

# JEA NORTHSIDE GENERATING STATION



## Title V Modification Application

August 2002



21 West Church Street  
Jacksonville, Florida 32202-3139

August 7, 2002



Mr. Scott Sheplak, P.E.  
Administrator  
Bureau of Air Regulation  
Division of Air Resources Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

ELECTRIC

WATER

SEWER

RE: Northside Generating Station  
Title V Permit No. 0310045-008-AV  
Request for Permit Revision

RECEIVED

AUG 09 2002

BUREAU OF AIR REGULATION

Dear Mr. Sheplak:

Enclosed please find an original and four (4) copies of the Title V permit revision application to incorporate the circulating fluidized bed boilers (CFBs) Units 1 and 2 into the Northside Generating Station Title V permit.

We are including information related to Unit 1 even though stack testing has not yet been completed rather than submitting a separate permit revision application for this unit. Stack test results will be provided to the Department as soon the information becomes available.

If you have any questions regarding this submittal, please call me at (904) 665-6247.

Sincerely,

A handwritten signature in black ink, appearing to read 'N. Bert Gianazza', is written over a faint, illegible typed name.

N. Bert Gianazza, P.E.  
Environmental Assessments  
& Permitting

Enclosures

cc: Steve Pace, P.E., RESD  
Chris Kirts, P.E., DEP-NED



# Department of Environmental Protection

## Division of Air Resources Management

RECEIVED

AUG 09 2002

### APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

BUREAU OF AIR REGULATION

#### I. APPLICATION INFORMATION

##### Identification of Facility

1. Facility Owner/Company Name: JEA	
2. Site Name: Northside Generating Station/St. John's River Power Park	
3. Facility Identification Number: 0310045 [ ] Unknown	
4. Facility Location: Street Address or Other Locator: 4377 Heckscher Drive City: Jacksonville County: Duval Zip Code: 32226	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

##### Application Contact

1. Name and Title of Application Contact: Bert Gianazza - Environmental Health & Safety Group	
2. Application Contact Mailing Address: Organization/Firm: JEA Street Address: 21 West Church Street City: Jacksonville State: Florida Zip Code: 32202	
3. Application Contact Telephone Numbers: Telephone: (904)665-6247 Fax: (904)665-7376	

##### Application Processing Information (DEP Use)

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

**Purpose of Application**

**Air Operation Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: \_\_\_\_\_

- Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: PSD-FL-265 and PSD-FL-265A \_\_\_\_\_

Operation permit number to be revised: 0310045-003-AV \_\_\_\_\_

- Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected: \_\_\_\_\_

- Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised: \_\_\_\_\_

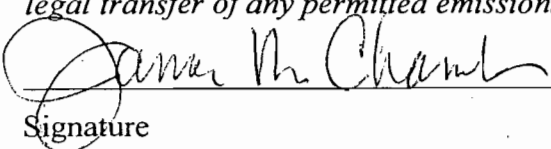
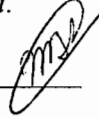
Reason for revision: \_\_\_\_\_

**Air Construction Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- Air construction permit to construct or modify one or more emissions units.
- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- Air construction permit for one or more existing, but unpermitted, emissions units.

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: James M. Chansler, P.E., D.P.A. Vice President, Operations and Maintenance
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: JEA Street Address: 21 West Church Street City: Jacksonville State: Florida Zip Code: 32202
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (904 ) 665 - 4433 Fax: (904 ) 665 - 7990
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [ X ], if so) of the Title V source addressed in this application, whichever is applicable. 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. 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 any permitted emissions unit.</i>  Signature  Date 8/5/02

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: Bert Gianazza Registration Number: 38640
2. Professional Engineer Mailing Address: Organization/Firm: JEA Tower 9 Street Address: 21 W Church St City: Jacksonville State: FL Zip Code: 32202
3. Professional Engineer Telephone Numbers: Telephone: (904 ) 665 - 6247 Fax: (904 ) 665 - 7376

4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*


*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

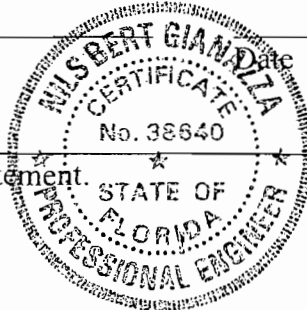
*If the purpose of this application is to obtain a Title V source air operation permit (check here [  ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [  ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [  ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature 

(seal)



8/5/02

\* Attach any exception to certification statement.

**Scope of Application**

<b>Emissions Unit ID</b>	<b>Description of Emissions Unit</b>	<b>Permit Type</b>	<b>Processing Fee</b>
026	NGS – Circulating Fluidized Bed Boiler No. 2	NA	NA
027	NGS – Circulating Fluidized Bed Boiler No. 1	NA	NA
028	NGS – Materials Handling & Storage Operations	NA	NA
029	NGS – Crusher Building Baghouse Exhaust (DC1)	NA	NA
031	NGS – Fuel Silo Dust Collectors (DC2 and DC3)	NA	NA
033	NGS – Limestone Dryer/Mills	NA	NA
034	NGS – Limestone Prep Building Dust Collectors	NA	NA
035	NGS – Limestone Silo Bin Vent Filters	NA	NA
036	NGS – Fly Ash Transport Blower Discharge	NA	NA
037	NGS – Fly Ash Silo Bin Vents	NA	NA
038	NGS – Bed Ash Silo Bin Vents	NA	NA
042	NGS – AQCS Pebble Lime Silo Bin Vent	NA	NA
051	NGS – Fly Ash Slurry Mix System Vent	NA	NA
052	NGS – Bed Ash Slurry Mix System Vent	NA	NA
053	NGS – Bed Ash Surge Hopper Bin Vents	NA	NA
054	NGS – Limestone Feed System Vent Filter Exhaust	NA	NA

**Application Processing Fee**

Check one: [  ] Attached - Amount: \$ \_\_\_\_\_ [ X ] Not Applicable

## Construction/Modification Information

### 1. Description of Proposed Project or Alterations:

This application for revision to the Title V permit is associated with construction conducted under construction permit PSD-FL-265 and the application for construction permit PSD-265. Revisions to construction permit PSD-FL-265 are included in construction permit PSD-FL-265A. For the material handling and storage operations covered under emissions unit 028, the base case scenario rather than the Alternative #1 scenario, as presented in the construction permit application was used. Therefore, emission units identified with the Alternate 1 scenario are not included in this application. The as-built facility differs from the construction permit application as follows:

- Conveyors D-10, D-11, D-12, D-13 and D-14 and new transfer towers #1A, 2A, 3A and 4A (all included as part of EU028g) were not constructed and are not included in this application.
- Two enclosed coal/pet coke storage structures (EU028h), instead of one, were installed. Because permit PSD-FL-265 limits the annual coal/pet coke handling and usage rate, this change will not affect emission estimates.
- Loading to the limestone storage pile (EU028d) is by telescopic chute rather than with a lowering well.
- Emission points for new coal/pet coke and limestone unloading and handling operations at St. John's River Power Park (SJRPP) facility (EU028b, EU043, EU044 and EU045) included in the application for permit PSD-FL-265 base case scenario were not constructed and are not included in this application.
- The application for permit PSD-FL-265 gave alternative emission control strategies for the CFB boilers (EU026 and EU027). The control strategy used is a lime slurry spray dryer absorber followed by a baghouse (discussed in Section III of this application).
- Dust collectors were installed on the limestone feed system. These are given a proposed emission unit designation of 054 in this application.
- JEA requests that the naming of some of the emission units be changed to match the nomenclature being used by the Facility. Any such requests are called out in Section III for the respective emission units.

2. Projected or Actual Date of Commencement of Construction:

3. Projected Date of Completion of Construction: December 2002



**Application Comment**

This application is for a revision to the facility's Title V operating permit to include Circulating Fluidized Bed (CFB) Boiler No. 2, CFB Boiler No. 1 and ancillary equipment. CFB Boiler No. 2 (EU026) was constructed by repowering old Boiler No. 2 (EU002) and CFB Boiler No. 1 (EU027) was constructed by repowering old Boiler No.1 (EU001). Emissions unit identification numbers EU002 and EU001, which are used to track baseline data for old NGS Boiler No. 2 and Boiler No. 1, respectively, are no longer active point numbers. Ancillary equipment includes coal, pet coke, limestone, lime, bed ash and fly ash handling, processing and storage equipment.



**Facility Regulatory Classifications**

**Check all that apply:**

1. <input type="checkbox"/> Small Business Stationary Source?	<input type="checkbox"/> Unknown
2. <input checked="" type="checkbox"/> Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. <input type="checkbox"/> Synthetic Minor Source of Pollutants Other than HAPs?	
4. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)?	
5. <input type="checkbox"/> Synthetic Minor Source of HAPs?	
6. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS?	
7. <input type="checkbox"/> One or More Emission Units Subject to NESHAP?	
8. <input checked="" type="checkbox"/> Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters):	

**List of Applicable Regulations**

<b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b>	
<b>Facility-wide applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b>	

## B. FACILITY POLLUTANTS

### List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		
CO	A				
NOX	A		3,600	Construction Permit No. PSD-FL-265A	Annual emissions cap is for Units 1, 2, and 3 combined
PM	A		881	Construction Permit No. PSD-FL-265A	Annual emissions cap is for stack emissions from Units 1, 2, and 3 combined.
PM10	A				
SO2	A		12,284	Construction Permit No. PSD-FL-265A	Annual emissions cap is for Units 1, 2, and 3 combined
VOC	A				
PB	B				
H114	B				
SAM	B				
H107	B				
H106	A				
HAPS	A				



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

8. List of Proposed Insignificant Activities: <input checked="" type="checkbox"/> Attached, Document ID: Attachment F <input type="checkbox"/> Not Applicable
9. List of Equipment/Activities Regulated under Title VI: <input checked="" type="checkbox"/> Attached, Document ID: Attachment G <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input type="checkbox"/> Not Applicable
10. Alternative Methods of Operation: <input checked="" type="checkbox"/> Attached, Document ID: Attachment H <input type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: Attachment I <input type="checkbox"/> Not Applicable
13. Risk Management Plan Verification: <input checked="" type="checkbox"/> Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: Attachment J) or previously submitted to DEP (Date and DEP Office: _____) <input type="checkbox"/> Plan to be submitted to CEPPO (Date required: _____) <input type="checkbox"/> Not Applicable
14. Compliance Report and Plan: <input checked="" type="checkbox"/> Attached, Document ID: Attachment K <input type="checkbox"/> Not Applicable
15. Compliance Certification (Hard-copy Required): <input checked="" type="checkbox"/> Attached, Document ID: Attachment L <input type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input checked="" type="checkbox"/> 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).</p> <p><input type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): NGS – Circulating Fluidized Bed Boiler No. 2</p>			
<p>4. Emissions Unit Identification Number: <span style="float: right;"><input type="checkbox"/> No ID</span> ID: 026 <span style="float: right;"><input type="checkbox"/> ID Unknown</span></p>			
<p>5. Emissions Unit Status Code: A</p>	<p>6. Initial Startup Date: Feb. 11, 2002</p>	<p>7. Emissions Unit Major Group SIC Code: 49</p>	<p>8. Acid Rain Unit? <input checked="" type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters) Old NGS Boiler No. 2 (EU002) was repowered in construction of NGS Circulating Fluidized Bed Boiler No. 2. Emissions unit identification number EU002, which is used to track baseline data for old NGS Boiler No. 2, is no longer an active emission point number.</p>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Initial sulfur dioxide (SO<sub>2</sub>) control is achieved through limestone injection into the circulating fluidized bed (CFB) boiler. The limestone will calcine to form lime (CaO) which reacts with the SO<sub>2</sub> in the combustion gas to form calcium sulfite (CaSO<sub>3</sub>) or calcium sulfate (CaSO<sub>4</sub>). Further SO<sub>2</sub> control is achieved using an add-on lime slurry spray dryer absorber, where calcium in the lime slurry will react with SO<sub>2</sub> remaining in the flue gas.

