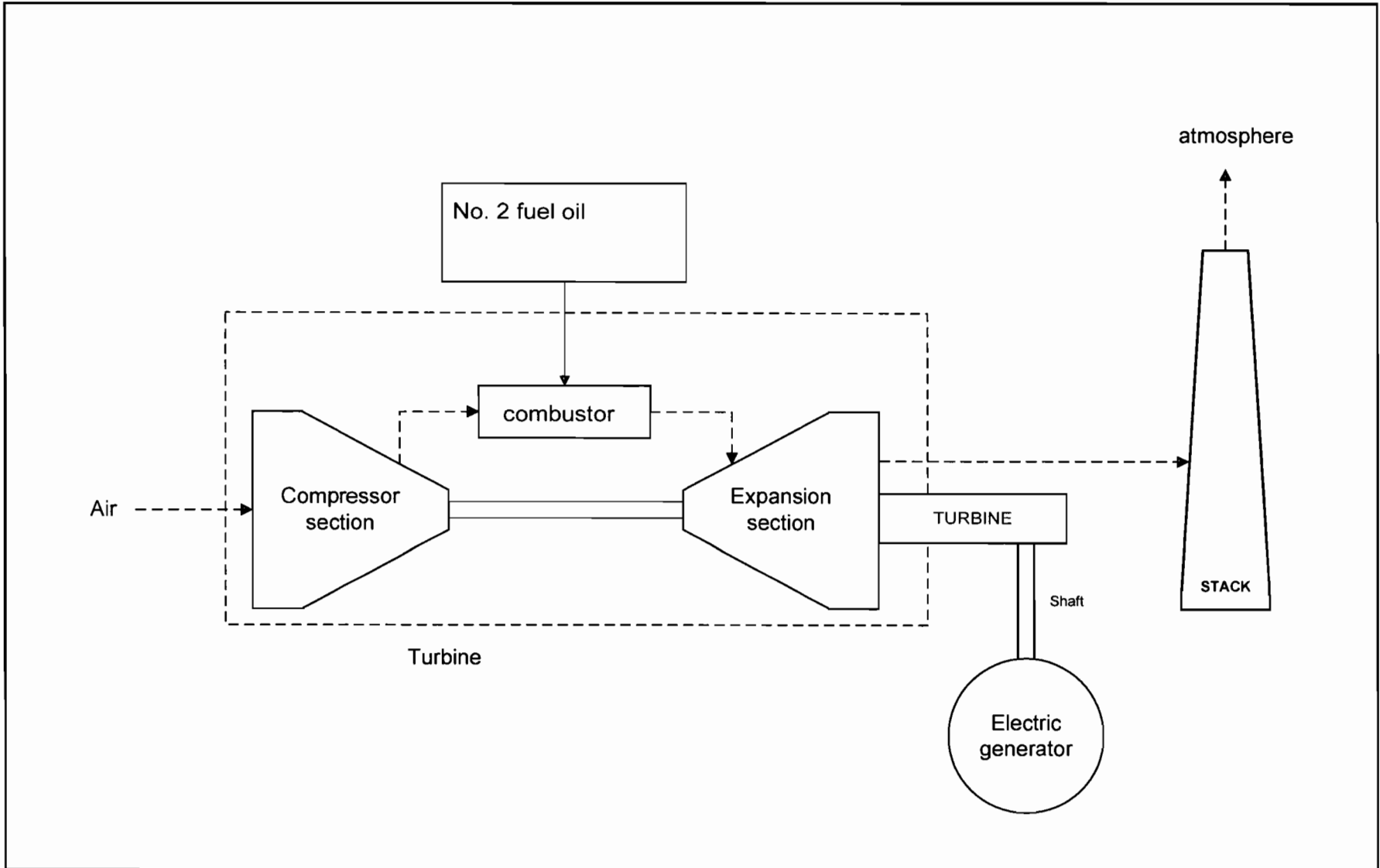
Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-IV1</u>
2. Compliance Assurance Monitoring: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation: <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU2-IV3</u> <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

--

ATTACHMENT JEA-EU2-I1
PROCESS FLOW DIAGRAM



Attachment JEA-EU2-11
Process Flow Diagram
Northside Generating Station Combustion Turbines
Nos. 3 - 6 (EU 006 - 009)

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



ATTACHMENT JEA-EU2-I2
FUEL ANALYSIS

JEA / JACKSONVILLE ELECTRIC AUTHORITY
 P.O. BOX 4910
 32201-4910 JACKSONVILLE FL
 United States



FAST TO THE POINT.
 SAYBOLT LP
 2610 S. Federal Hwy
 Ft Lauderdale, Florida
 33316
 Phone: (954)524-8772
 Fax: (954)524-2377
 E-mail: Saybolt.flauderdate@corelab.com
 Handled by: Armando Mejia

Report no. 13062/3128A.01.1/12
 Report date 02/Jan/2013
 Object JEA QUARTERLY INVENTORY
 Product #2 Diesel
 Location Jacksonville, FL, JEA Northside Plant
 Outturn Date 31/Dec/2012

CERTIFICATE OF ANALYSIS

Sample submitted as #2 Diesel
 Received Sampled by Saybolt Inspector
 Marked JEA Northside Plant - Tank# 12
 Date of sampling 31/Dec/2012
 Testing completed 10/Jan/2013 Time
 Sealed Open
 Lab number 1487

Test	Analyte	Unit	Method	Specification	Result	
					Prefix	Figure
API Gravity at 60°F	API Gravity	API	ASTM D 287	Report		35.4
Heat of Combustion	Heat of Combustion	BTU/Gal	ASTM D 240	Report		138159
Sulfur X-Ray	Sulfur total	m/m%	ASTM D 4294	Report		0.012
Ash	Ash	m/m%	ASTM D 482	Report		0.001
Nitrogen	Nitrogen	mg/kg	ASTM D 5762	Report		27
Bacterial Growth	Bacterial Growth	Count/ml	LiquidCult	Report		< 100
Fungal Growth	Fungal growth	Count/ml	LiquidCult	Report		< 10

Precision parameters apply in the evaluation of the test results specified above. Please also refer to ASTM D3244 (except for analysis of RFG), IP367 and appendix E of IP standard methods for analysis and testing with respect to the utilization of test data to determine conformance with specifications.

This report is issued in accordance with the General Terms and Conditions of Saybolt Jacksonville, FL and the recipient is deemed to have full knowledge thereof.

Remarks

Armando Mejia
 Armando Mejia

ATTACHMENT JEA-EU2-IV3
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT JEA-EU2-IV3 ALTERNATIVE METHODS OF OPERATION

Emissions Unit 006, 007, 008 and 009 (NGS Combustion Turbine Nos. 3, 4, 5 and 6) are equipped with direct water spray fogger devices in the inlet ducts of each CT. These CTs can operate continuously, i.e., 8,760 hr/yr, without using foggers or for up to 399 hr/yr while using foggers. The CTs are fired with No. 2 fuel oil.

EMISSIONS UNIT INFORMATION

Section [3]

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 [3]

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 Boiler Nos. 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: Boiler No. 1: 12/86 Boiler No. 2: 3/88	7. Emissions Unit Major Group SIC Code: 49
--	--------------------------------	---	--

8. Federal Program Applicability: (Check all that apply)

- Acid Rain Unit
 CAIR Unit

9. Package Unit Manufacturer:

Model Number:

10. Generator Nameplate Rating: **1359.2 MW (679.6 MW each)**

11. Emissions Unit Comment:

Initial Startup Dates are commercial operation dates. SJRPP Boiler Nos. 1 and 2 are dry bottom wall-fired types.

EMISSIONS UNIT INFORMATION

Section [3]

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:
Wet 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: **205, 204 and 139**

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 [3]

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.		

EMISSIONS UNIT INFORMATION

Section [3]

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: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Each unit exhausts through its own flue but through a common stack.			
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.			

EMISSIONS UNIT INFORMATION

Section [3]
 SJRPP Boiler Nos. 1&2

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 5

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: 75	5. Maximum Annual Rate: 657,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 4	8. Maximum % Ash:	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. Maximum sulfur content is for petcoke-coal blend.		

Segment Description and Rate: Segment 2 of 5

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. Maximum hourly = 2 units x 6,144 MMBtu/hr / (25 MMBtu/ton) = 491.52 ton Maximum annual = 491.52 ton x 8760 hr/yr = 4,305,715 ton		

EMISSIONS UNIT INFORMATION

Section [3]

SJRPP Boiler Nos. 1&2

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

Segment Description and Rate: Segment 3 of 5

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 ft³ = 0.685 MM ft³/hr. Each unit maximum annual rate = 0.685 MM ft³/hr x 8,760 hrs/yr = 6,000 MM ft³/yr Maximum rates are total for both units.		

Segment Description and Rate: Segment 4 of 5

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: No. 2 fuel oil fired for startup and low-load operation. Maximum rates are total for both units. Each unit max hourly rate = 980 MMBtu/hr /138 MMBtu/1,000 gallon = 7.1x10³ gal/hr. Maximum annual rate = 7.1x10³ gal/hr x 8,760 hr/yr = 62,196x10³ gal/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 [3]
SJRPP Boiler Nos. 1&2**

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

Segment Description and Rate: Segment 5 of 5

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Residual Oil: No. 6 Oil		
2. Source Classification Code (SCC): 1-01-004-01		3. SCC Units: 1,000 Gallons burned
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 1,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Firing of "on-specification" used oil is limited to 1,000,000 gallons during any calendar year.		

Segment Description and Rate: Segment _ of _

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION

Section [3]

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, 205		EL
CO			NS
SO2	039		EL
VOC			NS
PM	010	039	EL
PM10	010	039	NS
SAM	032		EL
PB			NS
NH3			NS
Acetaldehyde (H001)			NS
Benzene (H017)			NS
Benzyl chloride (H020)			NS
Cyanide Compounds (H054)			NS
HCl (H106)			NS
HF (H107)			NS
Isophorone (H109)			NS
Manganese Compounds (H113)			NS
Methyl chloride (H118)			NS
Selenium Compounds (H162)			NS
HAPs			NS

**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: 7,372 lb/hour 24,757.9 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: 0.60 lb/MMBtu, 30-day rolling average 0.46 lb/MMBtu, calendar year average		7. Emissions Method Code: 0	
Reference: 40 CFR 60 Subpart Da and Permit No. 0310045-038-AV			
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: Each unit: Hourly NOx emissions rate: 0.6 lb/MMBtu x 6,144 MMBtu/hr = 3,686.4 lb/hr Each unit: Annual NOx emissions rate: 0.46 lb/MMBtu x 6,144 MMBtu/hr x 8,760 hr/yr x ton/2,000 lb = 12,378.9 ton/yr			
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 [based on 40 CFR 76.7(a)(2)]. Emissions represent 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 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 tons/year
5. Method of Compliance: Compliance with the NOx emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 60, Subpart Da and 30-day rolling average. Applicable when firing coal and petroleum coke blends. Total for both boilers.	

Allowable Emissions 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 will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 60, Subpart Da and 30-day rolling average. Each unit equivalent hourly: 0.3 lb/MMBtu x 6,144 MMBtu/hr = 1,843.2 lb/hr Applicable when firing fuel oil.	

Allowable Emissions 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: 280.0 lb/hour tons/year
5. Method of Compliance: Compliance with the NOx emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 60, Subpart Da [40 CFR 60.44Da(a)(1)] and Permit No. 0310045-029-AC. Each unit equivalent hourly: 0.2 lb/MMBtu x 700 MMBtu/hr = 140 lb/hr Applicable when firing natural gas.	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [3]
 SJRPP Boiler Nos. 1&2

Page [1] of [4]
 Nitrogen Oxides - NOx

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS (CONTINUED)**

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

Allowable Emissions Allowable Emissions 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 be demonstrated using CEMS.	
6. Allowable Emissions Comment (Description of Operating Method): ENOx = (0.2w + 0.3x + 0.6z)/100 Where ENOx = NOx emissions standard in lb/MMBtu w = % of total heat input derived from the combustion of natural gas. x = % of total heat input derived from the combustion of fuel oil. z = % of total heat input derived from the combustion of coal or a blend of coal and petcoke. Based on 40 CFR 60, Subpart Da [40 CFR 60.44Da(c)].	

Allowable Emissions Allowable Emissions 5 of 5

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. Method of Compliance: Compliance with the NOx emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Each unit equivalent allowable = 0.46 lb/MMBtu x 6,144 MMBtu/hr x 8,760 hr/yr x ton/2,000 lb = 12,378.9 TPY Based on 40 CFR 76.7(a)(2). (Acid Rain NOx emission reduction program)	

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 [3]
 SJRPP Boiler Nos. 1&2

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

1. Pollutant Emitted: SO2		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 14,746 lb/hour 40,904 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: 1.20 lb/MMBtu (2-hr average basis) 0.76 lb/MMBtu (30-day rolling average basis)		7. Emissions Method Code: 0	
Reference: 40 CFR 60 Subpart Da and Permit No. 0310045-038-AV			
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: Each unit: Short-term hourly SO ₂ emissions rate (2-hr average): 1.20 lb/MMBtu x 6,144 MMBtu/hr = 7,373 lb/hr Each unit: Long-term 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/2,000 lb = 20,452 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for both boilers			

EMISSIONS UNIT INFORMATION

Section [3]
 SJRPP Boiler Nos. 1&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 1 of 10

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 1.20 lb/MMBtu, 2-hr average	4. Equivalent Allowable Emissions: 14,746 lb/hour tons/year
5. Method of Compliance: Compliance with the SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0310045-038-AV Applicable when firing coal. Total both boilers.	

Allowable Emissions Allowable Emissions 2 of 10

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.76 lb/MMBtu, 30-day rolling average	4. Equivalent Allowable Emissions: 9,338 lb/hour 40,904 tons/year
5. Method of Compliance: Compliance with the SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0310045-038-AV. Applicable when firing coal. Equivalent annual emissions = 0.76 lb/MMBtu x 6,144 MMBtu/hr x 8,760 hr/yr x ton/2,000 lb x 2 units = 40,904 TPY	

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 SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0310045-038-AV Based on 40 CFR 60, Subpart Da. Applicable when firing coal.	

EMISSIONS UNIT INFORMATION

Section [3]
 SJRPP Boiler Nos. 1&2

POLLUTANT DETAIL INFORMATION

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

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS (CONTINUED)**

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

Allowable Emissions Allowable Emissions 4 of 10

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0% reduction of potential combustions concentrations if emissions are less than 0.20 lb/MMBtu	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: Compliance with the SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0310045-038-AV Based on 40 CFR 60, Subpart Da. Applicable when firing coal.	

Allowable Emissions Allowable Emissions 5 of 10

1. Basis for Allowable Emissions Code: OTHER	2. 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. Method of Compliance: Compliance with the SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0310045-038-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 and a minimum of 79% Reduction shall be achieved in the flue gas Desulfurization system.	4. Equivalent Allowable Emissions: 6,512 lb/hour 199,687 tons/year
5. Method of Compliance: Compliance with the SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0310045-038-AV; Applicable when firing coal and petroleum coke blends (when coal with max. 2% sulfur is fired with petcoke) Total for both boilers.	

EMISSIONS UNIT INFORMATION

Section [3]
 SJRPP Boiler Nos. 1&2

POLLUTANT DETAIL INFORMATION

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 Sulfur Dioxide - SO2

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS (CONTINUED)**

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

Allowable Emissions Allowable Emissions 7 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 Emissions: lb/hour tons/year
5. Method of Compliance: Compliance with the SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): SO₂ (lb/MMBtu) = (0.2 x C / 100) + 0.4 Where C = percent of coal fired on a heat input basis (30-day rolling average) Permit No. 0310045-038-AV Applicable when firing coal and petroleum coke blends (Coal sulfur content 2-3.63%).	

Allowable Emissions Allowable Emissions 8 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 Emissions: lb/hour tons/year
5. Method of Compliance: Compliance with the SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): SO₂ (lb/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. 0310045-038-AV Applicable when firing coal and petroleum coke blends (Coal sulfur content > 3.63%).	

Allowable Emissions Allowable Emissions 9 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. Method of Compliance: Compliance with the SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Applies when firing liquid fuels only. Permit No. 0310045-038-AV Total for both boilers.	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS (CONTINUED)**

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 Emissions: lb/hour tons/year
5. Method of Compliance: Compliance with the SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Prorated formulas specified in 40 CFR 60.43a(h). Specific condition in No. C. 18 of Permit No. 0310045-038-AV.	

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 [3]
 SJRPP Boiler Nos. 1&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 Efficiency of Control:	
3. Potential Emissions: 368.6 lb/hour 1,614.6 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: 0.03 lb/MMBtu Reference: 40 CFR 60 Subpart Da and Permit No. 0310045-038-AV		7. Emissions Method Code: 0	
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: Each unit: Hourly emissions: 0.03 lb/MMBtu x 6,144 MMBtu/hr x 2 = 368.6 lb/hr Each unit: Annual emissions: 368.6 lb/hr x 8,760 hr/yr x ton/2000 lb = 1614.6 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions represent total for both boilers			

EMISSIONS UNIT INFORMATION

Section [3]
 SJRPP Boiler Nos. 1&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 Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.03 lb/MMBtu	4. Equivalent Allowable Emissions: 368.64 lb/hour 1,614 tons/year
5. Method of Compliance: Annual testing using EPA Method 17, 5, 5B or 5F	
6. Allowable Emissions Comment (Description of Operating Method): 40 CFR 60 Subpart Da and Permit No. 0310045-038-AV Total for both boilers.	

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: lb/hour 1,323 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: Reference: Permit No. 0310045-017-AC		7. Emissions Method Code: 0	
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 checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions:			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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

Section [3]
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: None	
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 [3]

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 4

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: TECO Model Number: 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 2007 Installation Date: SJRPP Boiler No. 2: May 2007 Test Date: SJRPP Boiler No. 1: March 2007 Test Date: SJRPP Boiler No. 2: June 2007	

Continuous Monitoring System: Continuous Monitor 2 of 4

1. Parameter Code: EM	2. Pollutant(s): SO2
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
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: 0610416572 Serial Number: SJRPP Boiler No. 2: 0631019327 Installation Date: SJRPP Boiler No. 1: March 2007 Installation Date: SJRPP Boiler No. 2: May 2007 Test Date: SJRPP Boiler No. 1: March 2007 Test Date: SJRPP Boiler No. 2: June 2007	

EMISSIONS UNIT INFORMATION

Section [3]
SJRPP Boiler Nos. 1&2

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor **3** of **4**

1. Parameter Code: EM	2. Pollutant(s): SO2
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
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: 0633419623 Serial Number: SJRPP Boiler No. 2: 0618617300 Installation Date: SJRPP Boiler No. 1: March 2007 Installation Date: SJRPP Boiler No. 2: May 2007 Test Date: SJRPP Boiler No. 1: March 2007 Test Date: SJRPP Boiler No. 2: June 2007	

Continuous Monitoring System: Continuous Monitor **4** of **4**

1. Parameter Code: VE	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
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

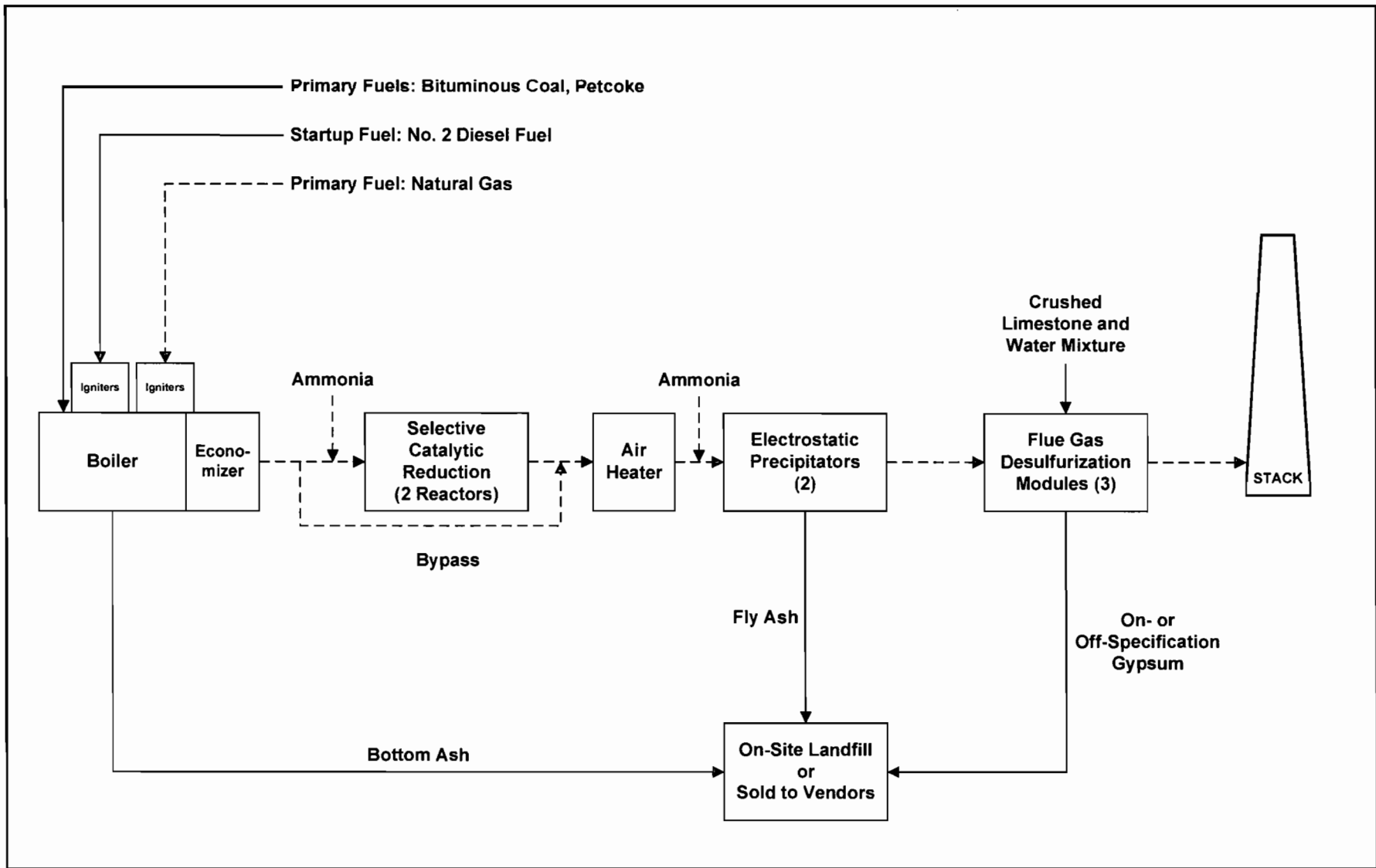
Section [3]
SJRPP Boiler Nos. 1&2

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU3-I1</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU3-I2</u> <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU3-I3</u> <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I4</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I5</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: <u>November 13-16, 2012</u> <u>PM, VE, CO, NOx, SO2, SO3</u> <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT JEA-EU3-I1
PROCESS FLOW DIAGRAM



Attachment JEA-EU3-11
 Process Flow Diagram
 SJRPP Boiler Nos. 1 and 2 (EU 016 and 017)

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



ATTACHMENT JEA-EU3-I2
FUEL ANALYSIS

LIMS Label:	F121113PPKOLXX01
Lab ID:	12-0414
Sample Matrix:	Coal
Sample Description:	Unit 1 Coal
Sample Date:	11/13/2012
Sample Time:	12:00:00

148500001

Moisture	%		Analyst	Analysis Date	Analysis Time
Air Dry Loss	9.65	For samples without Air-Dry Loss result, enter zero (0).	jakeb	11/27/12	9:00:00
Residual 60 Mesh Loss	4.67		jakeb	11/27/12	14:00:00

Results Weight %	As-Determined	Dry	Dry, Ash-Free With moisture Without Moisture			Analyst	Analysis Date	Analysis Time
			(MAF)	As-Received	As-Received			
Total Moisture					13.87	jakeb	11/27/12	14:00:00
Carbon	68.60	71.96	79.48		61.98	jakeb	11/27/12	16:00:00
Hydrogen	1.28	0.79	0.88	2.24	0.68	jakeb	11/27/12	16:00:00
Nitrogen	1.54	1.62	1.78		1.39	jakeb	11/27/12	16:00:00
Sulfur	4.89	5.13	5.67		4.42	jakeb	11/27/12	16:00:00
Ash	9.02	9.46			8.15	jakeb	11/27/12	14:00:00
Oxygen (% Difference)	14.67	11.04	12.20	21.83	9.51	jakeb	11/27/12	16:00:00
Total %	100.00	100.00	109.46	100.00	86.13	Calculated - Not in LIMS		
Total Moisture weight %				-13.87	13.87	Calculated - Not in LIMS		
Moisture Weight %	4.67				100.00	Calculated - Not in LIMS		

Calorific Value						Analyst	Analysis Date	Analysis Time
Net BTU/lb	11786.8	12364.2	13655.73		10649.3	Calculated - Entered into LIMS		
Gross BTU/lb (no S corr.)	12109.00	12702.2	14029.06		10940.5	BH	11/29/12	14:00:00

Other Analyses						Analyst	Date	Time
Volatile % UnCalibrated	# Entry	#VALUE!	#VALUE!		#VALUE!	Not Reported		
Volatile % Calibrated	36.76	38.56	42.59		33.21	jakeb	11/27/12	14:00:00
Chlorine	# Entry	#VALUE!	#VALUE!		#VALUE!	# Entry	# Entry	# Entry
Fluorine	# Entry	#VALUE!	#VALUE!		#VALUE!	# Entry	# Entry	# Entry

LIMS Label: F121115PPKOLXX01
 Lab ID: 12-0416
 Sample Matrix: Coal
 Sample Description: Unit 2 Coal
 Sample Date: 11/15/2012
 Sample Time: 12:00:00

148500003

Moisture

	%
Air Dry Loss	11.69
Residual 60 Mesh Loss	3.99

For samples without Air-Dry Loss result, enter zero (0).

Analyst	Analysis Date	Analysis Time
jakeb	11/28/12	9:00:00
jakeb	11/27/12	9:00:00

Results Weight %	As-Determined	Dry	Dry, Ash-Free		Without Moisture As-Received	Analyst	Analysis Date	Analysis Time
			(MAF)	With moisture As-Received				
Total Moisture					15.21	jakeb	11/27/12	9:00:00
Carbon	68.65	71.50	78.42		60.62	jakeb	11/27/12	16:00:00
Hydrogen	1.12	0.70	0.77	2.30	0.59	jakeb	11/27/12	16:00:00
Nitrogen	1.48	1.54	1.69		1.31	jakeb	11/27/12	16:00:00
Sulfur	4.73	4.93	5.40		4.18	jakeb	11/27/12	16:00:00
Ash	8.47	8.83			7.48	jakeb	11/27/12	9:00:00
Oxygen (% Difference)	15.55	12.50	13.71	24.11	10.60	jakeb	11/27/12	16:00:00
Total %	100.00	100.00	108.83	100.00	84.79	Calculated - Not in LIMS		
Total Moisture weight %				-15.21	15.21	Calculated - Not in LIMS		
Moisture Weight %	3.99				100.00	Calculated - Not in LIMS		

Calorific Value						Analyst	Analysis Date	Analysis Time
Gross BTU/lb (corrected)	12390.00	12904.9	14154.00		10941.6	BH	11/29/12	14:00:00
Net BTU/lb	12177.1	12683.2	13910.81		10753.6	Calculated - Entered into LIMS		
Gross BTU/lb (no S corr.)	12502.00	13021.6	14281.94		11040.5	BH	11/29/12	14:00:00

Other Analyses						Analyst	Date	Time
Fixed Carbon	50.80	52.91	58.03		44.86	jakeb	11/27/12	9:00:00
Volatile % UnCalibrated	# Entry	#VALUE!	#VALUE!		#VALUE!	Not Reported		
Volatile % Calibrated	36.74	38.27	41.97		32.45	jakeb	11/27/12	9:00:00
Chlorine	# Entry	#VALUE!	#VALUE!		#VALUE!	# Entry	# Entry	# Entry
Fluorine	# Entry	#VALUE!	#VALUE!		#VALUE!	# Entry	# Entry	# Entry

ATTACHMENT JEA-EU3-I3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

St. Johns River Power Park FGD System

Purpose

The purpose of the Research-Cottrell Double-Loop™ FGD System is to reduce the sulfur dioxide (SO₂) emissions exiting each of the two (2) pulverized coal-fired balanced draft steam generators, (675 megawatt units) to meet the new source performance standards (NSPS) promulgated by the EPA and published in the June 11, 1979 Federal Register. Each steam generator is designed to burn 4.0 percent maximum sulfur, 0.30 percent maximum chlorine coal. The FGD System uses in situ oxidation (greater than 99 percent) to produce commercial grade gypsum as a by-product.

Process Description: Gas Side

The SJRPP FGD Systems utilize a limestone reagent. Limestone (a mineral found abundantly in the United States) provides the chemical (calcium carbonate – the major constituent of limestone) that reacts with the sulfur dioxide. The product of these reactions is a slurry containing calcium sulfite and calcium sulfate (gypsum). This slurry is dewatered to produce a stable and saleable gypsum end-product.

The limestone contacts the SO₂ laden flue gas in vessels called absorber towers. Each unit has three (3) absorber towers which are 48 feet in diameter. Two (2) towers are used to treat 100% of the flue gas at rated maximum load. The third tower on each unit is normally kept as a standby/spare, although the FGD System design permits all three (3) towers to be operated simultaneously.

The towers provide the proper chemical conditions for an efficient reaction of SO₂ and calcium carbonate to take place, so that approximately 95 percent of the SO₂ treated in the absorber towers is removed at all times. Since only about 90% SO₂ removal is required for high sulfur fuel, not all of the gas needs to be treated to meet emissions requirements. A portion of the gas is bypassed and mixed with the treated gas to meet the overall emissions goal. This minimizes the number of towers, pumps and limestone used at any time.

Flue gas enters the absorber tower tangentially in the cyclonic quencher. The quencher cools the gas and saturates it with moisture, reducing the gas temperature from about 277° F to approximately 123° F. This is done by spraying 15% solids slurry containing limestone (1% to 3% of the total) and reaction products (remainder) into the flue gas using a centrifugal pump. Through this gas/liquid contacting, the quencher also removes between 10% and 25% of the incoming SO₂ and much of the residual particulate exiting the Research-Cottrell electrostatic precipitators.

From the quencher, the partially treated saturated gas passes around the bowl or liquid-gas separator (which separates low reactivity quencher slurry from high reactivity absorber slurry) and enters the absorber loop. Here the gas, now straightened from cyclonic to vertical, contacts two (2) absorber sections which remove most of the remaining SO₂. Both of these sections, the spray tower and the wetted film contactor (WFC) or packing, contact the gas with a 12% solids slurry containing limestone (8% to 12% of the solids) and reaction products at a pH of 5.8 to 6.1.

The absorber sprays direct slurry downward into the gas through small spray nozzles. The wetted film contactor sprays feed slurry down, onto an open grid surface of polypropylene. This grid design is patented and is called the wetted film contactor because the slurry running down it forms a high surface film wherein the reaction of SO₂ with CaCO₃ is maximized.

When the flue gas leaves the absorber section, the SO₂ removal process is completed. The gas, however, must now be stripped of water and slurry droplets carried up from the absorber sections. This is done in a two stage mist eliminator section system. Here, the gas passes through two (2) sections of polypropylene packing which collects these droplets by collision of the droplets with the packing surfaces. Water wash sprays below each mist eliminator periodically to remove any collected buildup and allow it to drain back into the absorber sections.

St. Johns River Power Park FGD System

The treated gas then exits into the main outlet ductwork where it mixes with any unscrubbed (or bypass) gases. The resultant gas mixture is unsaturated in moisture content, reducing the chance for condensation in the ductwork and stack and is elevated in temperature from the treated gas temperature. Additional reheat can be provided by the supplemental reheat system to give added buoyancy to exit the 640 foot tall stack.

Process Description: Liquid Side

Following through the liquid or slurry side of the system, limestone is delivered to the site by truck or rail and stored in the SJRPP limestone storage area. Reclaim conveyors feed the limestone (still in pebble form) to day-storage silos. From here, a belt-type gravimetric weigh feeder delivers the limestone to the ball mill system where the limestone is ground up and mixed with water in a rubber-lined rotating drum-type ball mill. Ball mill discharge is fed to classifiers which recycle the coarse material back to the ball mill for regrinding and allow the finely ground material to proceed to the reagent feed tank.

The resultant slurry is a mixture of 40% solids (1.34 SGU) (i.e. limestone) and 60% water, where the particle size of the ground limestone is such that a minimum 80% can pass through a 200 mesh screen. This "reagent slurry" is stored in reagent feed tanks which deliver limestone slurry to the FGD System on demand through centrifugal pumps called the reagent feed pumps.

Fresh limestone, as reagent slurry, enters the absorber feed tanks, which circulate a slurry of fresh limestone and reaction products (primarily unoxidized material called calcium sulfite) to the absorber sprays and wetted film contactor sections of the tower, using centrifugal pumps (absorber feed pumps). The spent slurry returns to the absorber feed tanks through the bowl return line. Solids generated in the "absorber loop" of the process are discharged from the absorber feed tank to the quencher loop sump (i.e. the bottom portion of the absorber towers) via the absorber hydroclone underflow, or the absorber feed tank overflow line.

From the quencher sumps, the partially reacted slurry is circulated through the quencher spray levels by centrifugal pumps (quencher pumps). This slurry has a 10-20% solids (1.06-1.12 SGU) content and contains primarily reaction products (mostly oxidized material called calcium sulfate) plus small amounts of unreacted limestone. The oxidation process is enhanced by bubbling air through holes in pipes called "spargers" into both the absorber feed tanks and the quencher sumps. The purpose of this process is to oxidize the sludge which improves the dewaterability of the slurry in the waste handling system.

The quencher slurry is pumped via a hydroclone feed pump to a first stage quencher hydroclone. The underflow from these hydroclones consists of about 35-60% solids and is transferred to the waste transfer tank while the overflow from the first stage hydroclone is fed to a second stage quencher hydroclone. The overflow from the second stage hydroclone is purged to control the chloride in the FGD System. The underflow of the second stage hydroclone is sent back to the quencher sump.

Slurry from the waste transfer tanks (one for each operating absorber tower) is recycled via waste transfer pumps and transferred to a common waste slurry tank. The slurry from this tank is sent to a filter feed sump using a second stage dewatering pump. Slurry from the filter feed sump is delivered to two-stage vacuum filters. Each stage consists of two operating vacuum drum filters which operate by pulling water through a filter cloth which is impermeable to solids. If concentration of chloride in the gypsum cake exceeds the required level, the gypsum cake will be reslurried in the reslurry tank and sent to the second stage vacuum filters.

All water recaptured from the dewatering system is recycled back to the FGD System to minimize the need for fresh make up water. This provides a closed loop operation.

Operating History

Both units have maintained greater than 99% system availability and compliance with emissions regulations with the commencement of operation of Unit #1 on December 12, 1986 and Unit #2 on March 24, 1988.

SJRPP is currently selling by-product gypsum to both a wall board manufacturer as well as to area farmers who utilize the gypsum as a

ST JOHNS RIVER POWER PARK

NO_x REDUCTION PROJECT

**SYSTEM DESCRIPTION
FOR**

SELECTIVE CATALYTIC REDUCTION SYSTEM

144805.43.1406

**October 5, 2007
Revision 1**

BLACK & VEATCH

1.0 System Description

1.1 Function

The purpose of the Selective Catalytic Reduction (SCR) System is to reduce the NO_x emissions exiting the stack. This system is designed for operation over load ranges of 50 percent of full load, (approximately 300 MW net) and higher. The minimum temperature required for ammonia injection to react with the NO_x in the SCR reactor is 612°F, which corresponds to lowest expected temperature at low loads.

1.2 General Description

Selective Catalytic Reduction is a process that uses catalyst to promote the conversion of nitrogen oxides (NO_x) to nitrogen and water vapor in the flue gas. This conversion occurs between the boiler economizer and the air heaters in a specially designed ductwork section, called the SCR Reactor, which contains the catalyst. Ammonia vapor, mixed with dilution air, is injected into the flue gas upstream of the catalyst and is thoroughly mixed with the flue gas prior to its admittance to the catalyst. As the flue gas passes over the catalyst, the nitrogen monoxide (NO) and nitrogen dioxide (NO₂) combine with the ammonia (NH₃) to form nitrogen (N₂) and water (H₂O).

2.0 Component Description

2.1 Description

The purpose of the catalyst is to promote the reaction between NO_x and ammonia (NH₃) to form nitrogen (N₂) and water (H₂O) at temperatures between 612°F and 800°F. This is the temperature range of the flue gas downstream of the economizer and upstream of the air heater.

The catalyst used for NO_x reduction service primarily consists of a vanadium, titanium, and tungsten mixture. However, the final catalyst composition can consist of many active metals and support materials. Titanium dioxide (TiO₂) is used as the base material that disperses and supports vanadium pentoxide (V₂O₅) and tungsten trioxide (WO₃), which are the active catalyst materials. Vanadium pentoxide is widely used in the SCR industry due to its resistance to sulfur poisoning. The vanadium content controls the reactivity of the catalyst, but also catalyzes the oxidation of SO₂ to SO₃. For this moderate to high sulfur coal application, it is necessary to minimize the vanadium content to reduce SO₂ oxidation. Additionally, the vanadium already present in the petcoke fuel may deposit on the catalyst, increasing the oxidation of SO₂ to SO₃ over time. Tungsten trioxide also provides thermal and mechanical stability to the catalyst. The concentrations of vanadium pentoxide, titanium dioxide, and tungsten trioxide are customized

to meet the specific requirements for this SCR system installation. The catalyst is made up of numerous catalyst modules that are loaded into the SCR reactor.

The catalyst is selected to ensure adequate NO_x reduction and acceptable SO₂ oxidation. In addition, the catalyst is designed to withstand temperatures up to 880°F.

Testing of the catalyst will be performed if the performance results are not met and for the Catalyst Management Program. The program is used to monitor catalyst performance throughout the life of the catalyst in order to ensure the optimal catalyst design is used as plant operation could vary in the future. Each catalyst module has a removable catalyst test box, with an installed handle. There are a total of 84 catalyst test boxes per layer.

2.2 Design Conditions

The catalyst sizing is determined by the physical and chemical characteristics of the flue gas. For this project, a catalyst pitch of 8.2 mm is used, with a wall thickness of 1.0 mm. These two parameters work together to ensure a proper balance between percent open area (to reduce pressure losses) and mechanical strength required for catalyst handling and washing.

3.0 Reactor and Ductwork

3.1 Description

The purpose of the reactor and associated ductwork is to bring the flue gas into contact with the SCR catalyst in order to facilitate the chemical reactions from nitrogen oxides to nitrogen and water.

The ductwork for the SCR system consists of an inlet duct, an outlet duct, a bypass duct, the reactor housing, and the associated dampers and expansion joints as indicated on the SCR system arrangement drawings. The ammonia injection grid penetrates one wall of the SCR reactor inlet duct and extends the entire width of the duct.

Each unit is provided with two SCR reactors (one per economizer outlet/air heater inlet path) with up to four layers of catalyst modules. The SCR system is located between the boiler economizer outlet and the air preheater inlet. The SCR system is upstream of the air preheaters, electrostatic precipitators (ESP), induced draft (ID) fans, and scrubbers. The boiler flue gas exits the boiler economizer in two sections and is directed through the two SCR reactors using dampers. The flue gas passes through a static mixing device and through the ammonia injection grid before entering the SCR catalyst field. Ammonia is injected into the flue gas at the ammonia injection grid (AIG), at a ratio of 1.05 moles of ammonia for every mole of nitrogen oxides (NO_x) being removed. The flue gas then passes through the SCR catalyst, where the ammonia reacts with the NO_x in the flue gas to form nitrogen and water vapor. The flue gas then exits the SCR reactors and enters the two existing air preheaters. The boiler flue gas then passes through the ESP, ID fans, and scrubbers and discharges into the atmosphere via the

chimney. For maintenance requirements, each SCR reactor may be bypassed by closing the reactor inlet diverter damper and closing the reactor outlet isolation dampers. During SCR reactor bypass operation, flue gas is directed from the boiler economizer outlet to the air preheater inlet. Additional maintenance dampers are provided at the SCR inlet and outlet for double isolation of the reactor while the boiler is in operation. This provides for zero leakage of flue gas into the SCR reactor during bypass operation.

The reactor is a vertical, downward flow design and is capable of holding a total of four catalyst layers. Only the upper three layers are initially loaded with catalyst. The fourth layer will be added later when the catalyst performance deteriorates to an unacceptable level, or if changes in fuel blends require additional catalyst activity. The catalyst modules are stacked in frames designed to support the full weight of the modules. Each layer is capable of holding catalyst that is up to 5.3 feet in height. Each reactor layer is equipped with sonic horns to prevent ash from accumulating on the catalyst surface. If petcoke firing returns to the fuel mix, catalyst will be installed only on Layers 2 through 4, and sootblowers will be installed on those layers. Soot blowers will be located approximately 20 inches above the catalyst face, independent of the catalyst depth. Catalyst module frames are designed based on the actual catalyst module length, to maintain the soot blower dimension above the catalyst face. Each reactor layer is also designed to facilitate the periodic removal and replacement of the catalyst modules.

NO_x monitoring equipment is located upstream of the ammonia injection grid and at the outlet of the SCR reactor. Carbon monoxide (CO) and oxygen (O₂) instrumentation is located on the ductwork at the economizer outlet. A sample grid is located downstream of the fourth catalyst layer (at the outlet of SCR reactor) for tuning the ammonia injection grid. A differential pressure transmitter is installed across the catalyst layers to monitor any change in differential pressure due to catalyst plugging. Test ports are located on the ductwork in the following locations:

- Between the economizer outlet and the inlet diverter damper (upstream of the LPA screen)
- After the inlet maintenance damper (upstream of the static mixer)
- After the ammonia injection grid upstream of the SCR reactor
- On the SCR reactor before and after each catalyst layer
- Between the SCR reactor outlet and the air preheater inlet

Ductwork, plate, and stiffeners are constructed of ASTM A588 steel material. Turning vanes and flow straightening devices located in the ductwork consist of ASTM A588 steel material. The ductwork is designed to minimize the need for internal trusses wherever possible. Turning vanes and flow straightening devices are provided as indicated by flow modeling studies performed by the catalyst supplier during the detailed design. Expansion joints are located in the ductwork as required to accommodate thermal movement of the ductwork.

3.2 Design Conditions

The SCR reactors are sized to provide a flue gas velocity of 16.4 to 19.6 feet per second at the catalyst face. The velocity in the ductwork containing the static mixer, ammonia injection grid, and the SCR outlet isolation louver damper is approximately 50 feet per second. The velocity in the remaining ductwork is between 45 and 60 feet per second.

The design pressure and temperature of the SCR inlet duct, reactor, and outlet duct is ± 35 inches wg and 800° F, respectively.

4.0 Ammonia Injection Grid

4.1 Description

The function of the ammonia injection grid is to introduce ammonia into the flue gas before it enters the SCR reactor.