Particulate matter (PM) consisting of flyash, the SO<sub>2</sub> control reaction products and unreacted lime is controlled using a fabric filter dust collector downstream of the spray dryer. Selective non catalytic reduction (SNCR) is used to reduce oxides of nitrogen (NO<sub>x</sub>) emissions by reacting ammonia with NO<sub>x</sub> to form molecular nitrogen and water.

2. Control Device or Method Code(s): 041, 013, 018, and 107

**Emissions Unit Details**

1. Package Unit:		
Manufacturer:		Model Number:
2. Generator Nameplate Rating: 297.5		MW
3. Incinerator Information: Not applicable		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F



**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate: 2,764	mmBtu/hr
2. Maximum Incineration Rate:                      lb/hr	tons/day
3. Maximum Process or Throughput Rate:	
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU026		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: While NGS – Circulating Fluidized Bed Boiler No. 2 (EU026) shares a common stack with NGS – Circulating Fluidized Bed Boiler No. 1 (EU027), 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: 15.0 feet	
8. Exit Temperature: 144°F (approx)	9. Actual Volumetric Flow Rate: 700,300 (approx) acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 446.670                      North (km): 3,365.070			
14. Emission Point Comment (limit to 200 characters): Fields 10 and 11 were not completed because this emissions unit is not subject to a grain loading standard. NGS – Circulating Fluidized Bed Boiler No. 2 (EU026) shares a common stack with NGS – Circulating Fluidized Bed Boiler No. 1 (EU027). The common stack contains two separate flues, one for each CFB boiler.			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment  1  of  5

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Coal used in Circulating Fluidized Bed Boiler No. 2		
2. Source Classification Code (SCC): 10100218	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 138.20 (approx)	5. Maximum Annual Rate: 1,210,632 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 8	8. Maximum % Ash:	9. Million Btu per SCC Unit: 20 (approx)
10. Segment Comment (limit to 200 characters):		

**Segment Description and Rate:** Segment  2  of  5

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): Petroleum coke used in Circulating Fluidized Bed Boiler No. 2		
2. Source Classification Code (SCC): 10100299	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 101.9 (approx)	5. Maximum Annual Rate: 892,644 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 8.00	8. Maximum % Ash:	9. Million Btu per SCC Unit: 27.12 (approx)
10. Segment Comment (limit to 200 characters): SCC number 10100218 is for external combustion boilers – electric generation – bituminous/subbituminous coal – atmospheric fluidized bed combustion: circulating bed (bituminous coal). SCC number 10100299 is used because a SCC number for combustion of petroleum coke was not found.		

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment  3  of  5

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Coal and Petroleum coke blend used in Circulating Fluidized Bed Boiler No. 2		
2. Source Classification Code (SCC): 10100299		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 138.20 (approx)	5. Maximum Annual Rate: 1,210,632 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 8	8. Maximum % Ash:	9. Million Btu per SCC Unit: 20 (approx)
10. Segment Comment (limit to 200 characters):		

**Segment Description and Rate:** Segment  4  of  5

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Natural gas including landfill gas used in Circulating Fluidized Bed Boiler No. 2 (for startup only).		
2. Source Classification Code (SCC): 10100299		3. SCC Units: Million cubic feet burned
4. Maximum Hourly Rate: 0.31 (approx)	5. Maximum Annual Rate: 15.60 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 2 gr/100scf	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1,000 (approx)
10. Segment Comment (limit to 200 characters): Natural gas is to be used for startup only.		

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(All Emissions Units)**

**Segment Description and Rate:** Segment  5  of  5

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): Distillate oil used in Circulating Fluidized Bed Boiler No. 2		
2. Source Classification Code (SCC): 10100299		3. SCC Units: Thousand gallons burned
4. Maximum Hourly Rate: 2.26 (approx)	5. Maximum Annual Rate: 113 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.05 (approx)	8. Maximum % Ash:	9. Million Btu per SCC Unit: 140 (approx)
10. Segment Comment (limit to 200 characters): Distillate oil is to be used for startup only.		

**F. EMISSIONS UNIT POLLUTANTS  
(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>CO</b>			<b>EL</b>
<b>NO<sub>x</sub></b>	<b>107</b>		<b>EL</b>
<b>PM</b>	<b>018</b>		<b>EL</b>
<b>PM<sub>10</sub></b>	<b>018</b>		<b>EL</b>
<b>SO<sub>2</sub></b>	<b>041</b>	<b>013</b>	<b>EL</b>
<b>VOC</b>			<b>EL</b>
<b>H114</b>	<b>013</b>	<b>018</b>	<b>EL</b>
<b>PB</b>	<b>018</b>		<b>EL</b>
<b>SAM</b>	<b>041</b>	<b>013</b>	<b>EL</b>
<b>H107</b>	<b>013</b>		<b>EL</b>
<b>H106</b>	<b>013</b>		<b>NS</b>
<b>HAPS</b>			<b>NS</b>

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 350 lb/hour		4. Synthetically Limited? [ ] 1,533 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 350 lb/hr Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The CO emissions limit of 350 lb/hour on a 24-hour average (excluding startup and shutdown) is set by construction permit PSD-FL-265. The CO emissions limit of 1,533 tons/year is set by construction permit PSD-FL-265.			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  2

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 350 lb/hr (24-hour block average)		4. Equivalent Allowable Emissions: 350 lb/hour 1,533 tons/year	
5. Method of Compliance (limit to 60 characters): Compliance with the CO emission limits will be demonstrated using CEMS.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The CO emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			



Emissions Unit Information Section  1  of  16

Pollutant Detail Information Page  2  of  13

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Allowable Emissions** Allowable Emissions  2  of  2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 1,533 tons per year	4. Equivalent Allowable Emissions: lb/hour          1,533 tons/year
5. Method of Compliance (limit to 60 characters): Compliance with the annual CO emissions limit will be demonstrated by summing the hourly CO emission rate data from the CEMS.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The CO emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: NO <sub>x</sub>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 249 lb/hour		4. Synthetically Limited? [ ] 1,090 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.09 lb/mmBtu Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The NO <sub>x</sub> Emissions limit of 0.09 lb/mmBtu is set by construction permit PSD-FL-265. The heat input rate to EU026 is 2,764 mmBtu/hr. Hourly NO <sub>x</sub> emissions rate = (0.09 lb/mmBtu)(2,764 mmBtu/hr) = 249 lb/hr Annual NO <sub>x</sub> emissions rate = (0.09 lb/mmBtu)(2,764 mmBtu/hr)(8,760 hr/yr)(ton/2,000 lb) = = 1,090 ton/yr			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.09 lb/mmBtu on a 30-day rolling average		4. Equivalent Allowable Emissions: 249 lb/hour 1,090 tons/year	
5. Method of Compliance (limit to 60 characters): Compliance with the NO <sub>x</sub> emission limit will be demonstrated using CEMs.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The NO <sub>x</sub> emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265. The NO <sub>x</sub> emissions limit is on a 30-day rolling average basis.			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 30 lb/hour		4. Synthetically Limited? [ ] 133 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.011 lb/mmBtu Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The PM Emissions limit of 0.011 lb/mmBtu is set by construction permit PSD-FL-265. The heat input rate to EU026 is 2,764 mmBtu/hr. Hourly PM emissions rate = (0.011 lb/mmBtu)(2,764 mmBtu/hr) = 30 lb/hr Annual PM emissions rate = (0.011 lb/mmBtu)(2,764 mmBtu/hr)(8,760 hr/yr)(ton/2,000 lb) = = 133 ton/yr			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.011 lb/mmBtu based on a 3-hour average		4. Equivalent Allowable Emissions: 30 lb/hour 133 tons/year	
5. Method of Compliance (limit to 60 characters): Using appropriate EPA Methods, initial compliance tests while firing coal and while firing petroleum coke were conducted. Compliance testing while firing petroleum coke will be conducted quarterly for the first two years of operation and then annually thereafter.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The PM emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PM <sub>10</sub>	2. Total Percent Efficiency of Control:
3. Potential Emissions: 30 lb/hour	4. Synthetically Limited? [ ] 133 tons/year
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: 0.011 lb/mmBtu Reference: Construction permit PSD-FL-265	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters): The PM <sub>10</sub> Emissions limit of 0.011 lb/mmBtu is set by construction permit PSD-FL-265. The heat input rate to EU026 is 2,764 mmBtu/hr. Hourly PM <sub>10</sub> emissions rate = (0.011 lb/mmBtu)(2,764 mmBtu/hr) = 30 lb/hr Annual PM <sub>10</sub> emissions rate = (0.011 lb/mmBtu)(2,764 mmBtu/hr)(8,760 hr/yr)(ton/2,000 lb) = 133 ton/yr	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

**Allowable Emissions** Allowable Emissions   1   of   1  

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.011 lb/mmBtu based on a 3-hour average	4. Equivalent Allowable Emissions: 30 lb/hour                      133 tons/year
5. Method of Compliance (limit to 60 characters): Using appropriate EPA Methods, initial compliance tests while firing coal and while firing petroleum coke were conducted. Compliance testing while firing petroleum coke will be conducted annually thereafter.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The PM <sub>10</sub> emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: SO <sub>2</sub>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 553 lb/hour		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.20 lb/mmBtu and 0.15 lb/mmBtu Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The SO <sub>2</sub> Emissions limits of 0.20 lb/mmBtu (24-hour block average) and 0.15 lb/mmBtu (30-day rolling average) are set by construction permit PSD-FL-265. The heat input rate to EU026 is 2,764 mmBtu/hr. Hourly SO <sub>2</sub> emissions rate (24-hour average) = (0.20 lb/mmBtu)(2,764 mmBtu/hr) = 553 lb/hr Hourly SO <sub>2</sub> emissions rate (30-day average) = (0.15 lb/mmBtu)(2,764 mmBtu/hr) = 415 lb/hr Annual SO <sub>2</sub> emissions rate = (0.15 lb/mmBtu)(2,764 mmBtu/hr)(8,760 hr/yr)(ton/2,000 lb) = 1,816 ton/yr			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  2

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.20 lb/mmBtu (24-hour block average)		4. Equivalent Allowable Emissions: 553 lb/hour tons/year	
5. Method of Compliance (limit to 60 characters): Compliance with the SO <sub>2</sub> emission limit will be demonstrated using CEMs.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The SO <sub>2</sub> emissions limits along with compliance determination requirements are included in construction permit PSD-FL-265.			

**Emissions Unit Information Section**   1   of   16  

**Pollutant Detail Information Page**   7   of   13  

**Allowable Emissions** Allowable Emissions   2   of   2  

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.15 lb/mmBtu (30-day rolling average)	4. Equivalent Allowable Emissions: 415 lb/hour      1,816 tons/year
5. Method of Compliance (limit to 60 characters): Compliance with the SO <sub>2</sub> emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The SO <sub>2</sub> emissions limits along with compliance determination requirements are included in construction permit PSD-FL-265.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 14 lb/hour		4. Synthetically Limited? [ ] 61.5 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 14 lb/hour and 61.5 tons/year Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The VOC emissions limit of 14 lb/hour is set by construction permit PSD-FL-265. The VOC emissions limit of 61.5 tons/year is set by construction permit PSD-FL-265.			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  2

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 14 lb/hr (3-hour average)		4. Equivalent Allowable Emissions: 14 lb/hour 61.5 tons/year	
5. Method of Compliance (limit to 60 characters): Using appropriate EPA Methods, initial compliance tests while firing coal and while firing petroleum coke were conducted. Compliance testing will be conducted once within every five years thereafter while firing petroleum coke or coal.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The VOC emissions limits along with compliance determination requirements are included in construction permit PSD-FL-265.			

**Allowable Emissions** Allowable Emissions  2  of  2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 61.5 tons per year	4. Equivalent Allowable Emissions: lb/hour          61.5 tons/year
5. Method of Compliance (limit to 60 characters): Compliance with the annual limit is demonstrated by demonstrating compliance with the short-term emissions limit.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The VOC emissions limits along with compliance determination requirements are included in construction permit PSD-FL-265.	



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: H114		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.03 lb/hour		4. Synthetically Limited? [ ] 0.13 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.03 lb/hour Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The mercury emissions limit of 0.03 lb/hour is set by construction permit PSD-FL-265. Annual mercury emissions rate = (0.03 lb/hr)(8,760 hr/yr)(ton/2,000 lb) = 0.13 tons/year			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.03 lb/hour (6-hour average)		4. Equivalent Allowable Emissions: 0.03 lb/hour 0.13 tons/year	
5. Method of Compliance (limit to 60 characters): Using appropriate EPA Methods, initial compliance tests while firing coal and while firing petroleum coke were conducted.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The mercury emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PB		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.07 lb/hour		4. Synthetically Limited? [ ] 0.31 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.07 lb/hour Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The lead emissions limit of 0.07 lb/hour is set by construction permit PSD-FL-265. Annual lead emissions rate = (0.07 lb/hr)(8,760 hr/yr)(ton/2,000 lb) = 0.31 tons/year			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.07 lb/hr (3-hour average)		4. Equivalent Allowable Emissions: 0.07 lb/hour 0.31 tons/year	
5. Method of Compliance (limit to 60 characters): Using appropriate EPA Methods, initial compliance tests while firing coal and while firing petroleum coke were conducted.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The lead emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: SAM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 1.1 lb/hour		4. Synthetically Limited? [ ] 4.82 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 1.1 lb/hour Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The sulfuric acid mist emissions limit of 1.1 lb/hour is set by construction permit PSD-FL-265. Annual sulfuric acid mist emissions rate = (1.1 lb/hr)(8,760 hr/yr)(ton/2,000 lb) = 4.82 tons/year			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 1.1 lbs/hour (3-hour average)		4. Equivalent Allowable Emissions: 1.1 lb/hour 4.82 tons/year	
5. Method of Compliance (limit to 60 characters): Using appropriate EPA Methods, initial compliance tests while firing coal and while firing petroleum coke were conducted.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The sulfuric acid mist emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: H107		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.43 lb/hour		4. Synthetically Limited? [ ] 1.88 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.43 lb/hour Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The hydrogen fluoride emissions limit of 0.43 lb/hr is set by construction permit PSD-FL-265. Annual hydrogen fluoride emissions rate = (0.43 lb/hr)(8,760 hr/yr)(ton/2,000 lb) = 1.88 tons/year			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.43 lb/hour (3-hour average)		4. Equivalent Allowable Emissions: 0.43 lb/hour 1.88 tons/year	
5. Method of Compliance (limit to 60 characters): Using appropriate EPA Methods, initial compliance tests while firing coal and while firing petroleum coke were conducted.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The hydrogen fluoride emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

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

1. Visible Emissions Subtype: V10	2. Basis for Allowable Opacity: [ ] Rule [ X ] Other
3. Requested Allowable Opacity: Normal Conditions: 10 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Compliance with the visible emissions limit will be demonstrated using a continuous opacity monitor (COM).	
5. Visible Emissions Comment (limit to 200 characters): The visible emissions limit is based on a 6-minute block average and is based on excluding periods of startup, shutdown and malfunction. The visible emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  1  of  5

1. Parameter Code: VE	2. Pollutant(s):
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: KVB/MIP Model Number: LM3086EPA3 Serial Number: 730217	
5. Installation Date:	6. Performance Specification Test Date: June 10, 2002
7. Continuous Monitor Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  2  of  5

1. Parameter Code: EM	2. Pollutant(s): CO
3. CMS Requirement:	[ ] Rule [ X ] Other
4. Monitor Information: Manufacturer: TECO Model Number: 48C Serial Number: 48C-70175-365	
5. Installation Date:	6. Performance Specification Test Date: June 10, 2002
7. Continuous Monitor Comment (limit to 200 characters): Use of CEMs required by construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  3  of  5

1. Parameter Code: EM	2. Pollutant(s): NOX
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: TECO Model Number: 42C Serial Number: 42C-69028-362	
5. Installation Date:	6. Performance Specification Test Date: June 10, 2002
7. Continuous Monitor Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  4  of  5

1. Parameter Code: EM	2. Pollutant(s): SO2
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: TECO Model Number: 43C Serial Number: 43C-69843-364	
5. Installation Date:	6. Performance Specification Test Date: June 10, 2002
7. Continuous Monitor Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  5  of  5

1. Parameter Code: CO2	2. Pollutant(s):
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: CAI Model Number: ZRH Serial Number: AOXO603T	
5. Installation Date:	6. Performance Specification Test Date: June 10, 2002
7. Continuous Monitor Comment (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
**(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID:Attachment C <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input checked="" type="checkbox"/> Attached, Document ID:Attachment M <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID:Attachment N <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input checked="" type="checkbox"/> Attached, Document ID:Attachment O <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input checked="" type="checkbox"/> Attached, Document ID:Attachment P <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input checked="" type="checkbox"/> Attached, Document ID:Attachment Q <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input checked="" type="checkbox"/> Attached, Document ID:Attachment R <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:          



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

11. Alternative Methods of Operation [ X ] Attached, Document ID: Attachment H [ ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ X ] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ X ] Not Applicable
14. Compliance Assurance Monitoring Plan [ X ] Attached, Document ID: Attachment S [ ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) Attachment T [ ] Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ [ ] Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one) <input checked="" type="checkbox"/> 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). <input type="checkbox"/> 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. <input type="checkbox"/> 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. Regulated or Unregulated Emissions Unit? (Check one) <input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit. <input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): NGS – Circulating Fluidized Bed Boiler No. 1			
4. Emissions Unit Identification Number: ID: 027 <span style="float: right;"> <input type="checkbox"/> No ID  <input type="checkbox"/> ID Unknown                 </span>			
5. Emissions Unit Status Code: A	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input checked="" type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters) Old NGS Boiler No. 1 (EU001) was repowered in construction of NGS Circulating Fluidized Bed Boiler No. 1. Emissions unit identification number EU001, which is used to track baseline data for old NGS Boiler No. 1, is no longer an active emission point number.			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Initial sulfur dioxide (SO<sub>2</sub>) control is achieved through limestone injection into the circulating fluidized bed (CFB) boiler. The limestone will calcine to form lime (CaO) which reacts with the SO<sub>2</sub> in the combustion gas to form calcium sulfite (CaSO<sub>3</sub>) or calcium sulfate (CaSO<sub>4</sub>). Further SO<sub>2</sub> control is achieved using an add-on lime slurry spray dryer, where calcium in the lime slurry will react with SO<sub>2</sub> remaining in the flue gas. Particulate matter (PM) consisting of flyash, the SO<sub>2</sub> control reaction products and unreacted lime is controlled using a fabric filter dust collector downstream of the spray dryer. Selective non catalytic reduction (SNCR) is used to reduce oxides of nitrogen (NO<sub>x</sub>) emissions by reacting ammonia with NO<sub>x</sub> to form molecular nitrogen and water.

2. Control Device or Method Code(s): 041, 013, 018, and 107

**Emissions Unit Details**

1. Package Unit: Manufacturer:	Model Number:
2. Generator Nameplate Rating: 297.5	MW
3. Incinerator Information: Not applicable	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate: 2,764	mmBtu/hr
2. Maximum Incineration Rate:                      lb/hr	tons/day
3. Maximum Process or Throughput Rate:	
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	



**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU027		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: While NGS – Circulating Fluidized Bed Boiler No. 2 (EU026) shares a common stack with NGS – Circulating Fluidized Bed Boiler No. 1 (EU027), 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: 15.0 feet	
8. Exit Temperature: 144°F (approx)	9. Actual Volumetric Flow Rate: 700,300 (approx) acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 446.670                      North (km): 3365.070			
14. Emission Point Comment (limit to 200 characters): Completion of fields 10 and 11 is not required because this emission unit is not subject to a grain loading standard. NGS – Circulating Fluidized Bed Boiler No. 2 (EU026) shares a common stack with NGS – Circulating Fluidized Bed Boiler No. 1 (EU027). The common stack contains two separate flues, one for each CFB boiler.			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment  1  of  5

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Coal used in Circulating Fluidized Bed Boiler No. 1		
2. Source Classification Code (SCC): 10100218	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 138.20 (approx)	5. Maximum Annual Rate: 1,210,632 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 8	8. Maximum % Ash:	9. Million Btu per SCC Unit: 20 (approx)
10. Segment Comment (limit to 200 characters):		

**Segment Description and Rate:** Segment  2  of  5

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): Petroleum coke used in Circulating Fluidized Bed Boiler No. 1		
2. Source Classification Code (SCC): 10100299	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 101.9 (approx)	5. Maximum Annual Rate: 892,644 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 8.00	8. Maximum % Ash:	9. Million Btu per SCC Unit: 27.12 (approx)
10. Segment Comment (limit to 200 characters): SCC number 10100218 is for external combustion boilers – electric generation – bituminous/subbituminous coal – atmospheric fluidized bed combustion: circulating bed (bituminous coal). SCC number 10100299 is used because a SCC number for combustion of petroleum coke was not found.		