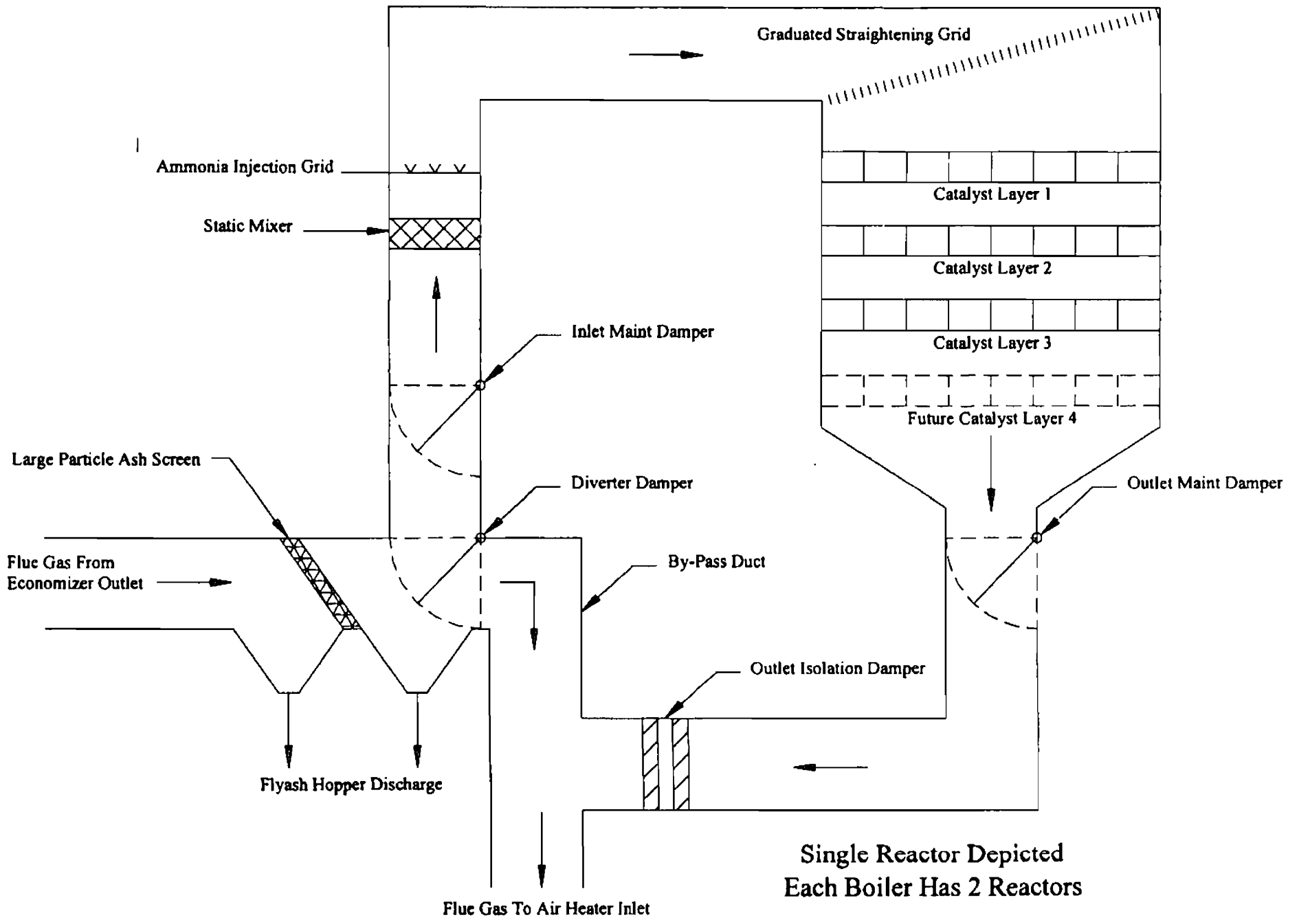
An air/ammonia vapor mixture flows from the ammonia vaporization equipment into the ammonia injection grid distribution header, where it is introduced into the SCR reactor inlet duct and distributed across the entire duct cross section via the ammonia injection grid (AIG). The AIG consists of a series of stacked layers of parallel pipes, each with nozzles that inject the mixture into a specific section of the SCR reactor inlet duct. The pipes extend the entire width of the ductwork and contain a sufficient number of nozzles sized for the particular ammonia distribution requirement. The piping from the distribution header includes manual flow control valves, flow elements, and differential pressure indicators to adjust/tune the ammonia injection flow.

The AIG distribution header, supply lines, and all components outside the flue gas stream are manufactured of carbon steel. The AIG grid located inside the flue gas stream is constructed of ASTM A335 P11 alloy steel.

During the initial SCR reactor startup phase, and approximately once a year thereafter, the flow rate of the air/ammonia vapor through the nozzles is optimized by manually adjusting the ammonia flow control valves in the AIG supply lines. This initial setting and periodic adjustment optimizes the distribution of the ammonia across the SCR inlet duct cross-section to minimize both the NO_x emissions and ammonia slip. The flow elements consist of Type 316 stainless steel orifice plates installed between a pair of carbon steel orifice flanges. Differential pressure indicators measure the pressure drop across the flow orifice. The sample grid at the SCR Reactor outlet is used to collect NO_x readings which provide indication for adjustment of the flow control valves.

There potential increase in SAM emissions due to the SCR process will be minimized through the injection, downstream of the SCR, of ammonia to react with the SO₃ prior to the

electrostatic precipitator (ESP). The system is designed to be designed to remove 90% of the SAM after the air heater. The amount of ammonia injected into the flue gas conditioning system will be regulated based on load and SO₂ content. The reactant, primarily ammonium sulfate, will be collected in the ESP and FGD system. The ammonia slip after the ESP, from the SCR process, is expected to be 2 parts per million or less.



Single Reactor Depicted
Each Boiler Has 2 Reactors

ATTACHMENT JEA-EU3-IV2
COMPLIANCE ASSURANCE MONITORING

ATTACHMENT JEA-EU3-IV2

COMPLIANCE ASSURANCE MONITORING FOR EU 016 AND 017

The monitoring approach for ESPs controlling PM emissions from SJRPP Boiler Nos. 1 and 2 is the following (based on Appendix CAM of Permit No. 0310045-038-AV).

I. Indicator	Duct opacity.
Measurement Approach	Continuous opacity monitoring system (COMS).
II. Indicator Range	An excursion is defined as any 1-hour block average of opacity greater than 18% (other than startup and shutdown periods).
III. Performance Criteria	
A. Data Representativeness	Based on available data under normal operation, the representative stack opacity of each unit is in the range of 5 to 15%. In addition, the COMS are located upstream of the scrubber and as such; the opacity at the stack exit is lower than the value indicated by the COMS. Therefore, 18% opacity during non-startup or shutdown periods is atypical and may indicate a potential problem with the ESP.
B. Verification of Operational Status	Annual testing during normal operation is used to calibrate the opacity monitor and determine the opacity and verify particulate mass loading.
C. QA/QC Practices and Criteria	Install and operate COMS according to 40 CFR Part 60 Appendix B, Performance Specification 1 and general provisions 60.13.
D. Monitoring Frequency	Continuous.
E. Data Collection Procedures	The COMS collects data that are reduced to 6-minute averages and the 1-hour block average is calculated based on the 6-minute averages.
F. Averaging Period	One hour.
Description	
IV. Initiation of Corrective Action Procedures	Corrective action shall be initiated with the discovery of a one-hour block average of opacity greater than 18% and that defines an excursion (as defined in Table 3). The plant staff that made the discovery shall immediately notify the shift Manager or responsible official. This action describes a corrective action trigger.
V. Time of Completion of Corrective Action Procedures	As soon as practically possible.
VI. Corrective Action	The shift Manager or responsible official will implement the following as a corrective action.
	Procedures, as presented in the O&M Plan, include the following alternatives that will be initiated as necessary.
	<ul style="list-style-type: none"> ■ Perform operational diagnostics to identify cause of the excursion. ■ If operational diagnostics indicate a malfunction of the ESP, the reason for failure will be identified. ■ In the event of the need for the unit shutdown to bring opacity to below excursion levels, the task will be undertaken based on procedures described in the O&M Plan for the facility.
	Regardless of the failure mechanism, ESP operation will be restored such that the cause of excursion is identified and appropriate actions taken to ensure opacity below excursion levels.

ATTACHMENT JEA-EU3-IV3
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT JEA-EU3-IV3 ALTERNATIVE METHODS OF OPERATION

Emissions Units 016 and 017 (SJRPP Boiler Nos. 1 and 2) are allowed to fire pulverized coal, a coal blend with a maximum of 30 percent petroleum coke (by weight), natural gas, new No. 2 distillate fuel oil and "on-specification" used oil. The new No. 2 fuel oil is used for startup and low load operation. The maximum weight of petroleum coke burned is limited to 150,000 pounds per hour, based on a 30-day rolling average using production information for the amount of coal and petcoke metered from the coal storage bins to the boilers. "On-specification" used oil will be generally fired as a blend with the No. 2 fuel oil. Firing of natural gas is limited to achieve approximately 11 percent of full load operation for a maximum total heat input of 700 MMBtu/hr for each unit. When natural gas is fired, other authorized fuels are co-fired to achieve full load. This unit may operate continuously for 8,760 hours per year.

EMISSIONS UNIT INFORMATION

Section [4]

SJRPP: Bottom Ash, Fly Ash, and Gypsum Handling/Storage Operations

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 [4]

SJRPP: Bottom Ash, Fly Ash, and Gypsum Handling/Storage Operations

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:
SJRPP: Bottom Ash, Fly Ash, and Gypsum Handling and Storage Operations

3. Emissions Unit Identification Number: **022**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)

- Acid Rain Unit
- CAIR Unit

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

10. Generator Nameplate Rating: _____ MW

11. Emissions Unit Comment:
See Attachment JEA-EU4-A11.

EMISSIONS UNIT INFORMATION

Section [4]

SJRPP: Bottom Ash, Fly Ash, and Gypsum Handling/Storage Operations

Emissions Unit Control Equipment/Method: Control 1 of 4

1. Control Equipment/Method Description:
Dust Suppression by Water Sprays

2. Control Device or Method Code: **061**

Emissions Unit Control Equipment/Method: Control 2 of 4

1. Control Equipment/Method Description:
Dust Suppression by Wetting Agents

2. Control Device or Method Code: **062**

Emissions Unit Control Equipment/Method: Control 3 of 4

1. Control Equipment/Method Description:
Dust Suppression by full or partial enclosures, covers and wind screens

2. Control Device or Method Code: **054**

Emissions Unit Control Equipment/Method: Control 4 of 4

1. Control Equipment/Method Description:
Fabric Filter Systems

2. Control Device or Method Code: **018**

EMISSIONS UNIT INFORMATION

Section [4]

SJRPP: Bottom Ash, Fly Ash, and Gypsum Handling/Storage Operations

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:	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:	Emission unit is allowed to operate continuously (8,760 hr/yr).

EMISSIONS UNIT INFORMATION

Section [4]

SJRPP: Bottom Ash, Fly Ash, and Gypsum Handling/Storage Operations

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:		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Emissions points are described in Table 6 (Revised) Part B of Appendix SJRPP of permit No. 0310045-038-AV. See Attachment JEA-EU4-C3.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code:		6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: °F		9. Actual Volumetric Flow Rate: 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:			

EMISSIONS UNIT INFORMATION

Section [4]

SJRPP: Bottom Ash, Fly Ash, and Gypsum Handling/Storage Operations

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): Industrial Processes; Mineral Products; Coal Mining, Cleaning, and Material Handling		
2. Source Classification Code (SCC): 3-05-010-99		3. SCC Units: Tons handled
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Material handling associated with bottom ash, fly ash, and gypsum handling and storage operations.		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

**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:	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions:	
11. Potential, Fugitive, and Actual Emissions Comment:	

**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

Section [4]

SJRPP: Bottom Ash, Fly Ash, and Gypsum Handling/Storage Operations

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 1

1. Visible Emissions Subtype: See Attachment JEA-EU4-C3	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Annual and renewal testing using EPA Method 9 for the emissions units identified in Box 5.	
5. Visible Emissions Comment: VE limit based on BACT determination. Compliance demonstration required for the following emissions points: 0221 – Saleable Fly Ash Silo 1A with Fabric Filter (concrete structure) 0221 – Saleable Fly Ash Silo 1B with Fabric Filter (concrete structure) 0221 – Saleable Fly Ash Silo 2A with Fabric Filter (concrete structure) 0221 – Saleable Fly Ash Silo 2B with Fabric Filter (concrete structure) 0221 – Non-Saleable Fly Ash Silo Unit 1 with Fabric Filter (concrete structure) 0221 – Non-Saleable Fly Ash Silo Unit 2 with Fabric Filter (concrete structure)	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [4]

SJRPP: Bottom Ash, Fly Ash, and Gypsum Handling/Storage Operations

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<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:	

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 [4]

SJRPP: Bottom Ash, Fly Ash, and Gypsum Handling/Storage Operations

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU4-I1</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I5</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: <u>VE</u> <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT JEA-EU4-A11
EMISSIONS UNIT COMMENT

ATTACHMENT JEA-EU4-A11

EMISSION UNIT COMMENT

Fugitive particulate matter emissions are generated from bottom ash, fly ash, and gypsum materials handling and storage operations (EU022). Particulate matter emissions and visible emissions are controlled using fabric filter systems, water sprays, wetting agents, and full or partial enclosures, covers, and wind screens, where appropriate and required by permit. EU022 consists of the following emissions units/points:

- 022a – Gypsum Dewatering Building
- 022a – Gypsum Storage Enclosure
- 022j – Gypsum Truck Loadout
- 022j – Fly Ash Loadout for Silo 1A (metal structure)
- 022j – Fly Ash Loadout for Silo 1B (metal structure)
- 022j – Fly Ash Loadout for Silo 2A (metal structure)
- 022j – Fly Ash Loadout for Silo 2B (metal structure)
- 022k – Solid Waste Disposal Area
- 022l – Saleable Fly Ash Silo 1A with Fabric Filter (concrete structure)
- 022l – Saleable Fly Ash Silo 1B with Fabric Filter (concrete structure)
- 022l – Saleable Fly Ash Silo 2A with Fabric Filter (concrete structure)
- 022l – Saleable Fly Ash Silo 2B with Fabric Filter (concrete structure)
- 022l – Non-Saleable Fly Ash Silo Unit 1 with Fabric Filter (concrete structure)
- 022l – Non-Saleable Fly Ash Silo Unit 2 with Fabric Filter (concrete structure)
- 022m – Wet Fly Ash Loadout 1A/1B
- 022m – Bottom Ash Loadout 1A/1B
- 022m – Wet Fly Ash Loadout 2A/2B
- 022m – Bottom Ash Loadout 2A/2B
- 022n – Unpaved Road, By-Product Transport

ATTACHMENT JEA-EU4-C3
DESCRIPTION OF EMISSION POINTS

ATTACHMENT JEA-EU4-C3 EMISSION POINT INFORMATION

The SJRPP bottom ash, fly ash, and gypsum materials handling and storage operations (EU022) consists of several emissions units/points, which are described in Table 6 (revised) – Part B of Appendix SJRPP of Permit No. 0310045-038-AV. Following is the description of EU022 in Table 6:

Emission Unit No.	Emission Unit/Point	Type	VE Limit (%)	AQCS	Predicted Emissions (lb/hr)	VE Testing Frequency	Rationale
022a	Gypsum Dewatering Building	Fugitive	5	1	0.04	Upon Request	Wet byproduct w/insignificant emissions
022a	Gypsum Storage Enclosure	Fugitive	5	1	0.008	Upon Request	Wet byproduct w/insignificant emissions
022j	Gypsum Truck Loadout	Fugitive	5	1	0.28	Upon Request	Wet byproduct w/insignificant emissions
022j	Fly Ash Loadout for Silo 1A (metal structure)	Fugitive	10	1 & 3	0.06	Upon Request	Emissions vented back to Saleable Ash Silo
022j	Fly Ash Loadout for Silo 1B (metal structure)	Fugitive	10	1 & 3	0.06	Upon Request	Emissions vented back to Saleable Ash Silo
022j	Fly Ash Loadout for Silo 2A (metal structure)	Fugitive	10	1 & 3	0.06	Upon Request	Emissions vented back to Saleable Ash Silo
022j	Fly Ash Loadout for Silo 2B (metal structure)	Fugitive	10	1 & 3	0.06	Upon Request	Emissions vented back to Saleable Ash Silo
022k	Solid Waste Disposal Area	Fugitive	10	1 & 2	0.31	Upon Request	Wet byproduct w/insignificant emissions
022l	Saleable Fly Ash Silo 1A with Fabric Filter *	Point-Vent	5	4 & 5	0.2	Annually	Vent with minor emissions
022l	Saleable Fly Ash Silo 1B with Fabric Filter *	Point-Vent	5	4 & 5	0.2	Annually	Vent with minor emissions
022l	Saleable Fly Ash Silo 2A with Fabric Filter *	Point-Vent	5	4 & 5	0.2	Annually	Vent with minor emissions
022l	Saleable Fly Ash Silo 2B with Fabric Filter *	Point-Vent	5	4 & 5	0.2	Annually	Vent with minor emissions
022l	Non-Saleable Fly Ash Silo Unit 1-A with Fabric Filter *	Point-Vent	5	4 & 5	0.2	Annually	Vent with minor emissions
022l	Non-Saleable Fly Ash Silo Unit 2-A with Fabric Filter *	Point-Vent	5	4 & 5	0.2	Annually	Vent with minor emissions
022m	Wet Fly Ash Load out 1A/1B	Fugitive	10	1, 4 & 6	0.2	Upon Request	Wet byproduct w/insignificant emissions
022m	Bottom Ash Loadouts 1A/1B	Fugitive	10	1	0.09	Upon Request	Wet byproduct w/insignificant emissions
022m	Wet Fly Ash Load out 2A/2B	Fugitive	10	1, 4 & 6	0.2	Upon Request	Wet byproduct w/insignificant emissions
022m	Bottom Ash Loadouts 2A/2B	Fugitive	10	1	0.09	Upon Request	Wet byproduct w/insignificant emissions

Emission Unit No.	Emission Unit/Point	Type	VE Limit (%)	AQCS	Predicted Emissions (lb/hr)	VE Testing Frequency	Rationale
022n	Unpaved Road, By-Product Transport	Fugitive	10	1 & 2	0.58	Upon Request	No emission vent, reasonable precautions conducted (watering)

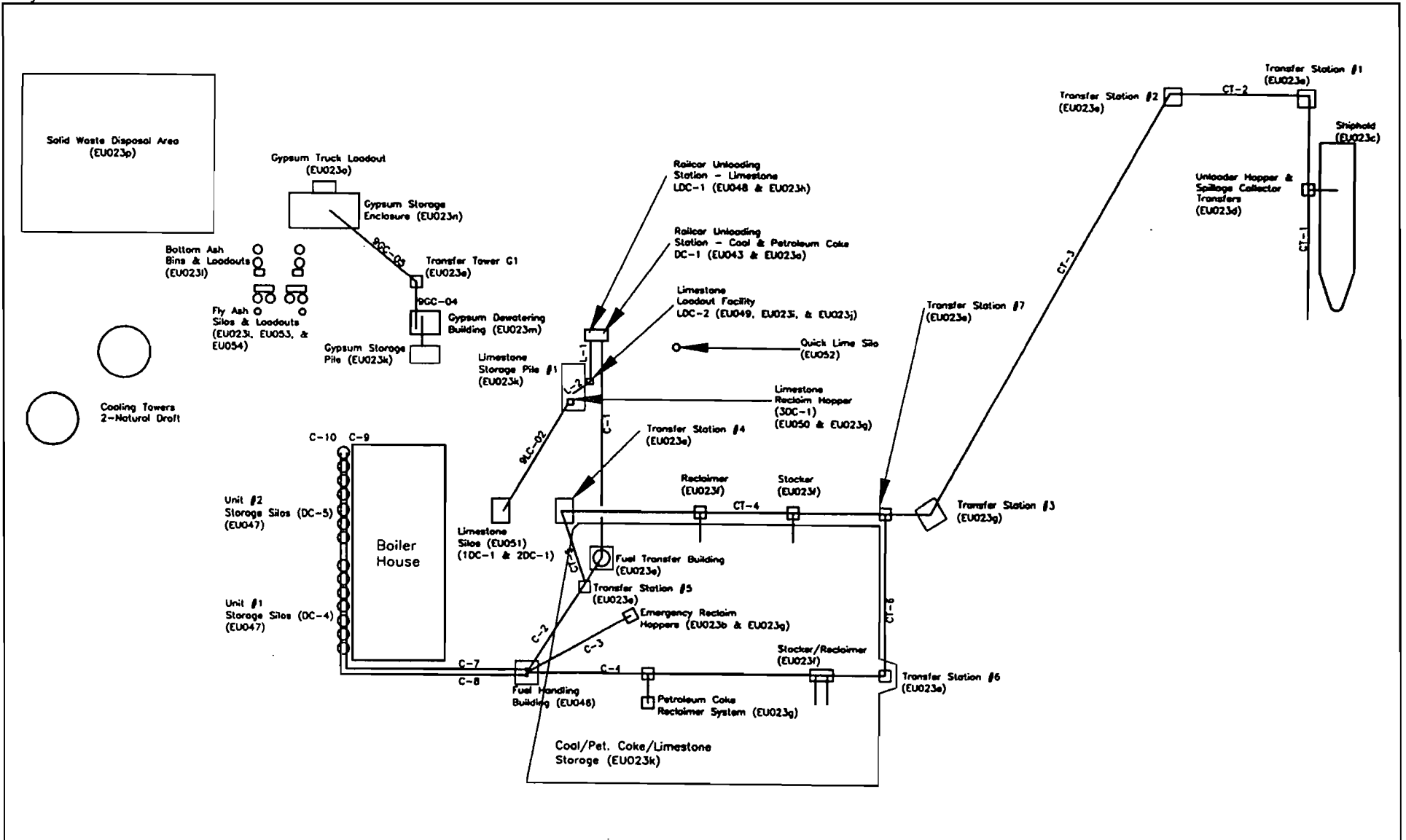
Air Quality Control Systems (AQCS)

1. Conditioned Materials
2. Wet Suppression, as needed
3. Water Sprays, as needed
4. Enclosures (Total, Partial, Covers, & Wind Screens)
5. Dust Control System – AQCS
6. Best Operating Practices

d. Predicted emissions (lbs/hr): these values were predicted/estimated and used in a preliminary screening/modeling evaluation for as permitting action (PSD-FL-010) and are not considered to be allowable emission limits.

* Concrete Structure.

ATTACHMENT JEA-EU4-I1
PROCESS FLOW DIAGRAM



Attachment EU4-11
Process Flow Diagram

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EMISSIONS UNIT INFORMATION

Section [5]

SJRPP: Fuel and Limestone Handling and Storage Operations

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 [5]

SJRPP: Fuel and Limestone Handling and Storage Operations

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:
SJRPP: Fuel and Limestone Handling and Storage Operations

3. Emissions Unit Identification Number: **023**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)
- Acid Rain Unit
 - CAIR Unit

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

10. Generator Nameplate Rating: _____ MW

11. Emissions Unit Comment:
See Attachment JEA-EU5-A11.

EMISSIONS UNIT INFORMATION

Section [5]

SJRPP: Fuel and Limestone Handling and Storage Operations

Emissions Unit Control Equipment/Method: Control 1 of 4

1. Control Equipment/Method Description:
Dust Suppression by Water Sprays

2. Control Device or Method Code: **061**

Emissions Unit Control Equipment/Method: Control 2 of 4

1. Control Equipment/Method Description:
Dust Suppression by Wetting Agents

2. Control Device or Method Code: **062**

Emissions Unit Control Equipment/Method: Control 3 of 4

1. Control Equipment/Method Description:
Dust Suppression by full or partial enclosures, covers and wind screens

2. Control Device or Method Code: **054**

Emissions Unit Control Equipment/Method: Control 4 of 4

1. Control Equipment/Method Description:
Fabric Filter Systems

2. Control Device or Method Code: **018**

EMISSIONS UNIT INFORMATION

Section [5]

SJRPP: Fuel and Limestone Handling and Storage Operations

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:	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: Emission unit is allowed to operate continuously (8,760 hr/yr).		

EMISSIONS UNIT INFORMATION

Section [5]

SJRPP: Fuel and Limestone Handling and Storage Operations

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:		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Emissions points are described in Table 6 (Revised) Part B of Appendix SJRPP of permit No. 0310045-038-AV. See Attachment JEA-EU5-C3.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet	
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: 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:			

EMISSIONS UNIT INFORMATION

Section [5]

SJRPP: Fuel and Limestone Handling and Storage Operations

D. SEGMENT (PROCESS/FUEL) INFORMATION

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

1. Segment Description (Process/Fuel Type): Industrial Processes; Mineral Products; Coal Mining, Cleaning, and Material Handling		
2. Source Classification Code (SCC): 3-05-010-99		3. SCC Units: Tons handled
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Material handling associated with coal receiving, storage and transfer systems at the coal and petroleum coke storage yard, and limestone handling and storage systems.		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION

Section [5]

SJRPP: Fuel and Limestone Handling and Storage Operations

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
PM	061, 062, 054, 018		NS

**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:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions:			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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

Section [5]

SJRPP: Fuel and Limestone Handling and Storage Operations

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<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:	

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 [5]

SJRPP: Fuel and Limestone Handling and Storage Operations

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU5-11</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-15</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: <u>VE</u> <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT JEA-EU5-A11
EMISSIONS UNIT COMMENT

ATTACHMENT JEA-EU5-A11

EMISSIONS UNIT COMMENT

Fugitive particulate matter emissions are generated from coal receiving, storage and transfer systems at the coal and petroleum coke storage yard, and from limestone handling and storage systems (EU023). Particulate matter emissions and visible emissions are controlled using fabric filter systems, water sprays, wetting agents, and full enclosures or partial enclosures, covers and wind screens, where appropriate and required by permit. EU023 consists of the following emissions units/points:

- 023a – Rotary Railcar Dumper Building
- 023b – Conveyor C-3 Tunnel Ventilation (6,400 cfm)
- 023b – Conveyor C-3 Tunnel Ventilation (6,400 cfm)
- 023b – Conveyor C-3 Tunnel Ventilation (21,600 cfm)
- 023c – Shiphold Operations
- 023d – Ship Unloader Hopper and Spillage Collector Transfers
- 023d – Ship Unloader Hopper to Transfer CT-1, Spillage Conveyor
- 023e – Fuel Transfer Building (DC-2)
- 023e – Transfer Stations Nos. 1 thru 7
- 023e – Transfer Point 9GC-04 to 9GC-05
- 023f – Stacker/Reclaimer (Stacker Mode)
- 023f – Stacker
- 023f – Reclaimer
- 023g – Emergency Reclaim Hoppers - Load Out
- 023j – Limestone Truck Loadout & Transfer
- 023k – Limestone Storage Pile #1 – Existing
- 023k – Coal Pile
- 023k – Petroleum Coke Pile
- 023l – Limestone Reclaim Hopper with Fabric Filter (3DC-01)
- 023l – Limestone Silos with Fabric Filters (2: 1DC-01 and 2DC-01)
- 023l – Quick Lime Silo with Fabric Filter (used for water treatment)
- 023l – Fuel Handling Building with Fabric Filter (DC-3)
- 023l – Unit #1 Fuel Storage Bins with Fabric Filter (DC-4)
- 023l – Unit #2 Fuel Storage Bins with Fabric Filter (DC-5)

ATTACHMENT JEA-EU5-C3
DESCRIPTION OF EMISSION POINTS

ATTACHMENT JEA-EU5-C3
EMISSION POINT INFORMATION

The SJRPP bottom ash, fly ash and gypsum materials handling and storage operations (EU022) consists of several emissions units/points, which are described in Table 6 (revised) – Part B of Appendix SJRPP of Permit No. 0310045-038-AV. Following is the description of EU022 in Table 6:

EU ID	Emission Unit/Point	Type	VE Limit (%)	AQCS	Predicted Emissions (lb/hr)	VE Testing Frequency	Rationale
023a	Rotary Railcar-Dumper Building	Point-Fugitive	10	1, 2, 4, 6	0.15	Upon Request	No emissions vent, minor emissions, enclosed source w/spray bar
023b	Conveyor C-3 Tunnel Ventilation – 6,400 cfm; No control	Point-Vent	5	4	0.32	Upon Renewal of Title V	Provides tunnel ventilation only, minor emissions
023b	Conveyor C-3 Tunnel Ventilation – 6,400 cfm; No control	Point-Vent	5	1, 3, 4	0.32	Upon Renewal of Title V	Provides tunnel ventilation only, minor emissions
023b	Conveyor C-3 Tunnel Ventilation – 21,600 cfm; No control	Point-Vent	5	1, 4	0.32	Upon Renewal of Title V	Provides tunnel ventilation only, minor emissions
023c	Shiphold Operations	Fugitive	10	1, 4, 6	0.54	Upon Request	No emissions vent, minor emissions
023d	Ship Unloader Hopper and Spillage Collector Transfers	Fugitive	10	1, 3, 4, 6	0.28	Upon Request	No emissions vent, minor emissions
023d	Ship Unloader Hopper to Transfer CT-1, Spillage Conveyor	Fugitive	10	1, 3, 4, 6	1	Upon Request	Enclosed conveyor, no emissions vent
023e	Fuel Transfer Building (DC-02)	Fugitive	10	1, 3, 4	0.65	Upon Request	No emissions
023e	Transfer Station No. 1	Fugitive	5	1, 2, 4	0.04	Upon Request	Enclosed conveyor, no emissions vent
023e	Transfer Station No. 2	Fugitive	5	1, 2, 4	0.04	Upon Request	Enclosed conveyor, no emissions vent
023e	Transfer Station No. 3	Fugitive	5	1, 2, 4	0.04	Upon Request	Enclosed conveyor, no emissions vent
023e	Transfer Station No. 4	Fugitive	5	1, 4	0.04	Upon Request	Enclosed conveyor, no emissions vent
023e	Transfer Station No. 5	Fugitive	5	1, 4	0.04	Upon Request	Enclosed conveyor, no emissions vent
023e	Transfer Station No. 6	Fugitive	5	1, 4	0.04	Upon Request	Enclosed conveyor, no emissions vent
023e	Transfer Station No. 7	Fugitive	5	1, 4	0.04	Upon Request	Enclosed conveyor, no emissions vent
023e	Transfer Point 9GC-04 to 9GC-05	Fugitive	5	1	0.007	Upon Request	No emissions vent, minor emissions (gypsum)

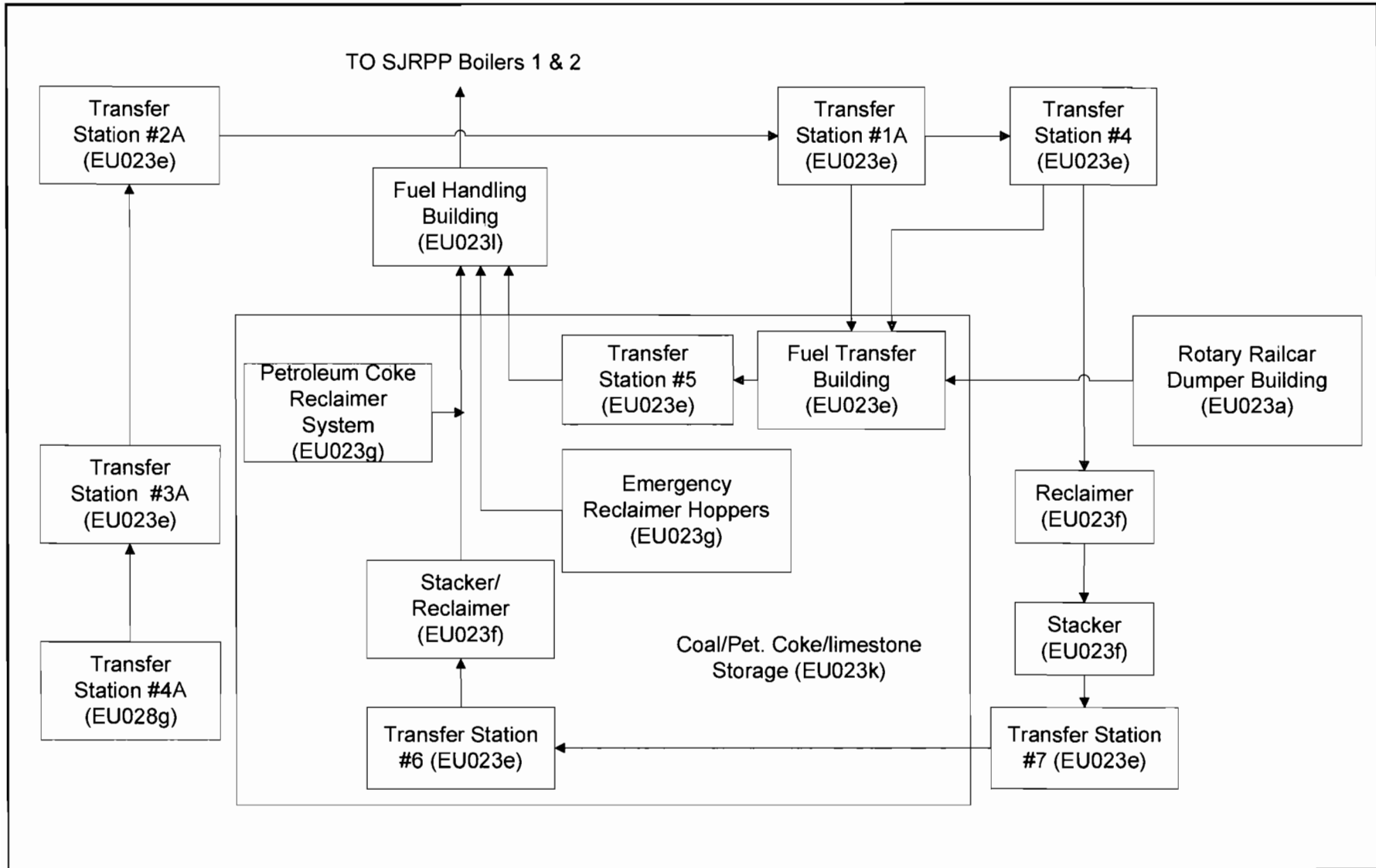
EU ID	Emission Unit/Point	Type	VE Limit (%)	AQCS	Predicted Emissions (lb/hr)	VE Testing Frequency	Rationale
023f	Stacker/Reclaimer (Stacker Mode)	Fugitive	10	1, 3	2.29	Upon Request	No emissions vent, minor emissions
023f	Stacker	Fugitive	10	1, 3	1.15	Upon Request	No emissions vent, minor emissions
023f	Reclaimer	Fugitive	10	1, 3	0.43	Upon Request	No emissions vent, minor emissions
023g	Emergency Reclaim Hoppers – Loadout	Fugitive	10	1	0.29	Upon Request	Same as other reclaim systems; not typically used
023j	Limestone Truck Loadout & Transfer	Fugitive	10	1	0.1	Upon Request	No emissions vent, minor emissions.
023k	Limestone Storage Pile #1 – Existing	Fugitive	10	1	0.26	Upon Request	No emissions location, minor emissions
023k	Limestone Storage Pile #2 – Fuel Yard	Fugitive	10	1, 2, 3	0.71	Upon Request	No emissions location, minor emissions.
023k	Limestone Reclaim Loadout – Grizzley	Fugitive	10	1, 3	None	Upon Request	Minor emissions
023k	Coal Pile	Fugitive	10	1, 2, 3	0.26	Upon Request	No emissions location, minor emissions
023k	Petroleum Coke Pile	Fugitive	10	1, 2, 3	0.71	Upon Request	No emissions location, minor emissions
023l	Limestone Reclaim Hopper with Fabric Filter (3DC-01)	Point-Vent	5	1, 4, 5	0.14	Annually	Vent with minor emissions
023l	Limestone Silos with Fabric Filters (2: 1DC-01 and 2DC-01)	Point-Vent	5	1, 4, 5	0.05	Annually	Minor emissions
023l	Quick Lime Silo with Filter Vent (used for water)	Point-Vent	5	4, 5	None	Upon Renewal of Title V	Minor emission source, low volume material
023l	Fuel Handling Building with Fabric Filter (DC-3)	Point-Vent	5	1, 4, 5	0.24	Annually	Vent with minor emissions
023l	Unit #1 Fuel Storage Bins with Fabric Filter (DC-4)	Point-Vent	5	1, 4, 5	0.009	Annually	Vent with minor emissions
023l	Unit #2 Fuel Storage Bins with Fabric Filter (DC-5)	Point-Vent	5	1, 4, 5	0.009	Annually	Vent with minor emissions

Air Quality Control Systems (AQCS)

1. Conditioned Materials
 2. Wet Suppression, as needed
 3. Water Sprays, as needed
 4. Enclosures (Total, Partial, Covers, & Wind Screens)
 5. Dust Control System – AQCS
 6. Best Operating Practices
- d. Predicted emissions (lbs/hr): these values were predicted/estimated and used in a preliminary screening/modeling evaluation for as permitting action (PSD-FL-010) and are not considered to be allowable emission limits.

* Concrete Structure.

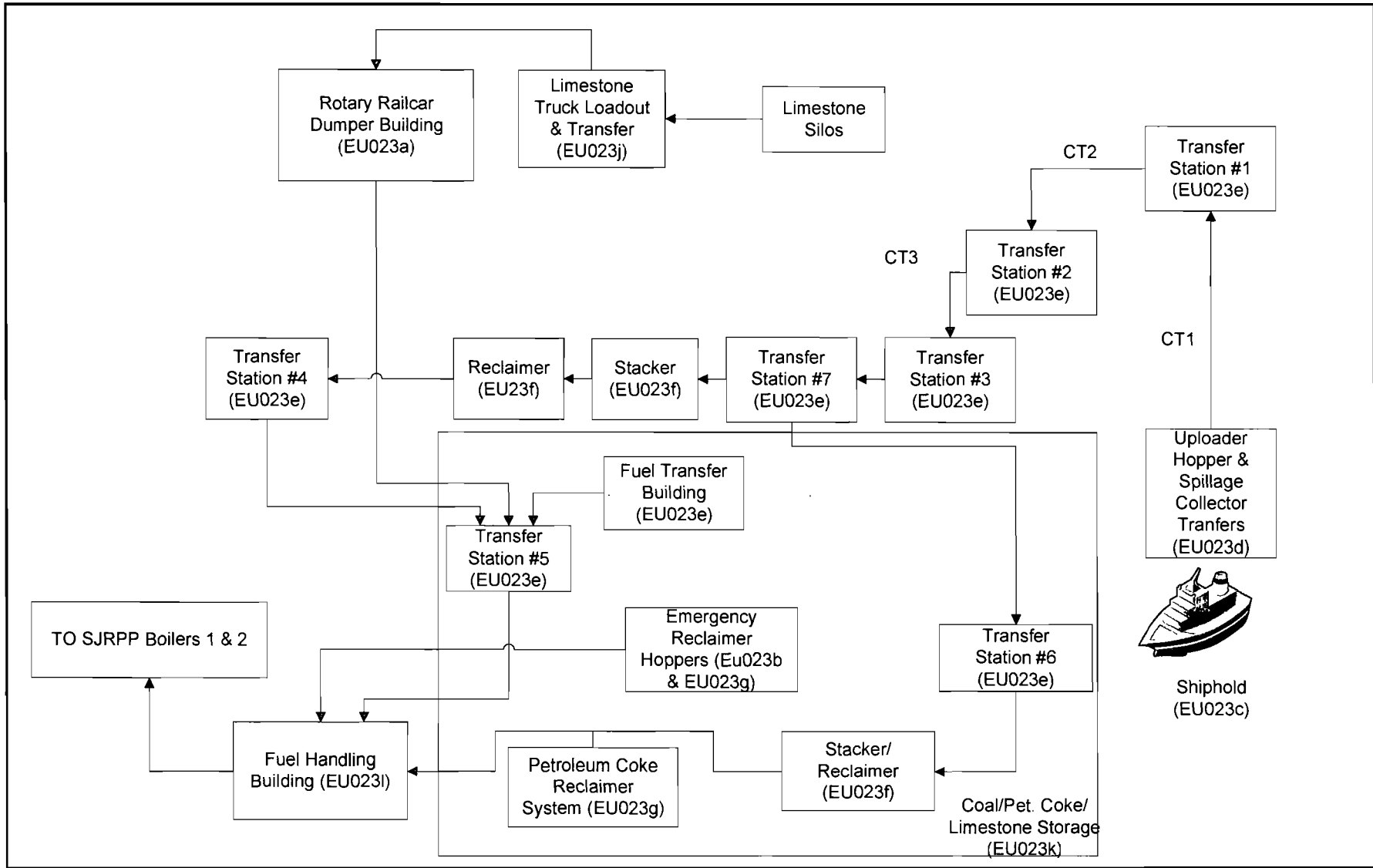
ATTACHMENT JEA-EU5-I1
PROCESS FLOW DIAGRAM



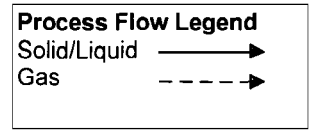
Attachment JEA-EU5-11a
 Process Flow Diagram
 SJRPP: Fuel and Limestone Handling and Storage Operations

Process Flow Legend
 Solid/Liquid ———→
 Gas - - - - -→





Attachment JEA-EU5-11b
 Process Flow Diagram
 SJRPP: Fuel and Limestone Handling and Storage Operations



EMISSIONS UNIT INFORMATION

Section [6]

SJRPP: Cooling Towers (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 [6]

SJRPP: Cooling Towers (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:
SJRPP: Cooling Towers (2)

3. Emissions Unit Identification Number: **024**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

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

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment:
Two cooling towers with drift eliminators for controlling particulate emissions.

EMISSIONS UNIT INFORMATION

Section [6]

SJRPP: Cooling Towers (2)

Emissions Unit Control Equipment/Method: Control 1 of 1

1. Control Equipment/Method Description: Drift eliminators
2. Control Device or Method Code: 015

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [6]

SJRPP: Cooling Towers (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:	million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	24 hours/day 52 weeks/year	7 days/week 8,760 hours/year
6. Operating Capacity/Schedule Comment:	Emissions unit is allowed to operate continuously (8,760 hr/yr).	

EMISSIONS UNIT INFORMATION

Section [6]

SJRPP: Cooling Towers (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:		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Cooling tower vents			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet	
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: 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:			

EMISSIONS UNIT INFORMATION

Section [6]

SJRPP: Cooling Towers (2)

D. SEGMENT (PROCESS/FUEL) INFORMATION

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

1. Segment Description (Process/Fuel Type): Natural Draft Cooling Towers		
2. Source Classification Code (SCC): 3-85-001-02		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

**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: 134 lb/hour 586.9 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: Reference:		7. Emissions Method Code: 0	
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: Hourly from each cooling tower = 67 lb/hr (0310045-038-AV). Annual from each cooling tower = 67 lb/hr x 8,760 hr/yr / 2,000 lb/ton = 293.46 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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: 67 lb/hr/tower	4. Equivalent Allowable Emissions: 134 lb/hour 586.9 tons/year
5. Method of Compliance: None (testing not required due to physical layout of cooling towers).	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on BACT determination. PSD-FL-010C, Table 6 (Revised) – Part A. See Permit No. 0310045-038-AV.	

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 [6]

SJRPP: Cooling Towers (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 ____ of ____

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

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [6]

SJRPP: Cooling Towers (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 ____ 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:	

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 [6]

SJRPP: Cooling Towers (2)

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-15</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [7]

NGS - Boiler Nos. 1 and 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 [7]

NGS - Boiler Nos. 1 and 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:
NGS Circulating Fluidized Bed Boiler No. 1 and 2

3. Emissions Unit Identification Number: **026 and 027**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date: Boiler No. 1: Feb 2002 Boiler No. 2: May 2002	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)
- Acid Rain Unit
- CAIR Unit

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

10. Generator Nameplate Rating: **595 MW (297.5 MW for each boiler)**

11. Emissions Unit Comment:

EMISSIONS UNIT INFORMATION

Section [7]

NGS - Boiler Nos. 1 and 2

Emissions Unit Control Equipment/Method: Control 1 of 4

1. Control Equipment/Method Description:
Dry Limestone Injection

2. Control Device or Method Code: **041**

Emissions Unit Control Equipment/Method: Control 2 of 4

1. Control Equipment/Method Description:
Spray Dryer Absorber (SDA) polishing scrubber

2. Control Device or Method Code: **013**

Emissions Unit Control Equipment/Method: Control 3 of 4

1. Control Equipment/Method Description:
Fabric Filter - Low Temperature (T < 180F)

2. Control Device or Method Code: **018**

Emissions Unit Control Equipment/Method: Control 4 of 4

1. Control Equipment/Method Description:
Selective Noncatalytic Reduction (SNCR) for NOx

2. Control Device or Method Code: **107**

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [7]

NGS - Boiler Nos. 1 and 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: EU026-EU027		2. Emission Point Type Code: 2	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: The combustion gases exhaust through a 495-ft stack.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NGS Boiler No. 2 (EU026) and Boiler No. 1 (EU027) share a common stack. The common stack contains two separate flues, one for each CFB boiler.			
5. Discharge Type Code: V	6. Stack Height: 495 feet	7. Exit Diameter: 15 feet	
8. Exit Temperature: 144°F	9. Actual Volumetric Flow Rate: 700,000 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: Each boiler exhausts through its own flue but through a common stack. Stack parameters are for each boiler and based on Title V permit No. 0310045-038-AV.			