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(All Emissions Units)**

**Segment Description and Rate:** Segment  3  of  5

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): Coal and Petroleum coke blend used in Circulating Fluidized Bed Boiler No. 1		
2. Source Classification Code (SCC): 10100299		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 138.20 (approx)	5. Maximum Annual Rate: 1,210,632 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 8	8. Maximum % Ash:	9. Million Btu per SCC Unit: 20 (approx)
10. Segment Comment (limit to 200 characters):		

**Segment Description and Rate:** Segment  4  of  5

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Natural gas used in Circulating Fluidized Bed Boiler No. 1 (for startup only).		
2. Source Classification Code (SCC): 10100299		3. SCC Units: Million cubic feet burned
4. Maximum Hourly Rate: 0.31 (approx)	5. Maximum Annual Rate: 15.60 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1,000 (approx)
10. Segment Comment (limit to 200 characters): Natural gas is to be used for startup only.		



**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment  5  of  5

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): Distillate oil used in Circulating Fluidized Bed Boiler No. 1		
2. Source Classification Code (SCC): 10100299		3. SCC Units: Thousand gallons burned
4. Maximum Hourly Rate: 2.26 (approx)	5. Maximum Annual Rate: 113 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.05	8. Maximum % Ash:	9. Million Btu per SCC Unit: 140 (approx)
10. Segment Comment (limit to 200 characters): Distillate oil is to be used for startup only.		

**F. EMISSIONS UNIT POLLUTANTS  
(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>CO</b>			<b>EL</b>
<b>NO<sub>x</sub></b>	<b>107</b>		<b>EL</b>
<b>PM</b>	<b>018</b>		<b>EL</b>
<b>PM<sub>10</sub></b>	<b>018</b>		<b>EL</b>
<b>SO<sub>2</sub></b>	<b>041</b>	<b>013</b>	<b>EL</b>
<b>VOC</b>			<b>EL</b>
<b>H114</b>	<b>013</b>	<b>018</b>	<b>EL</b>
<b>PB</b>	<b>0</b>	<b>018</b>	<b>EL</b>
<b>SAM</b>	<b>041</b>	<b>013</b>	<b>EL</b>
<b>H107</b>	<b>013</b>		<b>EL</b>
<b>H106</b>	<b>013</b>		<b>NS</b>
<b>HAPS</b>			<b>NS</b>

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 350 lb/hour		4. Synthetically Limited? [ ] 1,533 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 350 lb/hr Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The CO emissions limit of 350 lb/hour as a 24-hour average (excluding startup and shutdown) is set by construction permit PSD-FL-265. The CO emissions limit of 1,533 tons/year is set by construction permit PSD-FL-265.			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  2

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 350 lb/hr (24-hour block average)		4. Equivalent Allowable Emissions: 350 lb/hour 1,533 tons/year	
5. Method of Compliance (limit to 60 characters): Compliance with the CO emission limits will be demonstrated using CEMS.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The CO emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			

Emissions Unit Information Section  2  of  16

Pollutant Detail Information Page  2  of  13

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Allowable Emissions** Allowable Emissions  2  of  2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 1,533 tons per year	4. Equivalent Allowable Emissions: lb/hour      1,533 tons/year
5. Method of Compliance (limit to 60 characters): Compliance with the annual CO emissions limit will be demonstrated by summing the products of hourly CO emission rate data and heat input data from the CEMS.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The CO emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: NO <sub>x</sub>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 249 lb/hour		4. Synthetically Limited? [ ] 1,090 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.09 lb/mmBtu Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The NO <sub>x</sub> Emissions limit of 0.09 lb/mmBtu is set by construction permit PSD-FL-265. The heat input rate to EU027 is 2,764 mmBtu/hr. Hourly NO <sub>x</sub> emissions rate = (0.09 lb/mmBtu)(2,764 mmBtu/hr) = 249 lb/hr Annual NO <sub>x</sub> emissions rate = (0.09 lb/mmBtu)(2,764 mmBtu/hr)(8,760 hr/yr)(ton/2,000 lb) = = 1,090 tons/yr			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.09 lb/mmBtu on a 30-day rolling average		4. Equivalent Allowable Emissions: 249 lb/hour 1,090 tons/year	
5. Method of Compliance (limit to 60 characters): Compliance with the NO <sub>x</sub> emission limit will be demonstrated using CEMs.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The NO <sub>x</sub> emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265. The NO <sub>x</sub> emissions limit is on a 30-day rolling average basis.			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**

**(Regulated Emissions Units -**

**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 30 lb/hour		4. Synthetically Limited? [ ] 133 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.011 lb/mmBtu Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The PM Emissions limit of 0.011 lb/mmBtu is set by construction permit PSD-FL-265. The heat input rate to EU027 is 2,764 mmBtu/hr. Hourly PM emissions rate = (0.011 lb/mmBtu)(2,764 mmBtu/hr) = 30 lb/hr Annual PM emissions rate = (0.011 lb/mmBtu)(2,764 mmBtu/hr)(8,760 hr/yr)(ton/2,000 lb) = = 133 ton/yr			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.011 lb/mmBtu based on a 3-hour average		4. Equivalent Allowable Emissions: 30 lb/hour 133 tons/year	
5. Method of Compliance (limit to 60 characters): Using appropriate EPA Methods, initial compliance testing while firing petroleum coke will be conducted. Compliance testing while firing petroleum coke will be conducted quarterly for the first two years of operation and then annually thereafter.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The PM emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PM <sub>10</sub>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 30 lb/hour		4. Synthetically Limited? [ ]	
		133 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.011 lb/mmBtu Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The PM <sub>10</sub> Emissions limit of 0.011 lb/mmBtu is set by construction permit PSD-FL-265. The heat input rate to EU027 is 2,764 mmBtu/hr. Hourly PM <sub>10</sub> emissions rate = (0.011 lb/mmBtu)(2,764 mmBtu/hr) = 30 lb/hr Annual PM <sub>10</sub> emissions rate = (0.011 lb/mmBtu)(2,764 mmBtu/hr)(8,760 hr/yr)(ton/2,000 lb) = 133 ton/yr			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.011 lb/mmBtu based on a 3-hour average		4. Equivalent Allowable Emissions: 30 lb/hour 133 tons/year	
5. Method of Compliance (limit to 60 characters): Using appropriate EPA Methods, initial compliance testing while firing petroleum coke will be conducted. Compliance testing while firing petroleum coke will be conducted annually thereafter.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The PM <sub>10</sub> emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: SO <sub>2</sub>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 553 lb/hour		4. Synthetically Limited? [ ] 1,816 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.20 lb/mmBtu and 0.15 lb/mmBtu Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The SO <sub>2</sub> Emissions limits of 0.20 lb/mmBtu (24-hour block average) and 0.15 lb/mmBtu (30-day rolling average) are set by construction permit PSD-FL-265. The heat input rate to EU027 is 2,764 mmBtu/hr. Hourly SO <sub>2</sub> emissions rate (24-hour average) = (0.20 lb/mmBtu)(2,764 mmBtu/hr) = 553 lb/hr Hourly SO <sub>2</sub> emissions rate (30-day average) = (0.15 lb/mmBtu)(2,764 mmBtu/hr) = 415 lb/hr Annual SO <sub>2</sub> emissions rate = (0.15 lb/mmBtu)(2,764 mmBtu/hr)(8,760 hr/yr)(ton/2,000 lb) = 1,816 ton/yr			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  2

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.20 lb/mmBtu (24-hour block average)		4. Equivalent Allowable Emissions: 553 lb/hour tons/year	
5. Method of Compliance (limit to 60 characters): Compliance with the SO <sub>2</sub> emission limit will be demonstrated using CEMs.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The SO <sub>2</sub> emissions limits along with compliance determination requirements are included in construction permit PSD-FL-265.			



Emissions Unit Information Section  2  of  16

Pollutant Detail Information Page  7  of  13

Allowable Emissions Allowable Emissions  2  of  2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.15 lb/mmBtu (30-day rolling average)	4. Equivalent Allowable Emissions: 415 lb/hour      1,816 tons/year
5. Method of Compliance (limit to 60 characters): Compliance with the SO <sub>2</sub> emission limit will be demonstrated using CEMs.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The SO <sub>2</sub> emissions limits along with compliance determination requirements are included in construction permit PSD-FL-265.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 14 lb/hour		4. Synthetically Limited? [ ] 61.5 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 14 lb/hour and 61.5 tons/year Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The VOC emissions limit of 14 lb/hour is set by construction permit PSD-FL-265. The VOC emissions limit of 61.5 tons/year is set by construction permit PSD-FL-265.			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  2

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 14 lb/hr (3-hour average)		4. Equivalent Allowable Emissions: 14 lb/hour 61.5 tons/year	
5. Method of Compliance (limit to 60 characters): Using appropriate EPA Methods, initial compliance testing while firing petroleum coke will be conducted. Compliance testing will be conducted once within every five years thereafter while firing petroleum coke or coal.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The VOC emissions limits along with compliance determination requirements are included in construction permit PSD-FL-265.			

**Allowable Emissions** Allowable Emissions  2  of  2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 61.5 tons per year	4. Equivalent Allowable Emissions: lb/hour                  61.5 tons/year
5. Method of Compliance (limit to 60 characters): Compliance with the annual limit is demonstrated by demonstrating compliance with the short-term emissions limit.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The VOC emissions limits along with compliance determination requirements are included in construction permit PSD-FL-265.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: H114		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.03 lb/hour		0.13 tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.03 lb/hour Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The mercury emissions limit of 0.03 lb/hour is set by construction permit PSD-FL-265. Annual mercury emissions rate = (0.03 lb/hr)(8,760 hr/yr)(ton/2,000 lb) = 0.13 tons/year			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.03 lb/hour (6-hour average)	4. Equivalent Allowable Emissions: 0.03 lb/hour 0.13 tons/year
5. Method of Compliance (limit to 60 characters): Initial compliance testing on NGS – Circulating Fluidized Bed Boiler No. 2 (EU026) is used as a surrogate to demonstrate compliance.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The mercury emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PB		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.07 lb/hour		4. Synthetically Limited? [ ] 0.31 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.07 lb/hour Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The lead emissions limit of 0.07 lb/hour is set by construction permit PSD-FL-265. Annual lead emissions rate = (0.07 lb/hr)(8,760 hr/yr)(ton/2,000 lb) = 0.31 tons/year			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.07 lb/hr (3-hour average)		4. Equivalent Allowable Emissions: 0.07 lb/hour 0.31 tons/year	
5. Method of Compliance (limit to 60 characters): Initial compliance testing on NGS – Circulating Fluidized Bed Boiler No. 2 (EU026) is used as a surrogate to demonstrate compliance.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The lead emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: SAM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 1.1 lb/hour		4. Synthetically Limited? [ ]	4.82 tons/year
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 1.1 lb/hour Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The sulfuric acid mist emissions limit of 1.1 lb/hour is set by construction permit PSD-FL-265. Annual sulfuric acid mist emissions rate = (1.1 lb/hr)(8,760 hr/yr)(ton/2,000 lb) = 4.82 tons/year			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 1.1 lbs/hour (3-hour average)	4. Equivalent Allowable Emissions: 1.1 lb/hour 4.82 tons/year
5. Method of Compliance (limit to 60 characters): Initial compliance testing on NGS – Circulating Fluidized Bed Boiler No. 2 (EU026) is used as a surrogate to demonstrate compliance.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The sulfuric acid mist emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: H107		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.43 lb/hour		4. Synthetically Limited? [ ] 1.88 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.43 lb/hour Reference: Construction permit PSD-FL-265		7. Emissions Method Code: 0	
8. Calculation of Emissions (limit to 600 characters): The hydrogen fluoride emissions limit of 0.43 lb/hr is set by construction permit PSD-FL-265. Annual hydrogen fluoride emissions rate = (0.43 lb/hr)(8,760 hr/yr)(ton/2,000 lb) = 1.88 tons/year			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.43 lb/hour (3-hour average)		4. Equivalent Allowable Emissions: 0.43 lb/hour 1.88 tons/year	
5. Method of Compliance (limit to 60 characters): Initial compliance testing on NGS – Circulating Fluidized Bed Boiler No. 2 (EU026) is used as a surrogate to demonstrate compliance.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The hydrogen fluoride emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

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

1. Visible Emissions Subtype: V10	2. Basis for Allowable Opacity: [ ] Rule [ X ] Other
3. Requested Allowable Opacity: Normal Conditions: 10 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Compliance with the visible emissions limit will be demonstrated using a continuous opacity monitor (COM).	
5. Visible Emissions Comment (limit to 200 characters): The visible emissions limit is based on a 6-minute block average and is based on excluding periods of startup, shutdown and malfunction. The visible emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  1  of  5

1. Parameter Code: VE	2. Pollutant(s):
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	



**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  2  of  5

1. Parameter Code: EM	2. Pollutant(s): CO
3. CMS Requirement:	[ ] Rule [ X ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): Use of CEMs required by construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  3  of  5

1. Parameter Code: EM	2. Pollutant(s): NOX
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  4  of  5

1. Parameter Code: EM	2. Pollutant(s): SO2
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor  5  of  5

1. Parameter Code: O2 or CO2	2. Pollutant(s):
3. CMS Requirement:	[ X ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID:Attachment C <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input checked="" type="checkbox"/> Attached, Document ID:Attachment M <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID:Attachment N <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input checked="" type="checkbox"/> Attached, Document ID:Attachment O <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input checked="" type="checkbox"/> Attached, Document ID:Attachment Q <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input checked="" type="checkbox"/> Attached, Document ID:Attachment R <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment: The deadline for compliance testing has not been reached and compliance testing has not yet been conducted for this emissions unit. Compliance testing for this emissions unit will be conducted as required by PSD-FL-265.

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

11. Alternative Methods of Operation [ X ] Attached, Document ID: Attachment H [ ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ X ] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ X ] Not Applicable
14. Compliance Assurance Monitoring Plan [ X ] Attached, Document ID: Attachment S [ ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) Attachment T [ ] Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ [ ] Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one) <input type="checkbox"/> 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). <input type="checkbox"/> 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. <input checked="" type="checkbox"/> 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. Regulated or Unregulated Emissions Unit? (Check one) <input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit. <input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Transfer towers (EU028c, g, I, q,t,u), Coal and petroleum coke storage buildings (EU028h), Stack/reclaimers (EU028), limestone storage (EU028d) and conveyors (EU028).			
4. Emissions Unit Identification Number: <span style="float: right;"><input type="checkbox"/> No ID</span> ID: 028 <span style="float: right;"><input type="checkbox"/> ID Unknown</span>			
5. Emissions Unit Status Code: A	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters) This emissions unit consists of multiple material handling and storage which are sources of fugitive emission sources.			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Particulate matter emissions from this emissions unit will be controlled, on an as needed basis, by the use of wet suppression, water spray, coverings, and/or conditioned materials.  
 Particulate matter emissions from this emissions unit are fugitive emissions.

2. Control Device or Method Code(s): 061, 062, and 054 as needed

**Emissions Unit Details**

1. Package Unit: Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information: Not applicable	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	2,420,000 tons per year coal/pet coke 1,450,000 tons per year limestone	
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:	24 hours/day 52 weeks/year	7 days/week 8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): While the maximum hourly throughputs differ for the different equipment covered under this emissions unit, construction permit number PSD-FL-265 limits the annual coal/petroleum coke handling and usage rate to 2.42 million tons per year and limits the annual limestone handling and usage rate to 1.45 million tons per year.		





**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU028, EU028c, EU028d, EU028h and EU028i		2. Emission Point Type Code: 4	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Transfer towers (EU028c,g,i,q,t,u) include conveyor transfer points. The coal And petroleum coke storage buildings are EU028h and the stacker/reclaimers within the storage buildings are EU028. Limestone storage and reclaim is EU028d.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: F	6. Stack Height: feet	7. Exit Diameter: feet	
8. Exit Temperature: 77°F (approx)	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: Varies feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters): EU028c is for conveyor transfer towers for coal, petroleum coke and limestone conveying from NGS Vessel unloading to the NGS coal and petroleum coke storage enclosure transfer point. EU028d is for emissions from limestone storage and reclaim activities at the new limestone storage pile and for the coal/pet coke transfer point prior to the enclosed fuel storage enclosures. EU028h is for the new coal/pet coke enclosed storage area. EU028i is for the new transfer tower between the crusher house and the boiler fuel silos.			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment 1 of 5

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Vessel unloading activities – coal, pet coke and limestone (EU028a)		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons handled
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 3,870,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): The maximum annual rate is based on handling/usage limits of 2.42 million tons per year coal/petroleum coke and 1.45 million tons per year limestone included in construction permit PSD-FL-265.		

**Segment Description and Rate:** Segment 2 of 5

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Transfer towers – coal, pet coke and limestone (EU028c)		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons handled
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 3,870,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): The maximum annual rate is based on handling/usage limits of 2.42 million tons per year coal/petroleum coke and 1.45 million tons per year limestone included in construction permit PSD-FL-265.		

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(All Emissions Units)**

**Segment Description and Rate:** Segment  3  of  5

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Limestone handling (EU028d) Transfer tower – coal and pet coke (EU028d)		
2. Source Classification Code (SCC): 30501099	3. SCC Units: Tons handled	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 3,870,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): The maximum annual rate is based on handling/usage limits of 2.42 million tons per year coal/petroleum coke and 1.45 million tons per year limestone included in construction permit PSD-FL-265		

**Segment Description and Rate:** Segment  4  of  5

1. Segment Description (Process/Fuel Type) (limit to 500 characters): New enclosed structures for coal and petroleum coke storage and handling (EU028h)		
2. Source Classification Code (SCC): 30501099	3. SCC Units: Tons handled	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 2,420,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:

10. Segment Comment (limit to 200 characters): The maximum annual rate is based on handling/usage limits of 2.42 million tons per year coal/petroleum coke included in construction permit PSD-FL-265.

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

**(All Emissions Units)**

**Segment Description and Rate:** Segment 5 of 5

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): Transfer tower – coal and pet coke (EU028i)		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons handled
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 2,420,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): The maximum annual rate is based on handling/usage limits of 2.42 million tons per year coal/petroleum coke included in construction permit PSD-FL-265		



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		4. Synthetically Limited? [ ] tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): This section is not completed because this emissions unit does not pertain to an emissions limited pollutant.			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

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

1. Visible Emissions Subtype: V05	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Using EPA Method 9, an initial visible emissions compliance test was conducted to show compliance with the visible emissions limit.	
5. Visible Emissions Comment (limit to 200 characters): The 5 percent opacity limit applies to EU028, EU028c,g,i,q,t,u, EU028d, EU028h and EU028i as described in Section III.G above. The visible emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units 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 (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: Attachment C <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment: Because excess emissions during periods of startup or shutdown are not anticipated a Procedures for Startup and Shutdown document is not required.



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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one) <input type="checkbox"/> 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). <input type="checkbox"/> 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. <input checked="" type="checkbox"/> 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. Regulated or Unregulated Emissions Unit? (Check one) <input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit. <input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Materials handling & storage operations consisting of vessel unloading operations (EU028a), Limestone storage pile and limestone reclaim hoppers (EU028p).			
4. Emissions Unit Identification Number: <span style="float: right;"><input type="checkbox"/> No ID</span> ID: 028 <span style="float: right;"><input type="checkbox"/> ID Unknown</span>			
5. Emissions Unit Status Code: A	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters) This emissions unit consists of limestone handling and storage which are fugitive emission sources.			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Particulate matter emissions from this emissions unit will be controlled, on an as needed basis, by the use of wet suppression, water spray, coverings, and/or conditioned materials.  
 Particulate matter emissions from this emissions unit are fugitive emissions.

2. Control Device or Method Code(s): 061, 062, and 054 as needed

**Emissions Unit Details**

1. Package Unit:		
Manufacturer:		Model Number:
2. Generator Nameplate Rating:		MW
3. Incinerator Information: Not applicable		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr tons/day
3. Maximum Process or Throughput Rate: 1,450,000 tons per year limestone	
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): While the maximum hourly throughputs differ for the different equipment covered under this emissions unit, construction permit number PSD-FL-265 limits the annual limestone handling and usage rate to 1,450,000 tons per year.	

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU028p, EU028a		2. Emission Point Type Code: 4	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Limestone storage pile and limestone reclaim hopper (EU028p)and EU028a is for new NGS Vessel unloading operations..			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: F	6. Stack Height: feet	7. Exit Diameter: feet	
8. Exit Temperature: 77°F (approx)	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: Varies feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):			
14. Emission Point Comment (limit to 200 characters):			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment 1 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Storage pile – limestone (EU028p)		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons handled
4. Maximum Hourly Rate: N/A	5. Maximum Annual Rate: 1,450,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): The maximum annual rate is based on handling/usage limits of 1.45 million tons per year limestone included in construction permit PSD-FL-265.		

**Segment Description and Rate:** Segment 2 of 3

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): Reclaim hoppers – limestone (EU028p), materials handling & storage operations consisting of vessel unloading operations (EU028a).		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons handled
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 3,870,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): The maximum annual rate is based on handling/usage limits of 1.45 million tons per year limestone included in construction permit PSD-FL-265.		

**Emissions Unit Information Section 3b of 16**

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

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Vessel unloading activities – coal, pet coke and limestone (EU028a)		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons handled
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 3,870,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): The maximum annual rate is based on handling/usage limits of 2.42 million tons per year coal/petroleum coke and 1.45 million tons per year limestone included in construction permit PSD-FL-265.		

**Segment Description and Rate: Segment \_\_\_\_\_ of \_\_\_\_\_**

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
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 (limit to 200 characters):		





**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		4. Synthetically Limited? [ ] tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): This section is not completed because this emissions unit does not pertain to an emissions limited pollutant.			

**Allowable Emissions** Allowable Emissions   of

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: V10	2. Basis for Allowable Opacity: [ ] Rule [ X ] Other
3. Requested Allowable Opacity: Normal Conditions: 10 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Using EPA Method 9, an initial visible emissions compliance test was conducted to show compliance with the visible emissions limit.	
5. Visible Emissions Comment (limit to 200 characters): The 10 percent opacity limit applies to EU028p and EU028a as described in Section III.G above. The visible emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

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

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: Attachment C <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment: Because excess emissions during periods of startup or shutdown are not anticipated a Procedures for Startup and Shutdown document is not required.