EMISSIONS UNIT INFORMATION

Section [7]

NGS - Boiler Nos. 1 and 2

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 6

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Bituminous/Subbituminous Coal; Coal and coal treated with a latex binder, petroleum coke		
2. Source Classification Code (SCC): 1-01-002-18	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 221.1	5. Maximum Annual Rate: 1,937,011	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 25
10. Segment Comment: Maximum rates based on the maximum heat input rate of 5,528 MMBtu/hr. Maximum hourly rate = 5,528 MMBtu/hr/(25 MMBtu/ton) = 221.1 tons/hr. Maximum annual rate = 221.1 tons/hr x 8,760 hr/yr = 1,937,011 TPY		

Segment Description and Rate: Segment 2 of 6

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Petroleum coke		
2. Source Classification Code (SCC): 1-01-008-01	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 212.6	5. Maximum Annual Rate: 1,862,510	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 26
10. Segment Comment: Maximum rates based on the maximum heat input rate of 5,528 MMBtu/hr. Maximum hourly rate = 5,528 MMBtu/hr/(26 MMBtu/ton) = 212.6 tons/hr. Maximum annual rate = 212.6 tons/hr x 8,760 hr/yr = 1,862,510 TPY		

EMISSIONS UNIT INFORMATION

Section [7]

NGS - Boiler Nos. 1 and 2

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

Segment Description and Rate: Segment 3 of 6

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Landfill gas		
2. Source Classification Code (SCC): 1-01-006-01		3. SCC Units: Million Cubic Feet Burned
4. Maximum Hourly Rate: 0.012	5. Maximum Annual Rate: 102.5	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 500
10. Segment Comment: 195 cf/min x 60 min/hr = 0.0117x10⁶ cf/hr 0.0117x10⁶ cf/hr x 1 yr/8,760 hr = 102.5x10⁶ cf/hr Represents total landfill gas to both boilers.		

Segment Description and Rate: Segment 4 of 6

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 Burned
4. Maximum Hourly Rate: 0.62	5. Maximum Annual Rate: 2,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 2 gr/100 scf	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1022
10. Segment Comment: Rates are total for both boilers.		

EMISSIONS UNIT INFORMATION

Section [7]

NGS - Boiler Nos. 1 and 2

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

Segment Description and Rate: Segment 5 of 6

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Electric Generation; Distillate Oil: Grades 1 and 2 Oil		
2. Source Classification Code (SCC): 1-01-005-01	3. SCC Units: 1,000 Gallons burned	
4. Maximum Hourly Rate: 4.52	5. Maximum Annual Rate: 3,432.8	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.05	8. Maximum % Ash:	9. Million Btu per SCC Unit: 140
10. Segment Comment: Rates are total for both boilers. Max Sulfur content limited to 0.05%.		

Segment Description and Rate: Segment 6 of 6

1. Segment Description (Process/Fuel Type): External Combustion Boiler; Electric Generation; Wood/Bark Waste		
2. Source Classification Code (SCC): 1-01-009-02	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 175,200	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 16
10. Segment Comment: Maximum daily rate = 480 tons/day total for both boilers. Maximum annual rate = 480 x 365 = 175,200 TPY		

EMISSIONS UNIT INFORMATION

Section [7]

NGS - Boiler Nos. 1 and 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	107		EL
CO			EL
SO2	041	013	EL
VOC			EL
PM	018		EL
PM10	018		EL
Mercury (H114)	013	018	EL
PB	018		EL
SAM	041	013	EL
HF (H107)	013		EL
HCl (H106)	013		NS
HAPs			NS

EMISSIONS UNIT INFORMATION

Section [7]
 NGS - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION

Page [1] of [10]
 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

1. Pollutant Emitted: NOx		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 497.5 lb/hour 2,179 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: 0.09 lb/MMBtu (30-day rolling average) Reference: Permit No. 0310045-003-AC/PSD-FL-265		7. Emissions Method Code: 0	
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: Hourly NOx emissions rate: 0.09 lb/MMBtu x 5,528 MMBtu/hr = 497.5 lb/hr. Annual NOx emissions rate: 497.5 lb/hr x 8,760 hr/yr / (2,000 lb/ton) = 2,179 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: NOx emissions from CFB Boilers Nos. 1 and 2 and Boiler No. 3 combined are limited to 3,600 TPY (rolling average) based on Permit No. 0310045-003-AC/PSD-FL-265.			

**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 3

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.09 lb/MMBtu	4. Equivalent Allowable Emissions: 497.5 lb/hour 2,179 tons/year
5. Method of Compliance: Compliance with the NOx emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Represents total of both boilers. Based on Permit No. 0310045-003-AC/PSD-FL-265.	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.6 lb/MMBtu	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: Compliance with the NOx emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 60, Subpart Da. Represents total for both boilers. Equivalent annual = 0.6 lb/MMBtu x 5,528 MMBtu/hr x 8,760 hr/yr x (ton/2,000 lb) = 14,527.6 TPY.	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 3,600 TPY	4. Equivalent Allowable Emissions: lb/hour 3,600 tons/year
5. Method of Compliance: Compliance with the NOx emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): NOx from CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 combined shall not exceed 3,600 tons during any consecutive 12-month period on a rolling basis. (0310045-003-AC/PSD-FL-265)	

EMISSIONS UNIT INFORMATION

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NGS - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION

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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: 700 lb/hour 3,066 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: 350 lb/hr or 1,533 TPY for each boiler Reference: Permit No. 0310045-003-AC/PSD-FL-265		7. Emissions Method Code: 0	
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: Annual rate: 2 boilers x 350 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 3,066 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: CO emissions limited to 350 lb/hr (24-hour block average) or 1,533 TPY from either boiler.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [7]
NGS - Boiler Nos. 1 and 2

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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 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 350 lb/hr, 24-hr block, each boiler	4. Equivalent Allowable Emissions: 700 lb/hour 3,066 tons/year
5. Method of Compliance: Compliance with the CO emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Based on Permit No. 0310045-003-AC/PSD-FL-265. Represents total of both boilers.	

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 [7]
NGS - Boiler Nos. 1 and 2

Page [3] of [10]
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: 1,106 lb/hour 3,632 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: 0.2 lb/MMBtu (24-hour block average) 0.15 lb/MMBtu (30-day rolling average)		7. Emissions Method Code: 0	
Reference: Permit No. 0310045-003-AC/PSD-FL-265			
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 checked="" type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly SO2 emissions rate (24-hour block average): 0.2 lb/MMBtu x 5,528 MMBtu/hr = 1,106 lb/hr. Hourly SO2 emissions rate (30-day rolling average): 0.15 lb/MMBtu x 5,528 MMBtu/hr = 829 lb/hr. Maximum potential annual emissions = 829 lb/hr x 8760 hr/yr / (2,000 lb/ton) = 3,632 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: SO2 emissions from CFB Boilers Nos. 1 and 2 and Boiler No. 3 combined are limited to 12,284 TPY (rolling average) (Permit 0310045-003-AC/PSD-FL-265).			

**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 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.20 lb/MMBtu (24-hour block average)	4. Equivalent Allowable Emissions: 1,106 lb/hour 3632 tons/year
5. Method of Compliance: Compliance with the SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0310045-003-AC/PSD-FL-265 Represents total of both boilers.	

Allowable Emissions Allowable Emissions 2 of 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.15 lb/MMBtu (30-day rolling average)	4. Equivalent Allowable Emissions: 829 lb/hour 3,632 tons/year
5. Method of Compliance: Compliance with the SO2 emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Based on Permit No. 0310045-003-AC/PSD-FL-265. Represents total of both boilers.	

Allowable Emissions Allowable Emissions 3 of 4

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: lb/hour tons/year
5. Method of Compliance: Compliance with the SO₂ emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 60, Subpart Da. Represents total of both boilers.	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [7]
NGS - Boiler Nos. 1 and 2

Page [3] of [10]
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 4 of 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 12,284 TPY	4. Equivalent Allowable Emissions: lb/hour 12,284 tons/year
5. Method of Compliance: Compliance with the SO₂ emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Description of Operating Method): SO₂ emissions from CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 combined are limited to 3,600 tons during any consecutive 12-month period on a rolling basis. (0310045-003-AC/PSD-FL-265).	

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

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 NGS - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION

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 Volatile Organic Compounds - VOC

**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: 28 lb/hour 123.0 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: 14 lb/hr or 61.5 TPY for each boiler Reference: Permit No. 0310045-038-AV		7. Emissions Method Code: 0	
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:			
11. Potential, Fugitive, and Actual Emissions Comment: VOC emissions limit based on a 3 hour average. Emissions represent 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: 14 lb/hr	4. Equivalent Allowable Emissions: 28 lb/hour 123 tons/year
5. Method of Compliance: Test at least once every 5 years using methods 18, 25, or 25A. Compliance with CO limits based on CEMS data can be used as surrogate.	
6. Allowable Emissions Comment (Description of Operating Method): Based on Permit No. 0310045-003-AC/PSD-FL-265. Represent total for both boilers.	

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: 61 lb/hour 266 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: 0.011 lb/MMBtu (3-hour average) Reference: Permit No. 0310045-003-AC/PSD-FL-265.		7. Emissions Method Code: 0	
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: Hourly PM emissions rate: 0.011 lb/MMBtu x 5,528 MMBtu/hr = 61 lb/hr Annual PM emissions rate: 61 lb/hr x 8,760 hr/yr / (2,000 lb/ton) = 266 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: PM emissions from CFB Boilers Nos. 1 and 2 and Boiler No. 3 combined are limited to 881 TPY (rolling average) based on 0310045-003-AC/PSD-FL-265. Emissions represent total for both boilers and based on 3-hour average.			

**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 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.011 lb/MMBtu, 3-hour average	4. Equivalent Allowable Emissions: 61 lb/hour 266 tons/year
5. Method of Compliance: EPA Methods 201 or 201A to determine compliance with the PM emissions while firing petroleum coke.	
6. Allowable Emissions Comment (Description of Operating Method): If petroleum coke has been fired for less than 400 hours during the previous federal fiscal year, the annual testing may be performed while firing coal. Represents total of both boilers.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour 881 tons/year
5. Method of Compliance: Formula in G.33b of Permit No. 0310045-038-AV will be used to determine compliance with the PM emissions.	
6. Allowable Emissions Comment (Description of Operating Method): Stack emissions of particulate matter (PM) from CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 combined are limited to 881 tons during any consecutive 12-month period on a rolling basis (0310045-003-AC/PSD-FL-265).	

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

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 NGS - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION

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 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: 61 lb/hour 266 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: 0.011 lb/MMBtu (3-hour average)		7. Emissions Method Code: 0	
Reference: Permit No. 0310045-003-AC/PSD-FL-265			
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: Hourly PM emissions rate: 0.011 lb/MMBtu x 5,528 MMBtu/hr = 61 lb/hr Annual PM emissions rate: 61 lb/hr x 8,760 hr/yr / (2,000 lb/ton) = 266 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: PM emissions from CFB Boilers Nos. 1 and 2 and Boiler No. 3 combined are limited to 881 TPY (rolling average) based on 0310045-003-AC/PSD-FL-265. Emissions represent total for both boilers and based on 3-hour average.			

**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: 0.011 lb/MMBtu, 3-hour average	4. Equivalent Allowable Emissions: 61 lb/hour 266 tons/year
5. Method of Compliance: EPA Methods 201 or 201A to determine compliance with the PM emissions while firing petroleum coke.	
6. Allowable Emissions Comment (Description of Operating Method): If petroleum coke has been fired for less than 400 hours during the previous federal fiscal year, the annual testing may be performed while firing coal. Represents total of both boilers.	

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: Mercury		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.06 lb/hour 0.26 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: 0.03 lb/hr (6 hour average) for each boiler Reference: Permit No. 0310045-003-AC/PSD-FL-265		7. Emissions Method Code: 0	
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: Annual Hg emissions rate: 2 boilers x 0.03 lb/hr x 8,760 hr/yr/ (2,000 lb/ton) = 0.26 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Mercury emissions are based on a 6 hour average. Emissions represent 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: 0.03 lb/hr, 6-hour average, each boiler	4. Equivalent Allowable Emissions: 0.06 lb/hour 0.26 tons/year
5. Method of Compliance: Initial compliance test only using EPA Methods 29, 101 or 101A	
6. Allowable Emissions Comment (Description of Operating Method): Initial compliance tests only will be performed on CFB Boiler No. 2 while firing coal and while firing petroleum coke (0310045-003-AC/PSD-FL-265).	

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: Lead		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.14 lb/hour 0.62 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: 0.07 lb/hr (3 hour average) for each boiler Reference: Permit No. 0310045-003-AC/PSD-FL-265		7. Emissions Method Code: 0	
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: Annual PB emissions rate: 2 boilers x 0.07 lb/hr x 8,760 hr/yr / (2,000 lb/ton) = 0.62 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Lead emissions are based on a 3 hour average. Emissions represent total for both boilers.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

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 NGS - Boiler Nos. 1 and 2

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 Lead - Pb

**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: 0.07 lb/hr (3 hour average) for each boiler	4. Equivalent Allowable Emissions: 0.14 lb/hour 0.62 tons/year
5. Method of Compliance: Initial compliance test only using EPA Methods 12 or 29 (on Unit 2)	
6. Allowable Emissions Comment (Description of Operating Method): Based on Permit No. 0310045-003-AC/PSD-FL-265.	

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

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NGS - Boiler Nos. 1 and 2

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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

1. Pollutant Emitted: SAM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 2.2 lb/hour 9.6 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: 1.1 lb/hr (3 hour average), each boiler. Reference: Permit No. 0310045-003-AC/PSD-FL-265		7. Emissions Method Code: 0	
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: Annual SAM emissions rate: 2 boilers x 1.1 lb/hr x 8,760 hr/yr / (2,000 lb/ton) = 9.6 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: SAM emissions are based on a 3 hour average. Emissions represent 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: 2.2 lb/hr	4. Equivalent Allowable Emissions: 2.2 lb/hour 9.6 tons/year
5. Method of Compliance: Initial compliance test only using EPA Method 8 (on Unit 2)	
6. Allowable Emissions Comment (Description of Operating Method): Continuous compliance is demonstrated by complying with the SO2 limits based on CEMS data as surrogate. Represents total of both boilers.	

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 [7]
 NGS - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION

Page [10] of [10]
 Hydrogen Fluoride - HF

**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: Hydrogen Fluoride		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.86 lb/hour 3.76 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: 0.43 lb/hr, 3 hour average, each boiler Reference: Permit No. 0310045-003-AC/PSD-FL-265		7. Emissions Method Code: 0	
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: Annual HF emissions rate: 2 boilers x 0.43 lb/hr x 8,760 hr/yr / (2,000 lb/ton) = 3.76 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: HF emissions are based on a 3 hour average. Emissions represent total for both boilers.			

EMISSIONS UNIT INFORMATION

Section [7]
NGS - Boiler Nos. 1 and 2

POLLUTANT DETAIL INFORMATION

Page [10] of [10]
Hydrogen Fluoride - HF

**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: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.43 lb/hr, 3 hour average, each boiler	4. Equivalent Allowable Emissions: 0.86 lb/hour 3.76 tons/year
5. Method of Compliance: Initial compliance test only using EPA Methods 13A or 13B	
6. Allowable Emissions Comment (Description of Operating Method): Based on Permit No. 0310045-003-AC/PSD-FL-265. Represents total of both boilers.	

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 [7]

NGS - Boiler Nos. 1 and 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 **1**

1. Visible Emissions Subtype: VE10	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 10 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: 6 min/hour	
4. Method of Compliance: COMS	
5. Visible Emissions Comment: 6-minute block average, based on Permit No. 0310045-003-AC/PSD-FL-265 and 62-212.400, F.A.C.	

Visible Emissions Limitation: Visible Emissions Limitation **2** 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: % Exceptional Conditions: 27 % Maximum Period of Excess Opacity Allowed: 60 min/hour	
4. Method of Compliance: COMS	
5. Visible Emissions Comment: 40 CFR 60 Subpart Da.	

EMISSIONS UNIT INFORMATION

Section [7]

NGS - 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 5

1. Parameter Code: VE	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: DURAG Model Number: D-R 290 Serial Number: See Comment	
5. Installation Date: 11/03/2011 (Boiler No. 1) 11/02/2011 (Boiler No. 2)	6. Performance Specification Test Date: Nov-Dec 2011
7. Continuous Monitor Comment: Serial Number: NGS CFB Boiler No. 1: 1220448 Serial Number: NGS CFB Boiler No. 2: 1213185	

Continuous Monitoring System: Continuous Monitor 2 of 5

1. Parameter Code: EM	2. Pollutant(s): CO
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Thermo Scientific Model Number: 48ITLE-ACPCB Serial Number: See Comment	
5. Installation Date: 11/1/2009	6. Performance Specification Test Date: 1/21/2010 (Boiler No. 1) 1/7/2010 (Boiler No. 2)
7. Continuous Monitor Comment: Serial Number: NGS CFB Boiler No. 1: 0819830961 Serial Number: NGS CFB Boiler No. 2: 0819830960	

EMISSIONS UNIT INFORMATION

Section [7]

NGS - Boiler Nos. 1 and 2

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**Continuous Monitoring System:** Continuous Monitor **5** of **5**

1. Parameter Code: CO2	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: TECO Model Number: 410i	Serial Number: See Comment
5. Installation Date: 11/1/2009	6. Performance Specification Test Date: 1/21/2010 (Boiler No. 1) 1/7/2010 (Boiler No. 2)
7. Continuous Monitor Comment: Serial Number: NGS CFB Boiler No. 1: 0800226818 Serial Number: NGS CFB Boiler No. 2: 0800226813	

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

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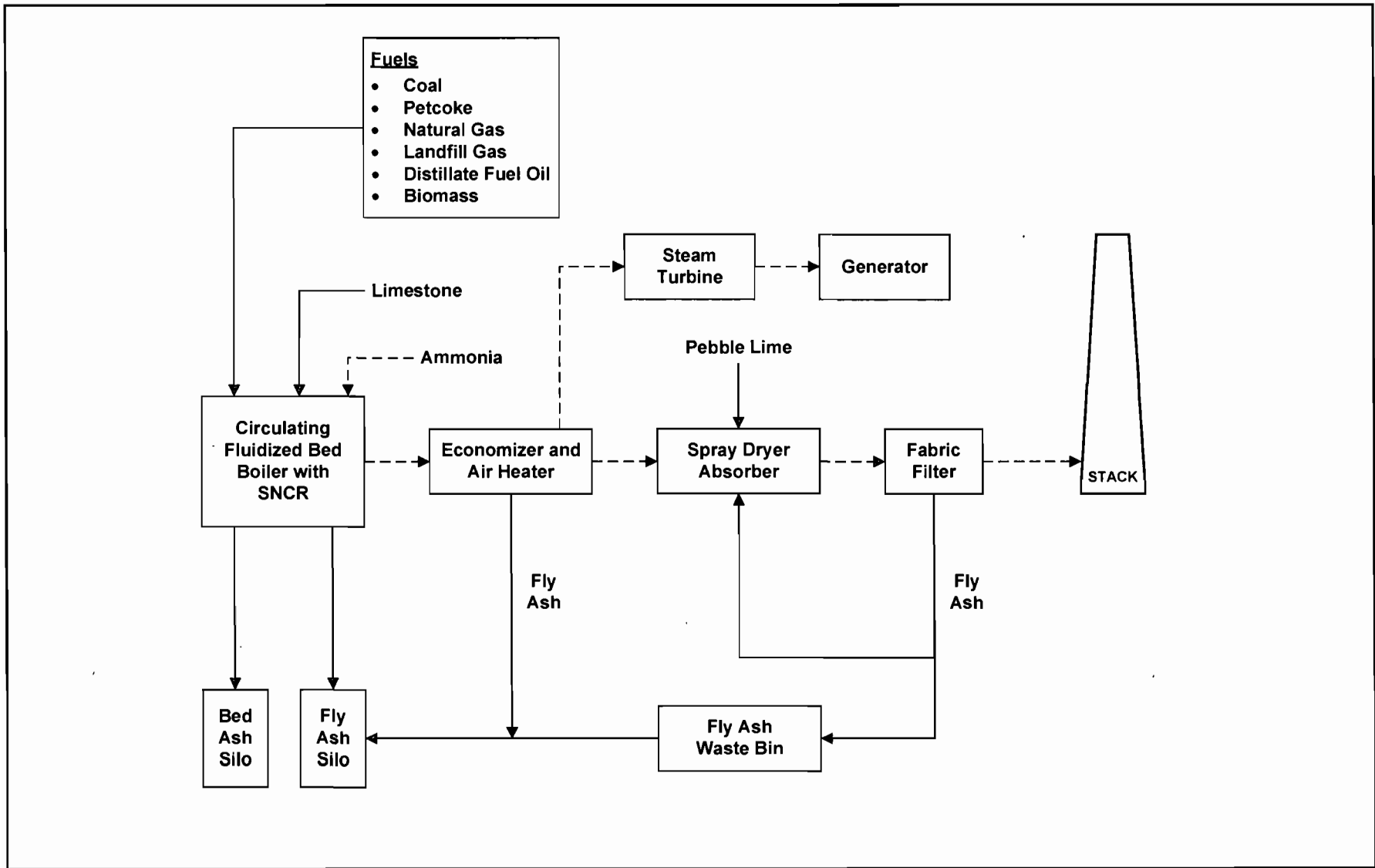
NGS - Boiler Nos. 1 and 2

I. EMISSIONS UNIT ADDITIONAL INFORMATION

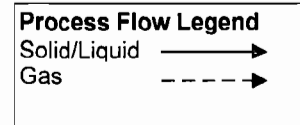
Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU7-I1</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>See JEA-EU1-I2, JEA-EU2-I2 and JEA-EU3-I2</u> <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU7-I3</u> <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I4</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I5</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>February 23/July 18, 2012</u> Test Date(s)/Pollutant(s) Tested: <u>PM, VE</u> <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT JEA-EU7-11
PROCESS FLOW DIAGRAM



Attachment JEA-EU7-11
Process Flow Diagram
Northside Generating Station Units 1 and 2 (EU 27 and 26)



ATTACHMENT JEA-EU7-I3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

JEA
NORTHSIDE GENERATING STATION REPOWERING
CONTROL EQUIPMENT DESCRIPTION

POLISHING SCRUBBER DESCRIPTION

A polishing scrubber is installed downstream of each of the new CFB boilers to reduce sulfur dioxide and particulate emissions to acceptable levels. The system includes an absorber vessel followed by a fabric filter. Draft for the system, which is approximately 10 iwc, is provided by an induced draft fan located downstream of the polishing scrubber system.