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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> 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).</p> <p><input checked="" type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):</p> <p>NGS – Crusher Building Baghouse Exhaust.</p>			
<p>4. Emissions Unit Identification Number: <span style="float: right;"><input type="checkbox"/> No ID</span></p> <p>ID: 029 <span style="float: right;"><input type="checkbox"/> ID Unknown</span></p>			
<p>5. Emissions Unit Status Code:</p> <p style="text-align: center;">A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code:</p> <p style="text-align: center;">49</p>	<p>8. Acid Rain Unit?</p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters) This emissions unit consists of crushing operations for coal and petroleum coke. This emissions unit was designated NGS – Crusher House in construction permit PSD-FL-265. JEA requests that this emissions unit be designated NGS – Crusher Building Baghouse Exhaust.</p>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Particulate matter emissions from the crushers and transfer points in the crusher building are controlled with a single baghouse venting to a single stack.

2. Control Device or Method Code(s): 018

**Emissions Unit Details**

1. Package Unit: Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information: Not applicable	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate: 2,420,000 tons per year		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): Construction permit number PSD-FL-265 limits the annual coal/petroleum coke handling and usage rate to 2.42 million tons per year.		



**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU029		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: H	6. Stack Height: 8 (approx) feet	7. Exit Diameter: feet	
8. Exit Temperature: 77°F (approx)	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: 17                      East (km): 446.756                      North (km): 3365.328			
14. Emission Point Comment (limit to 200 characters): Particulate matter emissions from the crushers and transfer points in the crusher building are controlled with a single baghouse venting to a single exhaust.			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment  1  of  3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Crushing Operations – Coal		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons processed
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 2,420,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Operation is with either coal or petroleum coke or with a coal/petroleum coke blend with a combined maximum throughput of 2,420,000 tons per year per Permit PSD-FL-265.		

**Segment Description and Rate:** Segment  2  of  3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Crushing Operations –Petroleum Coke		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons processed
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 2,420,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Operation is with either coal or petroleum coke or with a coal/petroleum coke blend with a combined maximum throughput of 2,420,000 tons per year per Permit PSD-FL-265.		

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

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): Crushing Operations – Coal/Petroleum Coke Blend		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons processed
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 2,420,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Operation is with either coal or petroleum coke or with a coal/petroleum coke blend with a combined maximum throughput of 2,420,000 tons per year per Permit PSD-FL-265.		

**F. EMISSIONS UNIT POLLUTANTS**  
**(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE 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. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Using EPA Method 9, a 3-hour initial visible emissions test was conducted and a 30 minute renewal visible emissions test will be conducted once every five years.	
5. Visible Emissions Comment (limit to 200 characters): The visible emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units 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 (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: Attachment C <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: Attachment N <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input checked="" type="checkbox"/> Attached, Document ID: Attachment P <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:          



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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> 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).</p> <p><input checked="" type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): NGS – Fuel Silo Dust Collectors.</p>			
<p>4. Emissions Unit Identification Number: <span style="float: right;"><input type="checkbox"/> No ID</span> ID: 031 <span style="float: right;"><input type="checkbox"/> ID Unknown</span></p>			
<p>5. Emissions Unit Status Code: A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code: 49</p>	<p>8. Acid Rain Unit? <input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters): Emissions Unit No. 031 consists of ten fuel silos and two tripper transfer points. There are five fuel silos and one tripper transfer point associated with each of the two CFB units. This emissions unit is designated as NGS – Boiler Fuel Silos in construction permit PSD-FL-265. JEA requests that this emissions unit be designated NGS – Fuel Silo Dust Collectors.</p>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Particulate matter emissions from each set of CFB fuel silos are controlled by a baghouse. Therefore, this emissions unit consists of two baghouses, each venting to it's own stack.

2. Control Device or Method Code(s): 018

**Emissions Unit Details**

1. Package Unit:		
Manufacturer:		Model Number:
2. Generator Nameplate Rating:		MW
3. Incinerator Information: Not applicable		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	2,420,000 tons per year	
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	coal and petroleum coke are fed to the fuel silos from the crusher house. Construction permit number PSD-FL-265 limits the annual coal/petroleum coke handling and usage rate to 2.42 million tons per year.	

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU031		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): The fuel silos dust collector for Unit 1 (DC-03) is located on the tripper floor at the south end of the Unit 1 fuel silos. The fuel silos dust collector for Unit 2 (DC-02) is located in the Plant Transfer Building.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: H	6. Stack Height: feet	7. Exit Diameter: feet	
8. Exit Temperature: 77°F (approx)	9. Actual Volumetric Flow Rate: 10,000 (DC-03) (approx) 18,000 (DC-02) (approx)	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 446.823                      North (km): 3,365.073			
14. Emission Point Comment (limit to 200 characters): Particulate matter emissions from this emissions unit are controlled with two baghouses, each venting to it's own stack.			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment  1  of  3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Coal handling/storage		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons processed
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 2,420,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Operation is with either coal or petroleum coke or with a coal/petroleum coke blend with a combined maximum throughput of 2,420,000 tons per year per Permit PSD-FL-265.		

**Segment Description and Rate:** Segment  2  of  3

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): Petroleum coke handling/storage		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons processed
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 2,420,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Operation is with either coal or petroleum coke or with a coal/petroleum coke blend with a combined maximum throughput of 2,420,000 tons per year per Permit PSD-FL-265.		

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

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): Coal/Petroleum coke blend handling/storage		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons processed
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 2,420,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Operation is with either coal or petroleum coke or a coal/petroleum coke blend with a combined maximum throughput of 2,420,000 tons per year per Permit PSD-FL-265.		





**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

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

1. Visible Emissions Subtype: VE05	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Using EPA Method 9, a 3-hour initial visible emissions test was conducted at both fuel silo dust collector stacks and a 30 minute renewal visible emissions test will be conducted once every five years.	
5. Visible Emissions Comment (limit to 200 characters): The visible emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units 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 (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

<p>1. Process Flow Diagram  <input checked="" type="checkbox"/> Attached, Document ID: Attachment C <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>2. Fuel Analysis or Specification  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>3. Detailed Description of Control Equipment  <input checked="" type="checkbox"/> Attached, Document ID: Attachment N <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>4. Description of Stack Sampling Facilities  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>5. Compliance Test Report  <input checked="" type="checkbox"/> Attached, Document ID: Attachment P  <input type="checkbox"/> Previously submitted, Date: _____  <input type="checkbox"/> Not Applicable</p>
<p>6. Procedures for Startup and Shutdown  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>7. Operation and Maintenance Plan  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>8. Supplemental Information for Construction Permit Application  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>9. Other Information Required by Rule or Statute  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>10. Supplemental Requirements Comment:</p>          

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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> 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).</p> <p><input checked="" type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):</p> <p>NGS – Limestone Dryer/Mills</p>			
<p>4. Emissions Unit Identification Number: <span style="float: right;"><input type="checkbox"/> No ID</span></p> <p>ID: 033 <span style="float: right;"><input type="checkbox"/> ID Unknown</span></p>			
<p>5. Emissions Unit Status Code:</p> <p style="text-align: center;">A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code:</p> <p style="text-align: center;">49</p>	<p>8. Acid Rain Unit?</p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters) This emissions unit consists of three limestone dryer/mills (Nos. 1, 2 &amp; 3), each equipped with a baghouse for particulate matter control.</p>			

**Emissions Unit Control Equipment**

<p>1. Control Equipment/Method Description (Limit to 200 characters per device or method):                  Particulate matter emissions from each of the three separate dryer/mill systems are controlled with a baghouse, exclusive to that dryer/mill system and each baghouse vents to it's own stack. Therefore, this emissions unit consists of three separate emission points.</p>
<p>2. Control Device or Method Code(s): 018</p>

**Emissions Unit Details**

<p>1. Package Unit:                  Manufacturer: _____ Model Number: _____</p>
<p>2. Generator Nameplate Rating: _____ MW</p>
<p>3. Incinerator Information: Not applicable</p> <p style="margin-left: 100px;">Dwell Temperature: _____ °F</p> <p style="margin-left: 100px;">Dwell Time: _____ seconds</p> <p style="margin-left: 100px;">Incinerator Afterburner Temperature: _____ °F</p>

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate: 57.9	mmBtu/hr
2. Maximum Incineration Rate: lb/hr	tons/day
3. Maximum Process or Throughput Rate: 1.45 million tons per year	
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): Limestone is processed by each of the three dryer/mills. Construction permit PSD-FL-265 limits the annual limestone handling and usage rate to 1.45 million tons per year. Each dryer/mill is designed for a maximum heat input rate of 19.3 mmBtu/hr for a total heat input rate of 57.9 mmBtu/hr.	



**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU033		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Particulate matter from each of the three separate limestone dryer/mill systems is controlled with a baghouse exclusive to that limestone dryer/mill system and each baghouse vents to it's own stack. Therefore, this emissions unit consists of three emission points.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: W	6. Stack Height: feet	7. Exit Diameter: feet	
8. Exit Temperature: 165°F (approx)	9. Actual Volumetric Flow Rate: 41,000 (approx) acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 446.783                      North (km): 3,365.239			
14. Emission Point Comment (limit to 200 characters):			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment  1  of  3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Limestone dryer/mill – limestone processing		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons processed
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 1,420,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

**Segment Description and Rate:** Segment  2  of  3

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): Natural gas used in limestone dryers		
2. Source Classification Code (SCC): 10201401		3. SCC Units: Million cubic feet burned
4. Maximum Hourly Rate: 0.055 (approx)	5. Maximum Annual Rate: 481.8 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1,050 (approx)
10. Segment Comment (limit to 200 characters): The hourly and annual fuel use rates are for all three dryers combined.		

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
(All Emissions Units)

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

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Distillate oil use in limestone dryers		
2. Source Classification Code (SCC): 10201403	3. SCC Units: Thousand gallons burned	
4. Maximum Hourly Rate: 0.41 (approx)	5. Maximum Annual Rate: 3,623 (approx)	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.05	8. Maximum % Ash:	9. Million Btu per SCC Unit: 140 (approx)
10. Segment Comment (limit to 200 characters): The hourly and annual fuel use rates are for all three dryers combined.		

**Segment Description and Rate:** Segment   of

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):		
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 (limit to 200 characters):		

**F. EMISSIONS UNIT POLLUTANTS  
(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>PM</b>	<b>018</b>		<b>EL</b>
<b>SO2</b>	<b>099</b>		<b>WP</b>
<b>CO</b>	<b>099</b>		<b>NS</b>
<b>NOx</b>	<b>099</b>		<b>NS</b>
<b>PM10</b>	<b>018</b>		<b>NS</b>

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control: 99.94%	
3. Potential Emissions: 7.92 lb/hour		4. Synthetically Limited? [ ] 34.09 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 80.017 lb/ton Reference: AP-42, Section 11.17		7. Emissions Method Code: 3	
8. Calculation of Emissions (limit to 600 characters): AP-42, Section 11.17 emission factor for a coal and gas fired rotary kiln = 80 lb/ton AP-42, Section 11.17 emission factor for a primary crusher is 0.017 lb/ton Hourly PM emissions rate: $(3 \text{ dryers})(55 \text{ ton/hr/dryer})(80.017 \text{ lb/ton})(1-0.9994) = 7.92 \text{ lb/hour}$ Annual PM emissions rate: $(1,420,000 \text{ ton/yr})(80.017 \text{ lb/ton})(1-0.9994)(\text{ton}/2,000 \text{ lb}) = 34.09 \text{ ton/year}$			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PM10		2. Total Percent Efficiency of Control: 99.94%	
3. Potential Emissions: 0.95 lb/hour		4. Synthetically Limited? [ ] 4.09 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 9.609 lb/ton Reference: AP-42, Section 11.17		7. Emissions Method Code: 3	
8. Calculation of Emissions (limit to 600 characters): AP-42, Section 11.17 coal and gas fired rotary kiln PM emission factor adjusted based on average particle size distribution (AP-42, Table 11.17-7) = (80 lb/ton)(0.12) = 9.60 lb/ton AP-42, Section 11.17 primary crusher PM emission factor adjusted based on AP-42, Table B.2.2, category 3 particle size distribution = (0.017 lb/ton)(0.51) = 0.009 Hourly PM <sub>10</sub> emissions rate: (3 dryers)(55 ton/hr/dryer)(9.609 lb/ton)(1-0.9994) = 0.95 lb/hour Annual PM <sub>10</sub> emissions rate: (1,420,000 ton/yr)(9.609 lb/ton)(1-0.9994)(ton/2,000 lb) = 4.09 ton/year			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

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

1. Visible Emissions Subtype: V05	2. Basis for Allowable Opacity: [ ] Rule [ X ] Other
3. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Using Method 9, an initial compliance test was conducted. Because fuel oil has not yet been fired in these dryers, the initial compliance tests were conducted while firing natural gas. JEA requests that these compliance tests be accepted as the initial compliance tests for this emissions unit and waive the requirement to conduct an initial compliance test while firing fuel oil as required by construction permit PSD-FL-265. The primary source of particulate emissions from the dryers is from the drying of the limestone and the type of fuel fired in the dryer is expected to have a minor affect on opacity. In subsequent years, compliance testing while firing fuel oil will be conducted if fuel oil is fired for more than 400 hours in the previous federal fiscal year. At a minimum, a compliance test will be conducted once every five years.	
5. Visible Emissions Comment (limit to 200 characters): The visible emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

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

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	



**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram [ X ] Attached, Document ID:Attachment C [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ X ] Attached, Document ID:Attachment M [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ X ] Attached, Document ID:Attachment N [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ X ] Attached, Document ID:Attachment O [ ] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ X ] Attached, Document ID:Attachment P [ ] Previously submitted, Date: _____ [ ] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [ X ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [ X ] Not Applicable
10. Supplemental Requirements Comment:

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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> 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).</p> <p><input checked="" type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):</p> <p>NGS – Limestone Prep Dust Collectors</p>			
<p>4. Emissions Unit Identification Number: <span style="float: right;"><input type="checkbox"/> No ID</span></p> <p>ID: 034 <span style="float: right;"><input type="checkbox"/> ID Unknown</span></p>			
<p>5. Emissions Unit Status Code:</p> <p style="text-align: center;">A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code:</p> <p style="text-align: center;">49</p>	<p>8. Acid Rain Unit?</p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters) This emissions unit consists of three separate baghouse exhausts, with one baghouse used to control emissions of “nuisance” dust from each of the three limestone prep system trains. This emissions unit is designated as NGS – Limestone Crusher Conveyor Transfers in construction permit PSD-FL-265. JEA requests that this emissions unit be designated NGS – Limestone Prep Dust Collectors.</p>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Particulate emissions from each of the three separate limestone prep systems are controlled by a separate baghouse for each system vented to it's own stack. Therefore, there are a total of three emission points associated with this emissions unit.

2. Control Device or Method Code(s): 018

**Emissions Unit Details**

1. Package Unit:		
Manufacturer:		Model Number:
2. Generator Nameplate Rating:		MW
3. Incinerator Information: Not applicable		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr tons/day
3. Maximum Process or Throughput Rate: 150 tons per hour (approx)	
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): Each of the three limestone systems is designed to process approximately 50 tons dry crushed limestone per hour. Therefore, the combined throughput rate for this emissions unit is approximately 150 tons dry limestone per hour.	

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b>	
<b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b>	

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU034		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): This emissions unit consists of three baghouse exhaust emission points, each venting through a horizontal exhaust on the West side of the limestone prep building.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: H	6. Stack Height: N/A	feet	7. Exit Diameter: N/A
		feet	feet
8. Exit Temperature: N/A°F	9. Actual Volumetric Flow Rate: 10,500 (approx)	acfm	10. Water Vapor: N/A
			%
11. Maximum Dry Standard Flow Rate: N/A		dscfm	12. Nonstack Emission Point Height: feet
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 446.750                      North (km):3,365.233			
14. Emission Point Comment (limit to 200 characters): Particulate emissions from each of the three separate limestone prep systems are controlled by a separate baghouse for each system vented to it's own stack. Therefore, there are a total of threes emission points associated with this emissions unit.			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

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

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Limestone transfer		
2. Source Classification Code (SCC): 30510105	3. SCC Units: Tons handled	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 1,314,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

**Segment Description and Rate:** Segment \_\_\_\_\_ of \_\_\_\_\_

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):		
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 (limit to 200 characters):		





**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PM	2. Total Percent Efficiency of Control: 99.94%
3. Potential Emissions: 0.40 lb/hour	4. Synthetically Limited? [ ] 1.73 tons/year
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: 2.2 lb/ton Reference: AP-42, Section 11.17	7. Emissions Method Code: 3
8. Calculation of Emissions (limit to 600 characters): Emission factor for product transfer and conveying from AP-42 Section 11.17, Table 11.17-4 PM Hourly emissions rate: $(6 \text{ transfer points})(50 \text{ ton/hr})(2.2 \text{ lb/ton})(1-0.9994) = 0.40 \text{ lb/hr}$ PM Annual emissions rate: $(6 \text{ transfer points})(50 \text{ ton/hr})(2.2 \text{ lb/ton})(1-0.9994)(8,760 \text{ hr/yr})(\text{ton}/2,000 \text{ lb}) = 1.73 \text{ ton/yr}$	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions
2. Requested Allowable Emissions and Units: 0.01 grains per dry standard cubic foot	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters): Using EPA Method 5, an initial compliance test will be conducted to show compliance. See Attachment K – Compliance Report and Plan.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The particulate matter emissions limit and compliance determination requirements were included in construction permit PSD-FL-265.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PM10	2. Total Percent Efficiency of Control: 99.94%
3. Potential Emissions: 0.05 lb/hour	4. Synthetically Limited? [ ] 0.21 tons/year
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 to _____ tons/year	
6. Emission Factor: 0.26 lb/ton Reference: AP-42, Section 11.17	7. Emissions Method Code: 3
8. Calculation of Emissions (limit to 600 characters): Emission factor for product transfer and conveying from AP-42 Section 11.17, Table 11.17-4 and adjusted based on average particle size distribution data (AP-42, Table 11.17-7) PM <sub>10</sub> Hourly emissions rate: $(6 \text{ transfer points})(50 \text{ ton/hr})(0.26 \text{ lb/ton})(1-0.9994) = 0.05 \text{ lb/hr}$ PM <sub>10</sub> Annual emissions rate: $(6 \text{ transfer points})(50 \text{ ton/hr})(0.26 \text{ lb/ton})(1-0.9994)(8,760 \text{ hr/yr})(\text{ton}/2,000 \text{ lb}) = 0.21 \text{ ton/yr}$	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE 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. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Using Method 9, an initial compliance test was conducted and a 30 minute renewal visible emissions test will be conducted once every five years.	
5. Visible Emissions Comment (limit to 200 characters): The visible emissions limit along with compliance determination requirements are included in construction permit PDS-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units 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 (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

<p>1. Process Flow Diagram  <input checked="" type="checkbox"/> Attached, Document ID: Attachment C [ ] Not Applicable [ ] Waiver Requested</p>
<p>2. Fuel Analysis or Specification  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [ ] Waiver Requested</p>
<p>3. Detailed Description of Control Equipment  <input checked="" type="checkbox"/> Attached, Document ID: Attachment N [ ] Not Applicable [ ] Waiver Requested</p>
<p>4. Description of Stack Sampling Facilities  <input checked="" type="checkbox"/> Attached, Document ID: Attachment O [ ] Not Applicable [ ] Waiver Requested</p>
<p>5. Compliance Test Report  <input checked="" type="checkbox"/> Attached, Document ID: Attachment P  <input type="checkbox"/> Previously submitted, Date: _____  <input type="checkbox"/> Not Applicable</p>
<p>6. Procedures for Startup and Shutdown  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [ ] Waiver Requested</p>
<p>7. Operation and Maintenance Plan  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [ ] Waiver Requested</p>
<p>8. Supplemental Information for Construction Permit Application  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>9. Other Information Required by Rule or Statute  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>10. Supplemental Requirements Comment:</p>          

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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one) <input type="checkbox"/> 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). <input checked="" type="checkbox"/> 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. <input type="checkbox"/> 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. Regulated or Unregulated Emissions Unit? (Check one) <input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit. <input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): NGS – Limestone feed silos			
4. Emissions Unit Identification Number: ID: 035 <span style="float: right;"> <input type="checkbox"/> No ID  <input type="checkbox"/> ID Unknown                 </span>			
5. Emissions Unit Status Code: A	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters) This emissions unit consists of two limestone feed silos and the associated pneumatic transfer systems.			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Particulate matter emissions from each of two limestone feed silos and the associated transfer system are controlled with a baghouse exclusive to that silo, which vents to it's own stack. Therefore, this emissions unit consists of two emission points.

2. Control Device or Method Code(s): 018

**Emissions Unit Details**

1. Package Unit: Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information: Not applicable	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F



**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	1.45 million tons per year	
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): Limestone is transferred to two limestone feed silos by three pneumatic conveyors. Construction permit number PSD-FL-265 limits the annual limestone handling and usage rate to 1.45 million tons per year.		

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU035		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Particulate matter emissions from each limestone feed silo and associated transfer system are controlled with a baghouse exclusive to that silo, which vents to it's own stack. Therefore, this emissions unit consists of two emission points.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: H	6. Stack Height: 130 (approx) feet	7. Exit Diameter: feet	
8. Exit Temperature: 68°F (approx)	9. Actual Volumetric Flow Rate: 3,200 (approx) acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 446.800                      North (km): 3,365.125			
14. Emission Point Comment (limit to 200 characters):			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

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

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Limestone storage feed silos for CFB Boiler No. 2 and CFB Boiler No. 1		
2. Source Classification Code (SCC): 30510105	3. SCC Units: Tons handled	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 1,314,000	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Maximum process rates are for throughput for both silos combined. While this segment is for limestone storage, tons handled rather than tons stored is given in the SCC units field, because emissions are more a function of tons handled than tons stored.		