SCRUBBER

The scrubbing process is a semi-dry process using calcium products as the reagent for removing sulfur dioxide from the flue gas. Flue gas entering the scrubber at approximately 280° is humidified to within 30 — 42 °F of adiabatic saturation. Sulfur dioxide is absorbed and reacted with the alkaline sorbent to form calcium sulfite and calcium sulfate byproducts. The scrubber system is designed to provide adequate removal efficiency which, in combination with the sulfur dioxide removal efficiency in the CFB boiler, will achieve the allowable sulfur dioxide emission rate.

The source of reagent is a combination of calcium oxide (CaO) in the fly ash from the CFB boiler, recirculated fly ash from the particulate collector and fresh reagent prepared from pebble lime. Fresh reagent is prepared as calcium hydroxide or as a lime slurry. Calcium hydroxide is prepared in a hydrator and is provided with a wet scrubber to reduce particulate emissions. Lime slurry is prepared in a slaker.

FABRIC FILTER

A fabric filter is installed for control of particulate matter. The particulate collector is a pulse jet fabric filter with an expected flow rate of 762,000 ACFM and using high pressure low volume compressed air as the cleaning medium. Flue gas from the polishing scrubber containing calcium sulfite, calcium sulfate, calcium oxide, fuel ash and inert material enter the fabric at a temperature of approximately 150 - 155° F. The fabric filter has eight (8) compartments with a maximum inlet velocity of 1800 fpm. Sufficient cloth area is included to provide a maximum filtration velocity of 3.5 f with one compartment out of service for maintenance. Filter media is a nominal 6" diameter by 18 - 20 ft long bag. A minimum spacing between bags within a compartment is 2 inches. Bag cleaning would be performed on line and would be initiated to limit the pressure drop across the fabric filter to a maximum 6 iwc. The overall particulate removal efficiency would be approximately 99.99%. Particulate matter collected in the hopper is conveyed by a negative pressure pneumatic system to the fly ash silo or recirculated back to the polishing scrubber.

DUST COLLECTION & DUST SUPPRESSION

Dust Collection and Dust Suppression is furnished throughout the system at various transfer points. There is either Dust Collection or Dust Suppression at the points.

DUST COLLECTION

Dust laden air enters the collector via ductwork under suction. The diffuser absorbs the impact of the high velocity dust particles and distributes the flow of the incoming air. The dust laden air travels upward and through the filtration bag. The exterior of the bag filters the air from the particulate.

The collector housing is dust tight and is divided by a cell plate/tubesheet into two plenums. The lower section/dirty air plenum contains the filter bags, discharge hopper, and inlet. The discharge hopper is fitted with an air lock to enable continuous discharge of dust to the conveyed material main stream.

The filter bags fit around and are supported by wire cages. A pulse pipe with multiple orifices is located above each row of filter bags so an orifice is directly above the throat of each venturi in that row.

The upper/clean air plenum houses the blow pipes and supports the air header, solenoid valves, diaphragm valves and provides an exhaust outlet for the filtered air stream to the atmosphere.

The cleaning sequence is as follows:

The cycle timer actuates the normally closed solenoid valve causing it to open. The diaphragm valve opens, as a result of the decrease in pressure from the opening of the solenoid valve. A momentary inrush of high pressure clean and dry compressed air flows from the header to the pulse pipe, down through each venturi, and into each filter bag. Thus all the bags in a single row are cleaned simultaneously. This cleaning process is repeated for each row of bags. The time between pulses and the duration of the pulse is adjustable. A magnehelic gauge shows the pressure drop across the collector and is a good indication of the collector performance. A differential pressure switch will initiate the cleaning sequence based upon the pressure drop of the dust collector.

DUST SUPPRESSION

The chemical/water spray is applied to the conveyed material stream. The conveyed materials are dampened to eliminate dust producing characteristics.

The system shall consist of the following components:

The proportioner mixes the chemical and water in the appropriate ratio.

The spray jet controller governs the flow of mixed solution, supplied by the proportioner, to the spray manifold assemblies.

The spray manifold assemblies, are a series of jets that actually apply the solution to the conveyed material.

The automatic sequencing control panel to provided adjustment of the spraying sequence.

The proportioner and pumping system automatically mixes the chemical solution and water in a preselected ratio, and supplies the mixture to the spray locations. The system shall include a proportioner, a chemical injection pump, inlet water pressure regulator, solution pump, motor drives, control panel, and other necessary equipment.

The material flow switches will activate only when the presence of material is detected. Thus activating the spray flow controllers. The spray flow controllers will control the flow of spray solution to the spray manifold assemblies at the application points.

The spray manifold assemblies are made up of multiple spray housing and strainer assembly with jet nozzles for location in chutes and loading skirts as design requires. The location is such that the water solution is contained in the chute/loading skirt housing.

ATTACHMENT JEA-EU7-IV2
COMPLIANCE ASSURANCE MONITORING

ATTACHMENT JEA-EU7-IV2

COMPLIANCE ASSURANCE MONITORING FOR EU 026 AND 027

The monitoring plan for the baghouses controlling PM emissions from NGS Boilers 1 and 2 are presented below (based on Appendix CAM of Permit No. 0310045-038-AV).

I. Indicator	Stack opacity
Measurement Approach	Continuous opacity monitoring system (COMS)
II. Indicator Range	An excursion is defined as 5 consecutive 6-minute averages of opacity greater than 6.0%.
III. Performance Criteria	
A. Data Representativeness	Based on available data under normal operation, the representative stack opacity of each unit is <5 %. A 50% average opacity above 5% during non-startup or shutdown periods is atypical and may indicate a potential problem with the baghouse.
B. Verification of Operational Status	Annual testing during normal operation is used to calibrate the opacity monitor and determine the opacity and verify particulate mass loading.
C. QA/QC Practices and Criteria	Install and operate COMS according to 40 CFR Appendix B, Performance Specification 1 and general provisions 60.13.
D. Monitoring Frequency	Continuous.
E. Data Collection Procedures	The COMS collects data that are reduced to 6-minute averages. (5 consecutive 6-minute averages greater than 6.0% indicate an excursion)
F. Averaging Period	6 minutes.
IV. Initiation of Corrective Action Procedures	Corrective action shall be initiated with the discovery of 5 consecutive 6-minute averages of opacity greater than the opacity that defines an excursion (as defined in Table 1.). The plant staff that made the discovery shall immediately notify the shift supervisor or responsible official. This action describes a corrective action trigger.
V. Time of Completion of Corrective Action Procedures	As soon as practically possible. The shift supervisor or responsible official will implement the following as a corrective action.
VI. Corrective Action	Procedures as described in the Fabric Filter Bag Inspection and Diagnostic Procedures (FFBIDP) as presented in the Operations and Maintenance Plan (O&M Plan) includes the following alternatives that will be initiated as necessary.
	<ul style="list-style-type: none"> • Perform operational diagnostics to identify cause of the excursion. • If operational diagnostics indicate the failure of a bag(s), the failed bag will be identified and the reason for failure will be identified. • If isolation of the compartment can be accomplished to reduce opacity below the excursion, such measures will be undertaken. • In the event of the need for bag replacement, the task will be undertaken based on procedures described in the O&M Plan for the facility.
	Regardless of the failure mechanism, baghouse operation will be restored such that the cause of excursion is identified and appropriate actions taken to ensure opacity below excursion levels.

ATTACHMENT JEA-EU7-IV3
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT JEA-EU7-IV3 ALTERNATIVE METHODS OF OPERATION

Emission Units 026 and 027 (NGS – CFB Boiler Nos. 1 and 2) are allowed to burn natural gas, No. 2 Fuel oil, coal, biomass, and petroleum coke. The maximum operation heat input rates are 2,764 MMBtu/hr for each boiler. The maximum landfill gas firing rate for the two boilers is 11,700 scf/hr in total. Landfill gas may be burned in combination with other authorized fuels provided the maximum heat input (2,764 MMBtu/hr) to each boiler is not exceeded. The emission unit may operate continuously for 8,760 hours per year.

EMISSIONS UNIT INFORMATION

Section [8]

NGS Materials Handling and Storage Operations

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 [8]

NGS Materials Handling and Storage Operations

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:
Materials Handling and Storage Operations (EU 028), Crusher House Building Baghouse Exhaust (EU 029), Fuel Silos Dust Collectors (EU 031), Limestone Dryers/Mills Building (EU 033), Limestone Prep Building Dust Collectors (EU 034), Limestone Silos Bin Vent Filters (EU 035), Fly Ash Transport Blower Discharge (EU 036), Fly Ash Silos Bin Vents (EU 037), Bed Ash Silos Bin Vents (EU 038), AQCS Pebble Lime Silo (EU 042), Fly Ash Slurry Mix System Vents (EU 051), Bed Ash Slurry Mix System Vents (EU 052), Bed Ash Surge Hopper Bin Vents (EU 053)

3. Emissions Unit Identification Number: **028, 029, 031, 033 through 038, 042, 051, 052, 053**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)

- Acid Rain Unit
- CAIR Unit

9. Package Unit:

Manufacturer:

Model Number:

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment:

The material handling and storage operations at the NGS process ash, limestone, coal, coal coated with latex, and petroleum coke to support the operation of CFB Boilers Nos. 1 and 2 (EUs 026 and 027).

See Attachment JEA-EU8-A11.

EMISSIONS UNIT INFORMATION

Section [8]

NGS Materials Handling and Storage Operations

Emissions Unit Control Equipment/Method: Control 1 of 4

1. Control Equipment/Method Description: Dust suppression by water sprays
2. Control Device or Method Code: 061

Emissions Unit Control Equipment/Method: Control 2 of 4

1. Control Equipment/Method Description: Dust Suppression by Wetting Agents
2. Control Device or Method Code: 062

Emissions Unit Control Equipment/Method: Control 3 of 4

1. Control Equipment/Method Description: Dust Suppression by full or partial enclosures, covers and wind screens
2. Control Device or Method Code: 054

Emissions Unit Control Equipment/Method: Control 4 of 4

1. Control Equipment/Method Description: Fabric filters
2. Control Device or Method Code: 018

EMISSIONS UNIT INFORMATION

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NGS Materials Handling and Storage Operations

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:		2. Emission Point Type Code: 3			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: See Attachment JEA-EU8-C3.					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:					
5. Discharge Type Code:		6. Stack Height: feet		7. Exit Diameter: feet	
8. Exit Temperature: °F		9. Actual Volumetric Flow Rate: 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:					

EMISSIONS UNIT INFORMATION

Section [8]

NGS Materials Handling and Storage Operations

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type): Industrial Processes; Mineral Products; Coal Mining, Cleaning, and Material Handling		
2. Source Classification Code (SCC): 3-05-010-99	3. SCC Units: Tons handled	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: See comment	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Maximum Annual Rates: Coal/Coal coated with latex/Petroleum Coke: 2.42 million tons per year Limestone: 1.45 million tons per year		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Industrial; Distillate Oil: Grades 1 and 2 Oil		
2. Source Classification Code (SCC): 1-02-005-01	3. SCC Units: Thousand gallons burned	
4. Maximum Hourly Rate: 0.426	5. Maximum Annual Rate: 3,731.8	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.05	8. Maximum % Ash:	9. Million Btu per SCC Unit: 136
10. Segment Comment: Hourly rate: 57.9 MMBtu/hr / 136 MMBtu/1,000 gal = 0.426 x 10³ gal/hr Annual rate: 0.426 x 10³ gal/hr x 8,760 hr/yr = 3,731.8 x 10³ gal/yr Based on distillate fuel oil firing in the 3 limestone dryers (EU033) combined.		

EMISSIONS UNIT INFORMATION

Section [8]

NGS Materials Handling and Storage Operations

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

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Industrial; Natural Gas; 10-100 MMBtu/hr		
2. Source Classification Code (SCC): 1-02-006-02		3. SCC Units: Million cubic feet burned
4. Maximum Hourly Rate: 0.057	5. Maximum Annual Rate: 499.3	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1,020
10. Segment Comment: Hourly rate: 57.9 MMBtu/hr / 1,020 MMBtu/MMft³ = 0.057 MMft³/hr Annual rate: 0.057 MMft³/hr x 8,760 hr/yr = 499.3 MMft³/yr Based on natural gas firing in the 3 limestone dryers (EU033) combined.		

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Industrial; Process Gas; Landfill Gas		
2. Source Classification Code (SCC): 1-02-007-11		3. SCC Units: Million cubic feet burned
4. Maximum Hourly Rate: 0.116	5. Maximum Annual Rate: 1,016.2	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 500
10. Segment Comment: Hourly rate: 57.9 MMBtu/hr / 500 MMBtu/MMft³ = 0.116 MMft³/hr Annual rate: 0.116 MMft³/hr x 8,760 hr/yr = 1,016.2 MMft³/yr Based on landfill gas firing in the 3 limestone dryers (EU033) combined.		

EMISSIONS UNIT INFORMATION

Section [8]

NGS Materials Handling and Storage Operations

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
PM	018		EL*
PM10	018		NS
SO2			EL
CO			NS
NOx			NS

* EUs 033, 034, 035

**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: 0.01 grains/dscf	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: Initial testing using EPA Method 5. Annual testing not required. Specific Conditions H.17 and H.18, Permit No. 0310045-038-AV.	
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: SO2		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 3.0 lb/hour 13.2 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: 0.05% by weight sulfur in distillate oil Reference: Permit No. 0310045-038-AV		7. Emissions Method Code: 0	
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: Potential hourly emissions=57.9 MMBtu/hr/ (136 MMBtu/kgal) x 7.1 lbs/gal x 1000 gal/kgal x 0.05/100 x (64/32)=3.0 lbs/hr Potential annual emissions=3.0 lbs/hr x 8,760 hrs/yr / (2,000 lbs/ton)=13.2 TPY			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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: 0.05% by weight sulfur in distillate oil	4. Equivalent Allowable Emissions: 3.0 lb/hour 13.2 tons/year
5. Method of Compliance: Vendor or other fuel sampling and analysis data (using applicable ASTM methods)	
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

Section [8]

NGS Materials Handling and Storage Operations

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<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:	

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 [8]

NGS Materials Handling and Storage Operations

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU8-I1</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU8-I2</u> <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-I5</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: <u>VE</u> <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT JEA-EU8-A11
EMISSIONS UNIT COMMENT

ATTACHMENT JEA-EU8-A11

EMISSION UNIT COMMENT

The Material Handling and Storage Operations (EU028) at the NGS process ash, limestone, coal, coal coated with latex, and petroleum coke to support the operation of CFB Boilers Nos. 1 and 2 (EUs 026 and 027). Each materials handling and storage operation at NGS employs one or more control strategies to limit emissions of particulate matter to meet specific emission limitations and/or visible emissions limits. The control strategies include the use of best operating/design practices, total or partial enclosures, conditioned materials, wet suppression, water sprays, and dust collection systems. Except for the Belt Conveyor 1, all conveyors are enclosed.

EU028 consists of the following emissions units/points:

- 028 – Belt Conveyor No. 1
- 028a – Vessel Hold, Vessel Unloader and Spillage Conveyor
- 028c – Transfer Building 1
- 028d – Transfer Building 5 and limestone loadout chute
- 028g – Transfer Building 2
- 028h – Fuel Storage Domes A & B (includes fuel stackers/reclaimers)
- 028i – Transfer Building 3
- 028o – Plant Transfer Building
- 028p – Limestone Storage Pile and Limestone Reclaim Hoppers
- 028q – Transfer Building 4
- 028v – Transfer Building 6

·k

ATTACHMENT JEA-EU8-C3
DESCRIPTION OF EMISSION POINTS

ATTACHMENT JEA-EU8-C3 EMISSION POINT INFORMATION

This emission unit section addresses several emissions units/points at the NGS. Except for the three limestone dryers (EU033), all the other sources emit only particulate matter emissions including some fugitive emissions sources. The emission control methods for these emissions units are described in Specific Condition No. H.7 of Title V Permit No. 0310045-038-AV, and are also summarized below:

- a. The following materials handling sources are equipped with fabric filter controls:
 - (1) Crusher house building baghouse exhaust (EU-029)
 - (2) Fuel silos dust collectors (EU-031)
 - (3) Limestone dryers – each (3) (EU-033)
 - (4) Limestone prep building dust collectors (EU-034)
 - (5) Limestone silos bin vent filters (EU-035)
 - (6) Fly ash transport blower discharge (EU-036)
 - (7) Fly ash silos bin vents (EU-037)
 - (8) Bed ash silos bin vents (EU-038)
 - (9) AQCS pebble lime silo (EU-042)
 - (10) Fly ash slurry mix system vents (EU-051)
 - (11) Bed ash slurry mix system vents (EU-052)
 - (12) Bed ash surge hopper bin vents (EU-053)

- b. The following materials handling sources use wet suppression, water spray, coverings, and/or conditioned materials to control particulate emissions as needed:
 - (1) Transfer towers (EU-028c, EU-028g, EU-028i, EU-028o, EU-028q and EU-028v)
 - (2) Coal, coal coated with latex and petroleum coke storage building (EU-028h)
 - (3) Transfer Building 5 and limestone loadout chute (EU-028d)
 - (4) Belt Conveyor No. 1 (EU-028)

- c. The following materials handling sources use wet suppression, water spray, partial enclosures, and/or conditioned materials to control particulate emissions as needed:
 - (1) NGS dock vessel unloading operations – vessel hold (EU-028a)
 - (2) NGS dock vessel unloading operations – vessel unloader and spillage conveyor (EU-028a)
 - (3) Limestone storage pile (EU-028p)
 - (4) Limestone reclaim hopper (EU-028p)

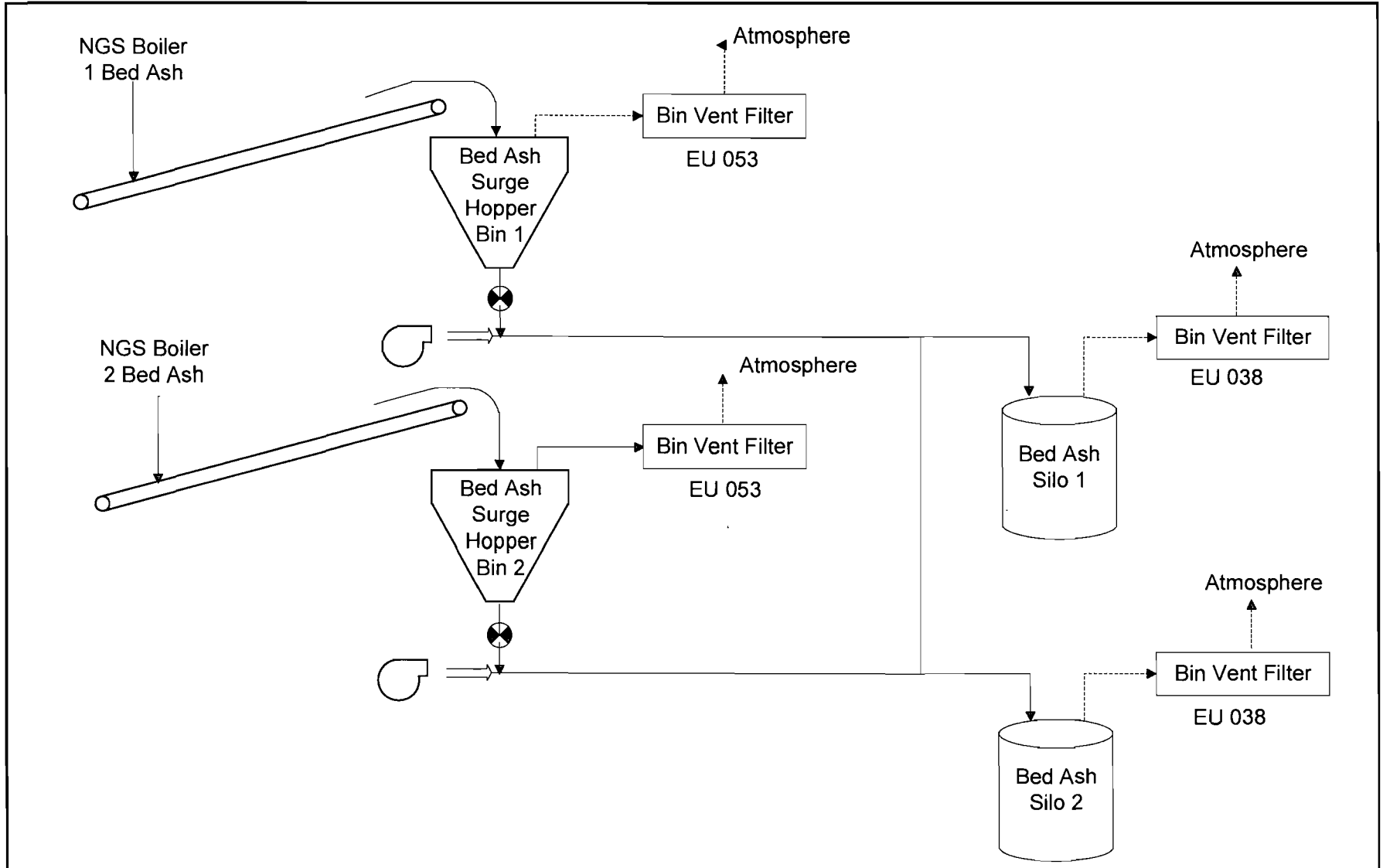
ATTACHMENT JEA-EU8-G1
VISIBLE EMISSIONS SUBTYPE

ATTACHMENT JEA-EU8-G1 VISIBLE EMISSIONS LIMITATION

Visible emissions from the materials processing sources at NGS are limited by Specific Condition No. H.7 of Title V Permit No. 0310045-038-AV, and are also summarized below:



- a. Visible emissions limited to 5% opacity for the following materials handling sources:
- (1) Crusher house building baghouse exhaust (EU-029)
 - (2) Fuel silos dust collectors (EU-031)
 - (3) Limestone dryers – each (3) (EU-033)
 - (4) Limestone prep building dust collectors (EU-034)
 - (5) Limestone silos bin vent filters (EU-035)
 - (6) Fly ash transport blower discharge (EU-036)
 - (7) Fly ash silos bin vents (EU-037)
 - (8) Bed ash silos bin vents (EU-038)
 - (9) AQCS pebble lime silo (EU-042)
 - (10) Fly ash slurry mix system vents (EU-051)
 - (11) Bed ash slurry mix system vents (EU-052)
 - (12) Bed ash surge hopper bin vents (EU-053)
 - (13) Transfer towers (EU-028c, EU-028g, EU-028i, EU-028o, EU-028q and EU-028v)
 - (14) Coal, coal coated with latex and petroleum coke storage building (EU-028h)
 - (15) Transfer Building 5 and limestone loadout chute (EU-028d)
 - (16) Belt Conveyor No. 1 (EU-028)
- b. Visible emissions limited to 10% opacity for the following materials handling sources:
- (1) NGS dock vessel unloading operations – vessel hold (EU-028a)
 - (2) NGS dock vessel unloading operations – vessel unloader and spillage conveyor (EU-028a)
 - (3) Limestone storage pile (EU-028p)
 - (4) Limestone reclaim hopper (EU-028p)

ATTACHMENT JEA-EU8-I1
PROCESS FLOW DIAGRAM

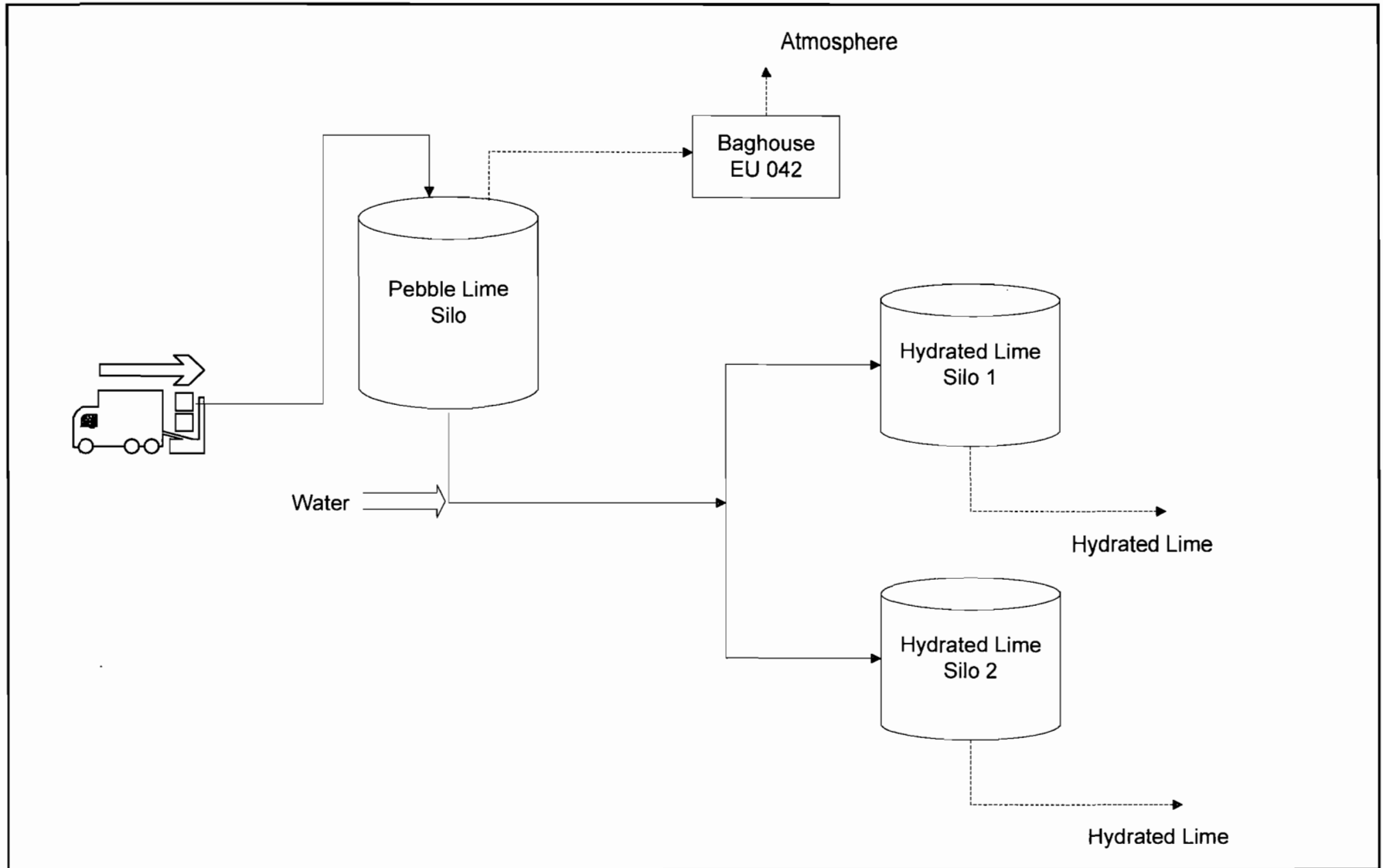


Attachment JEA-EU8-11a
Process Flow Diagram
Northside Generating Station Bed Ash Silo Bin Vents (EU 038),
Bed Ash Surge Hopper Bin Vents (EU 053)

Process Flow Legend

Solid/Liquid 
Gas 

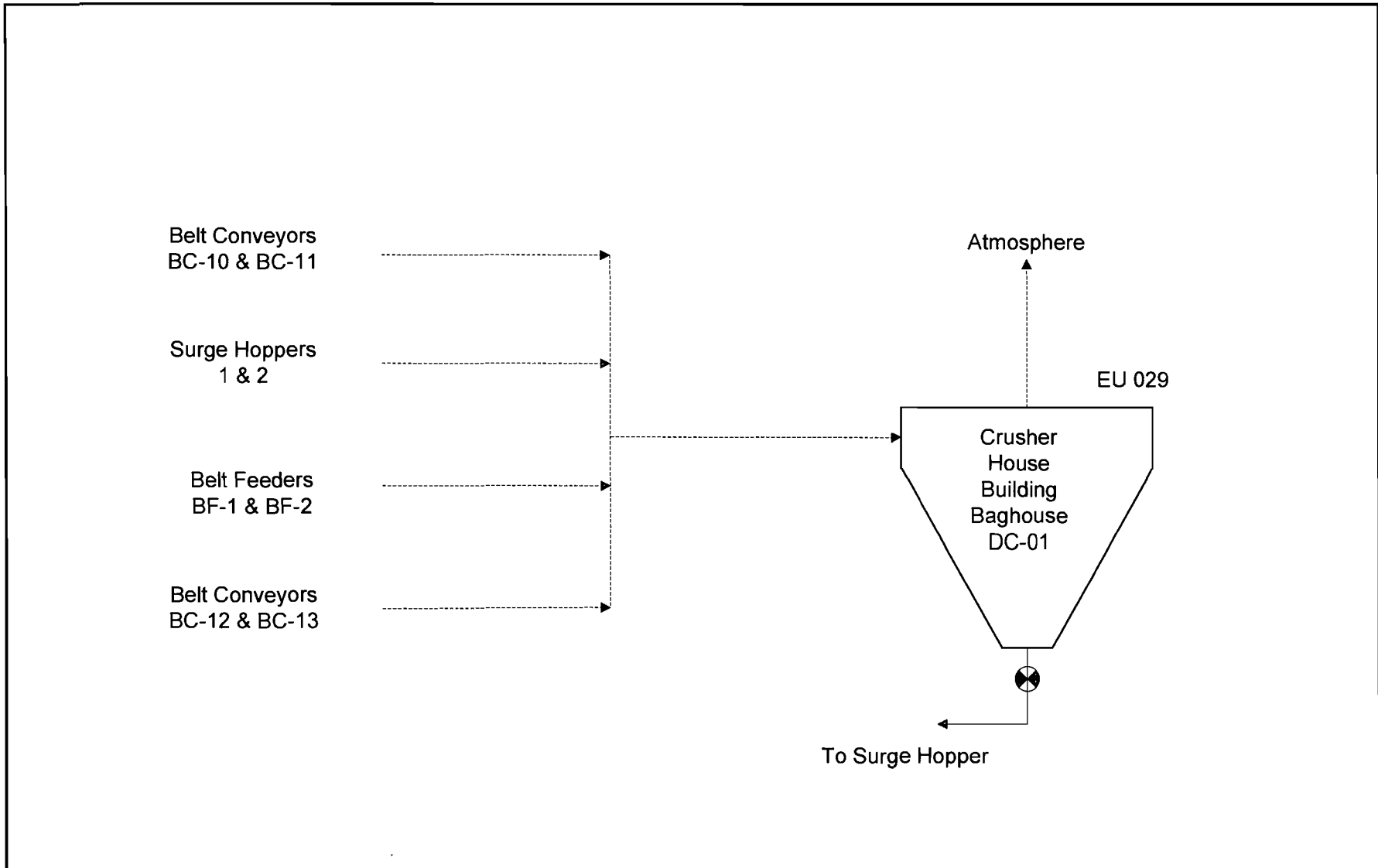




Attachment JEA-EU8-11b
Process Flow Diagram
Northside Generating Station AQCS Pebble Lime
Silo (EU 042)

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

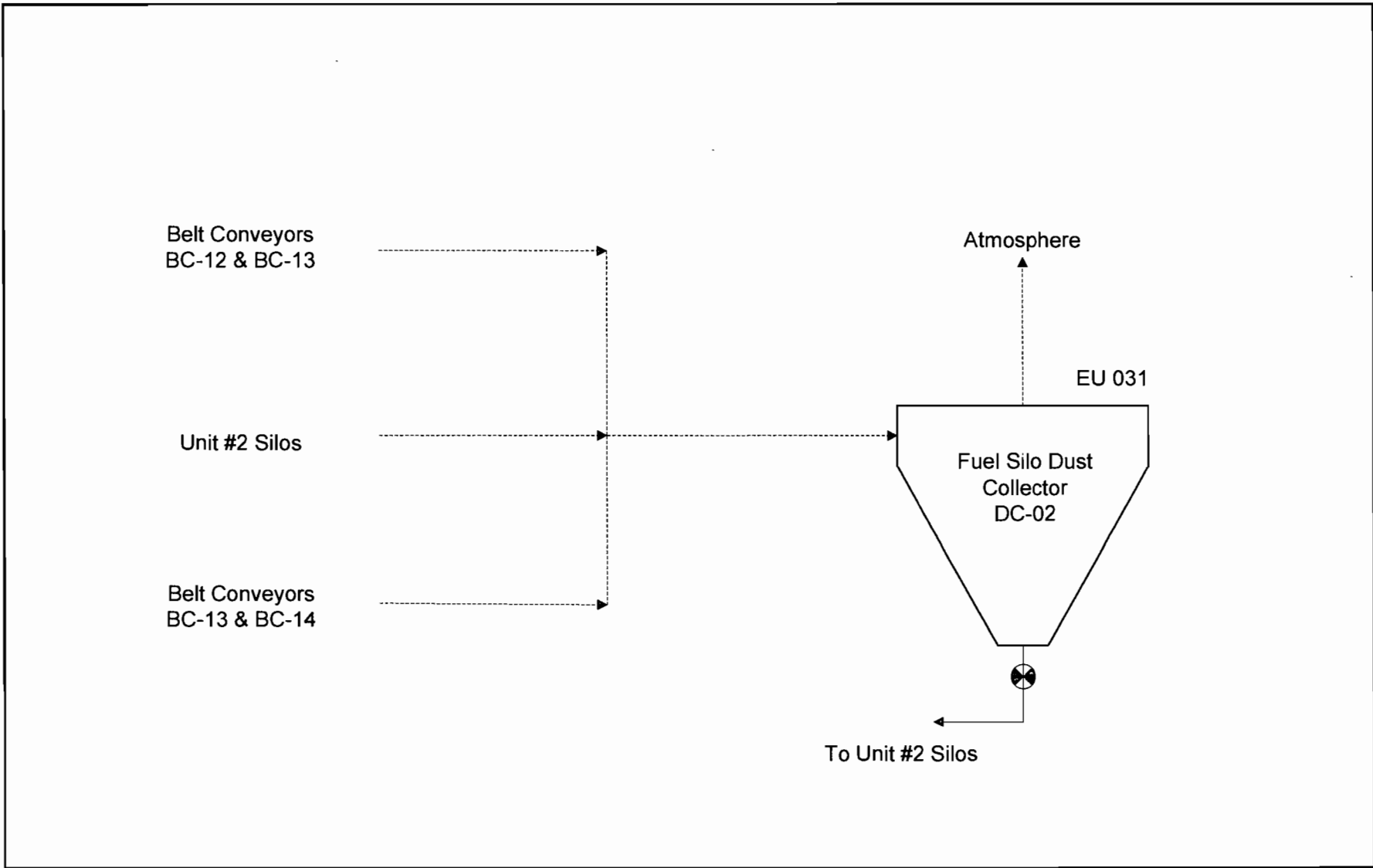




Attachment JEA-EU8-11c
Process Flow Diagram
Northside Generating Station Crusher house Building Baghouse Exhaust (EU 029)

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



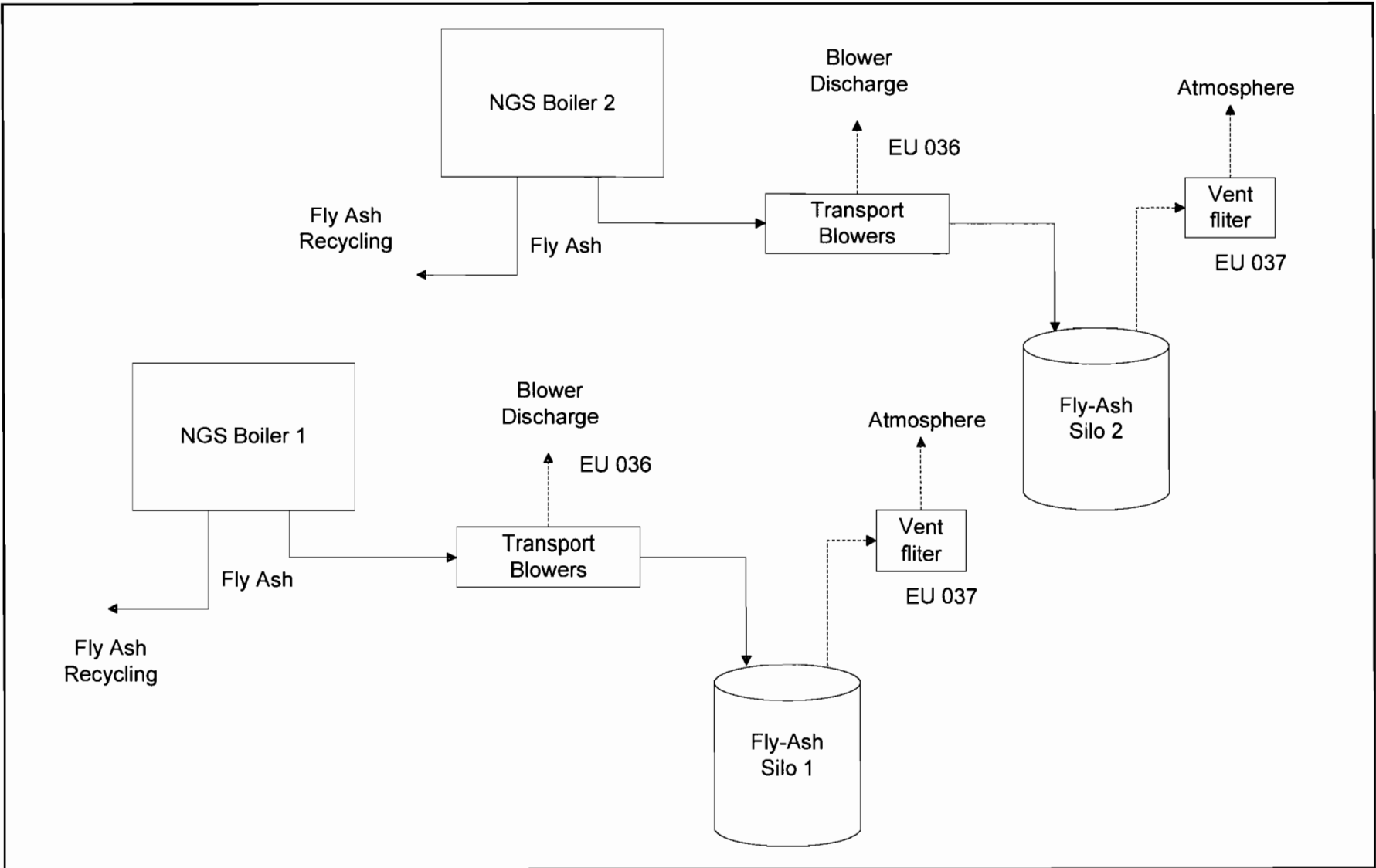


Attachment JEA-EU8-11d
Process Flow Diagram
Northside Generating Station Fuel Silo Dust Collectors (EU 031)

Process Flow Legend

Solid/Liquid ———→
Gas -----→

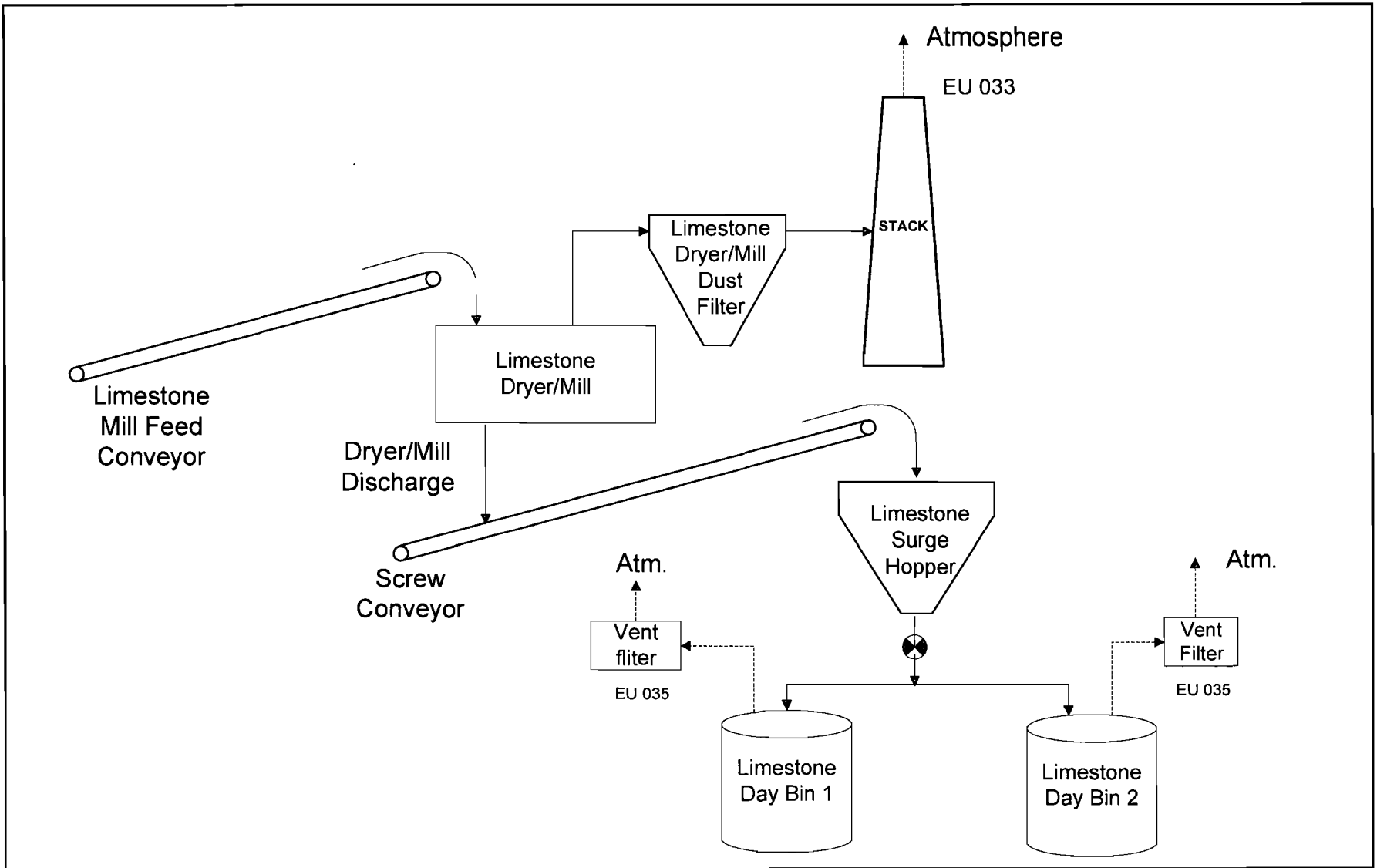




Attachment JEA-EU8-11e
 Process Flow Diagram
 Northside Generating Station Fly Ash Blower Discharge (EU 036),
 Fly Ash Silo Bin Vent (EU 037)

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



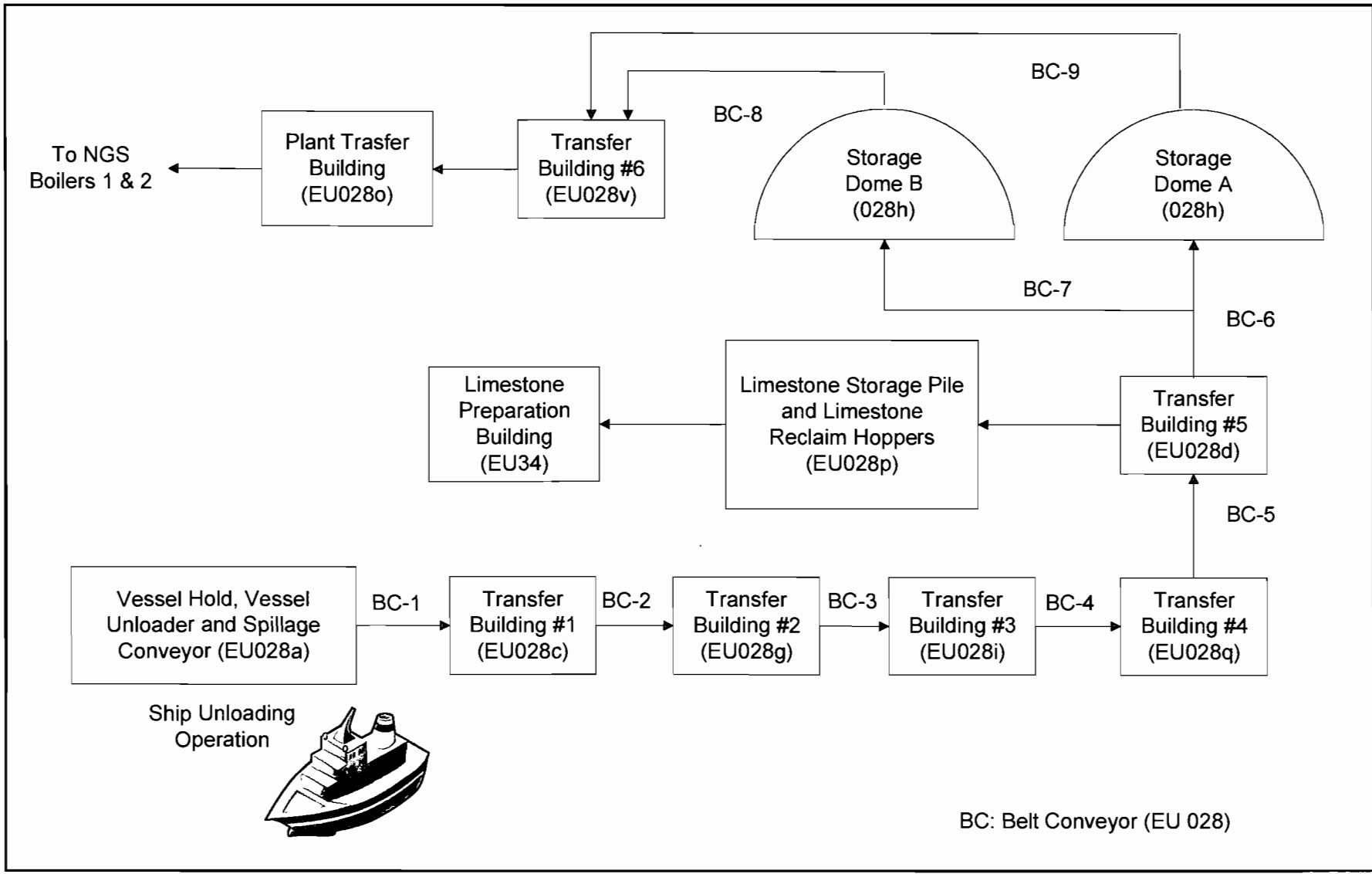


Attachment JEA-EU8-11f
 Process Flow Diagram
 Northside Generating Station Limestone Dryers/Mills Building (EU 033),
 Limestone Silo Bin Vent Filters (EU 035)

Process Flow Legend

Solid/Liquid ———→
 Gas - - - - ->





Attachment JEA-EU8-11g
 Process Flow Diagram
 Northside Generating Station: Materials Handling and Storage
 Operations (EU028)

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



ATTACHMENT JEA-EU8-I2
FUEL ANALYSIS

Date	BTU	CO2	N2	Grav	Methan	Ethane	Propan	Ibutan	Nbutan	Ipenta	Npenta	C6	Wobbe	CHDP
3/12/2013	1015	1.222	0.344	0.579	96.71	1.45	0.167	0.033	0.035	0.013	0.009	0.018	1335	-21
3/11/2013	1015	1.181	0.344	0.578	96.811	1.395	0.162	0.033	0.034	0.013	0.008	0.019	1335	-21
3/10/2013	1014	1.222	0.354	0.578	96.839	1.33	0.152	0.032	0.032	0.013	0.008	0.019	1334	-21
3/8/2013	1013	1.269	0.358	0.578	96.772	1.348	0.148	0.032	0.032	0.013	0.009	0.02	1332	-20
3/7/2013	1014	1.267	0.353	0.579	96.745	1.38	0.151	0.032	0.032	0.013	0.009	0.019	1333	-20
3/6/2013	1014	1.268	0.358	0.579	96.668	1.441	0.159	0.033	0.033	0.013	0.008	0.018	1333	-22
3/5/2013	1014	1.267	0.367	0.579	96.635	1.461	0.163	0.033	0.034	0.013	0.008	0.019	1333	-21
3/4/2013	1015	1.277	0.367	0.579	96.58	1.506	0.163	0.033	0.034	0.013	0.008	0.018	1333	-22
3/3/2013	1014	1.29	0.37	0.579	96.588	1.491	0.16	0.031	0.032	0.013	0.008	0.016	1332	-24
3/2/2013	1016	1.258	0.372	0.58	96.543	1.53	0.18	0.037	0.037	0.015	0.009	0.019	1334	-20
3/1/2013	1015	1.235	0.357	0.579	96.678	1.45	0.167	0.036	0.035	0.014	0.009	0.019	1334	-21
2/28/2013	1015	1.27	0.371	0.58	96.54	1.533	0.173	0.036	0.035	0.014	0.008	0.018	1333	-21
2/27/2013	1016	1.238	0.359	0.579	96.587	1.524	0.176	0.037	0.037	0.015	0.009	0.019	1334	-20
2/26/2013	1016	1.222	0.354	0.579	96.603	1.521	0.181	0.038	0.038	0.015	0.009	0.019	1335	-20
2/25/2013	1016	1.215	0.359	0.579	96.638	1.499	0.176	0.037	0.036	0.014	0.009	0.018	1335	-21
2/24/2013	1016	1.204	0.359	0.579	96.622	1.534	0.171	0.036	0.035	0.014	0.008	0.017	1335	-23
2/23/2013	1015	1.252	0.365	0.579	96.598	1.516	0.164	0.034	0.033	0.013	0.008	0.017	1334	-23
2/22/2013	1015	1.241	0.361	0.579	96.585	1.551	0.163	0.032	0.032	0.012	0.007	0.017	1334	-23
2/21/2013	1016	1.27	0.354	0.58	96.508	1.588	0.173	0.034	0.035	0.013	0.008	0.017	1334	-23
2/20/2013	1016	1.246	0.356	0.58	96.518	1.586	0.18	0.037	0.037	0.014	0.009	0.018	1334	-22
2/19/2013	1015	1.237	0.359	0.579	96.598	1.525	0.172	0.035	0.035	0.013	0.008	0.018	1334	-22
2/18/2013	1016	1.211	0.366	0.579	96.564	1.585	0.171	0.033	0.034	0.013	0.008	0.016	1335	-24
2/17/2013	1016	1.232	0.359	0.579	96.573	1.547	0.178	0.036	0.036	0.014	0.009	0.017	1335	-23
2/16/2013	1014	1.252	0.352	0.579	96.716	1.428	0.152	0.032	0.031	0.013	0.008	0.016	1333	-25
2/15/2013	1014	1.254	0.345	0.579	96.677	1.477	0.151	0.031	0.03	0.012	0.007	0.016	1333	-25
2/14/2013	1014	1.261	0.344	0.579	96.709	1.433	0.153	0.032	0.031	0.012	0.008	0.017	1333	-24
2/13/2013	1015	1.233	0.32	0.579	96.738	1.436	0.164	0.035	0.034	0.013	0.008	0.018	1335	-21
2/12/2013	1016	1.217	0.322	0.579	96.714	1.461	0.169	0.037	0.036	0.014	0.009	0.02	1335	-19
2/11/2013	1016	1.22	0.326	0.579	96.633	1.532	0.174	0.037	0.036	0.014	0.009	0.019	1335	-20
2/10/2013	1017	1.22	0.322	0.579	96.598	1.568	0.178	0.037	0.036	0.014	0.009	0.019	1336	-21
2/9/2013	1015	1.244	0.32	0.579	96.749	1.412	0.163	0.035	0.035	0.014	0.009	0.019	1334	-20
2/8/2013	1016	1.182	0.327	0.579	96.727	1.469	0.172	0.038	0.038	0.016	0.01	0.022	1336	-17
2/7/2013	1015	1.229	0.31	0.579	96.745	1.436	0.168	0.036	0.036	0.014	0.009	0.017	1335	-22
2/6/2013	1013	1.261	0.327	0.578	96.792	1.391	0.143	0.027	0.028	0.011	0.007	0.014	1333	-27
2/5/2013	1014	1.296	0.332	0.579	96.647	1.458	0.166	0.032	0.033	0.012	0.008	0.016	1333	-24
2/4/2013	1013	1.286	0.327	0.578	96.769	1.385	0.145	0.027	0.028	0.011	0.007	0.014	1332	-27
2/3/2013	1013	1.268	0.327	0.578	96.879	1.303	0.137	0.027	0.027	0.011	0.007	0.015	1332	-27
2/2/2013	1015	1.212	0.322	0.578	96.787	1.415	0.161	0.034	0.032	0.013	0.008	0.016	1335	-24
2/1/2013	1015	1.255	0.32	0.579	96.71	1.451	0.161	0.033	0.032	0.013	0.008	0.017	1334	-23
1/31/2013	1015	1.324	0.348	0.58	96.505	1.544	0.17	0.035	0.034	0.014	0.008	0.018	1332	-22
1/30/2013	1017	1.264	0.356	0.58	96.447	1.615	0.192	0.04	0.039	0.016	0.01	0.021	1334	-17
1/29/2013	1018	1.253	0.356	0.581	96.316	1.719	0.216	0.044	0.044	0.017	0.011	0.023	1336	-15
1/28/2013	1018	1.223	0.36	0.581	96.419	1.63	0.221	0.047	0.047	0.019	0.012	0.024	1336	-14
1/27/2013	1017	1.199	0.362	0.58	96.563	1.529	0.207	0.044	0.044	0.018	0.011	0.022	1336	-16
1/26/2013	1017	1.191	0.345	0.579	96.652	1.483	0.197	0.042	0.042	0.017	0.011	0.022	1336	-17
1/25/2013	1018	1.21	0.346	0.58	96.508	1.585	0.211	0.045	0.044	0.018	0.011	0.022	1336	-16
1/24/2013	1016	1.241	0.352	0.58	96.58	1.535	0.176	0.038	0.036	0.015	0.009	0.02	1334	-19
1/23/2013	1015	1.247	0.347	0.579	96.62	1.5	0.171	0.037	0.035	0.015	0.009	0.02	1334	-19
1/22/2013	1016	1.253	0.34	0.58	96.541	1.568	0.18	0.038	0.037	0.015	0.009	0.019	1335	-20

Florida Gas makes no warranty or representation whatsoever as to the accuracy of the information provided.

This information is provided on a best efforts basis and is an estimate.

Stream History

Gas Day	Brooker 24" Stream	
	Sulfur Avg ppm	Avg Grains/hcf
03/12/2013	1.566	0.098
03/11/2013	1.738	0.109
03/10/2013	1.744	0.109
03/09/2013	1.536	0.096
03/08/2013	1.450	0.091
03/07/2013	1.225	0.077
03/06/2013	1.026	0.064
03/05/2013	1.830	0.114
03/04/2013	1.632	0.102
03/03/2013	1.001	0.063
03/02/2013	0.909	0.057
03/01/2013	1.145	0.072
02/28/2013	1.511	0.094
02/27/2013	1.740	0.109
02/26/2013	2.107	0.132
02/25/2013	2.163	0.135
02/24/2013	2.326	0.145
02/23/2013	2.452	0.153
02/22/2013	2.365	0.148
02/21/2013	1.905	0.119
02/20/2013	1.593	0.100
02/19/2013	2.205	0.138
02/18/2013	1.239	0.077
02/17/2013	0.749	0.047
02/16/2013	0.883	0.055
02/15/2013	1.598	0.100
02/14/2013	0.924	0.058
02/13/2013	0.028	0.002
02/12/2013	0.305	0.019
02/11/2013	3.500	0.219
02/10/2013	2.444	0.153
02/09/2013	2.139	0.134
02/08/2013	2.529	0.158
02/07/2013	2.950	0.184
02/06/2013	2.552	0.159
02/05/2013	2.058	0.129
02/04/2013	1.778	0.111
02/03/2013	1.926	0.120
02/02/2013	1.904	0.119
02/01/2013	1.494	0.093
01/31/2013	1.419	0.089
01/30/2013	2.409	0.151
01/29/2013	2.583	0.161
01/28/2013	2.584	0.162
01/27/2013	3.174	0.198
01/26/2013	3.352	0.209
01/25/2013	3.384	0.212

Gas Day	Brooker 24" Stream	
	Sulfur Avg ppm	Avg Grains/hcf
01/24/2013	4.493	0.281
01/23/2013	2.906	0.182
01/22/2013	2.777	0.174
01/21/2013	3.607	0.225
01/20/2013	3.933	0.246
01/19/2013	3.452	0.216
01/18/2013	2.886	0.180
01/17/2013	2.941	0.184
01/16/2013	4.107	0.257
01/15/2013	4.244	0.265
01/14/2013	4.373	0.273
01/13/2013	4.471	0.279
01/12/2013	4.515	0.282
01/11/2013	4.542	0.284
01/10/2013	3.325	0.208
01/09/2013	0.024	0.002
01/08/2013	0.031	0.002
01/07/2013	2.631	0.164
01/06/2013	2.857	0.179
01/05/2013	2.983	0.186
01/04/2013	2.510	0.157
01/03/2013	2.744	0.172
01/02/2013	3.475	0.217
01/01/2013	3.460	0.216
12/31/2012	2.799	0.175
12/30/2012	2.143	0.134
12/29/2012	2.916	0.182
12/28/2012	2.879	0.180
12/27/2012	2.318	0.145
12/26/2012	2.895	0.181
12/25/2012	3.471	0.217
12/24/2012	3.022	0.189
12/23/2012	2.712	0.170
12/22/2012	2.426	0.152
12/21/2012	0.720	0.045
12/20/2012	1.100	0.069
12/19/2012	0.976	0.061
12/18/2012	1.012	0.063
12/17/2012	1.485	0.093
12/16/2012	1.570	0.098
12/15/2012	2.400	0.150
12/14/2012	1.468	0.092
12/13/2012	1.945	0.122
12/12/2012	1.891	0.118
12/11/2012	1.324	0.083
12/10/2012	1.276	0.080
12/09/2012	1.184	0.074
12/08/2012	0.957	0.060

JEA / JACKSONVILLE ELECTRIC AUTHORITY
 P.O. BOX 4910
 32201-4910 JACKSONVILLE FL
 United States



FAST TO THE POINT.
 SAYBOLT LP
 2610 S. Federal Hwy
 Ft Lauderdale, Florida
 33316
 Phone: (954)524-8772
 Fax: (954)524-2377
 E-mail: Saybolt.FtLauderdale@corelab.com
 Handled by: Armando Mejia

Report no. 13062/3128A.01.1/12
 Report date 02/Jan/2013
 Object JEA QUARTERLY INVENTORY
 Product #2 Diesel
 Location Jacksonville, FL, JEA Northside Plant
 Outturn Date 31/Dec/2012

CERTIFICATE OF ANALYSIS

Sample submitted as #2 Diesel
 Received Sampled by Saybolt Inspector
 Marked JEA Northside Plant - Tank# 12
 Date of sampling 31/Dec/2012
 Testing completed 10/Jan/2013 Time
 Sealed Open
 Lab number 1487

Test	Analyte	Unit	Method	Specification	Result	
					Prefix	Figure
API Gravity at 60°F	API Gravity	API	ASTM D 287	Report		35.4
Heat of Combustion	Heat of Combustion	BTU/Gal	ASTM D 240	Report		138159
Sulfur X-Ray	Sulfur total	m/m%	ASTM D 4294	Report		0.012
Ash	Ash	m/m%	ASTM D 482	Report		0.001
Nitrogen	Nitrogen	mg/kg	ASTM D 5762	Report		27
Bacterial Growth	Bacterial Growth	Count/ml	LiquidCult	Report		< 100
Fungal Growth	Fungal growth	Count/ml	LiquidCult	Report		< 10

Precision parameters apply in the evaluation of the test results specified above. Please also refer to ASTM D3244 (except for analysis of RFG), IP367 and appendix E of IP standard methods for analysis and testing with respect to the utilization of test data to determine conformance with specifications.

This report is issued in accordance with the General Terms and Conditions of Saybolt Jacksonville, FL and the recipient is deemed to have full knowledge thereof.

Remarks

Armando Mejia
 Armando Mejia

EMISSIONS UNIT INFORMATION

Section [9]

ST Fly Ash Processing System

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 [9]

ST Fly Ash Processing System

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:
Separations Technology (ST) Fly Ash Processing System consists of the following emissions units:

-044 Separator A Filter - Receiver Vent
-045 Separator B Filter - Receiver Vent
-046 Separator Dust Collector Vent
-047 Clean-up Vacuum Vent
-048 Fly Ash Surge Bin Vent
-049 Mineral Additive Storage Bin Vent
-050 Gas-Fired Dryer Stack

3. Emissions Unit Identification Number: **EUs 044, 045, 046, 047, 048, 049, and 050**

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

8. Federal Program Applicability: (Check all that apply)

- Acid Rain Unit
 CAIR Unit

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

10. Generator Nameplate Rating: _____ MW

11. Emissions Unit Comment:

ST fly ash processing system is used to remove the residual carbon and ammonia from the SJRPP fly ash and develop a saleable product.

The fly ash processing system includes two fly ash receiving bins, a carbon separation unit, a clean-up vacuum, a fly ash surge bin, a mineral additive storage bin, and a gas-fired dryer.

The two-step beneficiation process consists of (1) removal of the residual carbon from the fly ash using ST's patented electrostatic separation technology, and (2) removal of residual ammonia from the fly ash using ST's ammonia removal technology (patent pending). The carbon separation technology partitions fly ash into mineral-rich and carbon-rich fractions. The mineral-rich fly ash can then be sold as a usable product. The carbon-rich fly ash is returned to the JEA SJRPP fly ash storage silos for eventual disposal at the onsite landfill or transported offsite.

The particulate emissions generated from handling of the fly ash are collected from each source using pulse jet fabric filters.

EMISSIONS UNIT INFORMATION

Section [9]

ST Fly Ash Processing System

Emissions Unit Control Equipment/Method: Control 1 of 1

1. Control Equipment/Method Description: Fabric filter
2. Control Device or Method Code: 018

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

EMISSIONS UNIT INFORMATION

Section [9]

ST Fly Ash Processing System

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:		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: See Attachment JEA-EU9-C3.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet	
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: 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:			

EMISSIONS UNIT INFORMATION

Section [9]

ST Fly Ash Processing System

D. SEGMENT (PROCESS/FUEL) INFORMATION

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

1. Segment Description (Process/Fuel Type): Industrial Processes; Mineral Products; Construction Sand & Gravel; Material Transfer & Conveying		
2. Source Classification Code (SCC): 3-05-025-03	3. SCC Units: Tons handled	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 300,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Maximum annual rate based on maximum fly ash delivery rate of 300,00 ton/yr from JEA SJRPP.		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION

Section [9]
ST Fly Ash Processing System

POLLUTANT DETAIL INFORMATION

Page [1] of [1]
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 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.015 gr/dscf	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: Annual and renewal VE testing using EPA Method 9	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emission rate applies to EUs 044, 045, 046, 047, 048, and 049.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 1.6 lb/hr	4. Equivalent Allowable Emissions: 1.6 lb/hour 7 tons/year
5. Method of Compliance: Annual and renewal VE testing using EPA Method 9	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emission rate applies to EU050 (gas-fired dryer stack) Equivalent allowable annual emissions = 1.6 lb/hr x 8,760 hr/yr x ton/2,000 lb = 7 TPY	

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 [9]
 ST Fly Ash Processing System

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 1

1. Visible Emissions Subtype: VE05	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Permit No. 0310001-002-AC/PSD-FL-010(D).	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [9]

ST Fly Ash Processing System

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<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:	

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 [9]

ST Fly Ash Processing System

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: VE _____ <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [9]

ST Fly Ash Processing System

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 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 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 type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: <u>JEA-EU1-IV1</u>
2. Compliance Assurance Monitoring: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

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ATTACHMENT JEA-EU9-C3
DESCRIPTIONS OF EMISSION POINTS

ATTACHMENT JEA-EU9-C3 EMISSION POINT INFORMATION

The ST fly ash processing system includes two fly ash receiving bins, a carbon separation unit, a clean-up vacuum, a fly ash surge bin, a mineral additive storage bin, and a gas-fired dryer. The following emissions points are associated with this equipment:

1. Separator A Filter – Receiver Vent
2. Separator B Filter – Receiver Vent
3. Separator Dust Collector Vent
4. Clean-up Vacuum Vent
5. Fly Ash Surge Bin Vent
6. Mineral Additive Storage Bin Vent
7. Gas-Fired Dryer Stack

The emissions point details are presented below:

Emissions Units	EU044	EU045	EU046	EU047	EU048	EU049	EU050
Discharge Type Code	H	H	H	H	H	H	V
Stack Height (ft)	47.83	47.83	31.08	5	75.04	74.67	88.5
Exit Diameter (ft)	14	14	12 x 10	4	8.16	32	32
Exhaust Temp. (F)	100	100	100	100	100	100	220
Actual Volumetric Flow Rate (acfm)	1,796	1,480	4,226	423	4,121	423	28,240
Max. Dry Std. Flow Rate (dscfm)	1,700	1,400	4,000	400	3,900	400	22,000

H = Horizontal
V = Vertical