**Segment Description and Rate:** Segment \_\_\_\_\_ of \_\_\_\_\_

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
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 (limit to 200 characters):		



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.149 lb/hour		4. Synthetically Limited? [ ] 0.65 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.00099 (controlled) Reference: AP-42, Section 11.12		7. Emissions Method Code: 4	
8. Calculation of Emissions (limit to 600 characters): Hourly emissions rate: $(3 \text{ conveyors})(50 \text{ ton/hr/unit})(0.00099 \text{ lb/ton}) = 0.149 \text{ lb/hr}$ Annual emissions rate: $(3 \text{ conveyors})(50 \text{ ton/hr/unit})(0.00099 \text{ lb/ton})(8,760 \text{ hr/yr})(\text{ton}/2,000 \text{ lb}) = 0.65 \text{ tons/year}$			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Consistent with the application for permit PSD-FL-265, emission factors from AP-42, Section 11.12 were used. The emission factors changed with a 10/01 revision to this Section. Controlled emission factors were used to estimate emissions for this application. Estimated emissions are slightly lower than what was estimated in the PSD permit application.			

**Allowable Emissions** Allowable Emissions  1  of  1

1. Basis for Allowable Emissions Code: RULE		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.01 grains per dry standard cubic foot		4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance (limit to 60 characters): Using EPA Method 5, an initial compliance test will be conducted to show compliance. See Attachment K – Compliance Report and Plan.			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The particulate matter emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: PM10		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.051 lb/hour		4. Synthetically Limited? [ ] 0.22 tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: 0.00034 (controlled) Reference: AP-42, Section 11.12		7. Emissions Method Code: 4	
8. Calculation of Emissions (limit to 600 characters): PM <sub>10</sub> hourly emissions rate: (3 conveyors)(50 ton/hr/unit)(0.00034 lb/ton) = 0.051 lb/hr PM <sub>10</sub> annual emissions rate: (3 conveyors)(50 ton/hr/unit)(0.00034 lb/ton)(8,760 hr/yr)(ton/2,000 lb) = 0.22 tons/year			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Consistent with the application for permit PSD-FL-265, emission factors from AP-42, Section 11.12 were used. The emission factors changed with a 10/01 revision to this Section. Controlled emission factors were used to estimate emissions for this application. Estimated emissions are lower than what was estimated in the PSD permit application.			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE 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. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Using Method 9, an initial compliance test was conducted and a 30 minute renewal visible emissions test will be conducted once every five years.	
5. Visible Emissions Comment (limit to 200 characters): The visible emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units 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 (limit to 200 characters):	



**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: Attachment C [   ] Not Applicable [   ] Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [   ] Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: Attachment N [   ] Not Applicable [   ] Waiver Requested
4. Description of Stack Sampling Facilities <input checked="" type="checkbox"/> Attached, Document ID: Attachment O [   ] Not Applicable [   ] Waiver Requested
5. Compliance Test Report <input checked="" type="checkbox"/> Attached, Document ID: Attachment P <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [   ] Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [   ] Waiver Requested
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:          

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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one) <input type="checkbox"/> 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). <input checked="" type="checkbox"/> 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. <input type="checkbox"/> 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. Regulated or Unregulated Emissions Unit? (Check one) <input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit. <input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): NGS – Fly Ash Transport Blower Discharge			
4. Emissions Unit Identification Number: ID: 036 <span style="float: right;"> <input type="checkbox"/> No ID  <input type="checkbox"/> ID Unknown                 </span>			
5. Emissions Unit Status Code: A	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? [ ]
9. Emissions Unit Comment: (Limit to 500 Characters) This emission unit consists of four fly ash transport blower discharge exhausts with each discharge exhaust passed through a baghouse. This emissions unit is designated as NGS – Waste Bins in construction permit PSD-FL-265 and was projected to consist of two emission points rather than four. JEA requests that this emissions unit be designated NGS – Fly Ash Transport Blower Discharge.			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Particulate matter emissions from each of the four fly ash transport systems are controlled by use of baghouse dust collectors. Therefore, this emissions unit consists of four emission points.

2. Control Device or Method Code(s): 018

**Emissions Unit Details**

1. Package Unit: Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information: Not applicable	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr tons/day
3. Maximum Process or Throughput Rate:	
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
	24 hours/day                      7 days/week
	52 weeks/year                      8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): The actual throughput rate for this emissions unit is a function of the fuel ash content and other operating parameters, rather than the sizing of the equipment.	

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU036		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Particulate matter emissions from each of the four fly ash transport systems are controlled by use of baghouse dust collectors. Therefore, this emissions unit consists of four emission points.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: H	6. Stack Height: 8 (approx) feet	7. Exit Diameter: NA feet	
8. Exit Temperature: 150°F (approx)	9. Actual Volumetric Flow Rate: NA acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 446.700                      North (km): 3,365.100			
14. Emission Point Comment (limit to 200 characters):			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment  1  of  2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Fly ash transport serving CFB Boiler No. 2 (EU026) and CFB Boiler No. 1 (EU027)		
2. Source Classification Code (SCC): 30210205	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 (limit to 200 characters): The actual hourly and annual process rates are a function of the fuel ash content and other operating parameters.		

**Segment Description and Rate:** Segment \_\_\_\_\_ of \_\_\_\_\_

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):		
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 (limit to 200 characters):		









**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: Attachment C <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: Attachment N <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input checked="" type="checkbox"/> Attached, Document ID: Attachment P <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:          

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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> 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).</p> <p><input checked="" type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):</p> <p>NGS – Fly Ash Silo Bin Vents</p>			
<p>4. Emissions Unit Identification Number:</p> <p>ID: 037</p>		<p><input type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>	
<p>5. Emissions Unit Status Code:</p> <p>A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code:</p> <p>49</p>	<p>8. Acid Rain Unit?</p> <p><input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters) Both of the two fly ash silos are equipped with baghouse dust collectors for control of particulate matter emissions and each dust collector has it's own exhaust. Therefore, this emissions unit consists of two emission points.</p>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Particulate matter emissions from each of the two separate fly ash silos and associated transfer equipment are controlled with a baghouse independent to that fly ash silo and each baghouse vents to it's own stack. Therefore, this emissions unit consists of two emission points.

2. Control Device or Method Code(s): 018

**Emissions Unit Details**

1. Package Unit:	
Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information: Not applicable	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): The actual throughput rate for this emissions unit is a function of the fuel ash content and other operating parameters, rather than the sizing of the equipment.		



**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

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

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Fly ash storage silos serving CFB Boiler No. 2 (EU026) and CFB Boiler No. 1 (EU027)		
2. Source Classification Code (SCC): 30501222	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 (limit to 200 characters): The given throughputs are for both fly ash storage silos combined. While this segment is for fly ash transfer & storage in silos, tons handled rather than tons stored is given in the SCC units field, because emissions are more a function of tons handled than tons stored. The throughput rate is dependent on fuel ash content and operating parameters rather than the fly ash storage system design.		

**Segment Description and Rate:** Segment \_\_\_\_\_ of \_\_\_\_\_

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):		
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 (limit to 200 characters):		







**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: Attachment C <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: Attachment N <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input checked="" type="checkbox"/> Attached, Document ID: Attachment P <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:          

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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> 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).</p> <p><input checked="" type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): NGS – Bed Ash Silo Bin Vents</p>			
<p>4. Emissions Unit Identification Number: ID: 038</p>		<p><input type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>	
<p>5. Emissions Unit Status Code: A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code: 49</p>	<p>8. Acid Rain Unit? <input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters) Both of the two bed ash silos are equipped with a baghouse dust collector for control of particulate matter emissions and each dust collector has it's own exhaust. Therefore, this emissions unit consists of two emission points.</p>			



**Emissions Unit Control Equipment**

<p>1. Control Equipment/Method Description (Limit to 200 characters per device or method):                  Particulate matter emissions from each of the two separate bed ash storage silos and associated transfer equipment are controlled with a baghouse exclusive to that bed ash silo and each baghouse vents to it's own stack. Therefore, this emissions unit consists of two emission points.</p>
<p>2. Control Device or Method Code(s): 018</p>

**Emissions Unit Details**

1. Package Unit:	
Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information: Not applicable	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): The actual throughput rate is a function of the fuel ash content and other operating parameters, rather than the sizing of the equipment.		

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU038		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Particulate matter emissions from each of two separate bed ash storage silos are controlled with a baghouse exclusive to that bed ash silo and each baghouse vents to it's own stack. Therefore, this emissions unit consists of two emission points.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: H	6. Stack Height: 95 (approx) feet	7. Exit Diameter: feet	
8. Exit Temperature: 150°F (approx)	9. Actual Volumetric Flow Rate: 2,500 (approx) acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 446.700                      North (km): 3,365.200			
14. Emission Point Comment (limit to 200 characters):			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

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

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Bed ash storage silos serving CFB Boiler No. 2 (EU026) and CFB Boiler No. 1 (EU027)		
2. Source Classification Code (SCC): 30501222	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 (limit to 200 characters): While this segment is for bed ash transfer & storage in silos, tons handled rather than tons stored is given in the SCC units field, because emissions are more a function of tons handled than tons stored. The throughput rate is dependent on ash content and other operating parameters rather than the bed ash storage system design.		

**Segment Description and Rate:** Segment   of

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	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 (limit to 200 characters):		

**F. EMISSIONS UNIT POLLUTANTS**  
**(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
 (Regulated Emissions Units -  
 Emissions-Limited and Preconstruction Review Pollutants Only)

**Potential/Fugitive Emissions**

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: <div style="text-align: center; margin-top: 5px;">                 _____ lb/hour          _____ tons/year             </div>	4. Synthetically Limited? [   ]
5. Range of Estimated Fugitive Emissions: [   ] 1          [   ] 2          [   ] 3          _____ to _____ tons/year	
6. Emission Factor: Reference: _____	7. Emissions Method Code: _____
8. Calculation of Emissions (limit to 600 characters):     	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):    	

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: <div style="text-align: center; margin-top: 5px;">                 _____ lb/hour          _____ tons/year             </div>
5. Method of Compliance (limit to 60 characters):   	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):    	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE 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. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Using Method 9, a 30 minute initial compliance test was conducted to show compliance with the 5 percent opacity limit and a 30 minute renewal visible emissions test will be conducted once every five years.	
5. Visible Emissions Comment (limit to 200 characters): The visible emissions standard along with compliance determination requirements are included in construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units 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 (limit to 200 characters):	



**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

<p>1. Process Flow Diagram  <input checked="" type="checkbox"/> Attached, Document ID: Attachment A <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>2. Fuel Analysis or Specification  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>3. Detailed Description of Control Equipment  <input checked="" type="checkbox"/> Attached, Document ID: Attachment N <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>4. Description of Stack Sampling Facilities  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>5. Compliance Test Report  <input checked="" type="checkbox"/> Attached, Document ID: Attachment P  <input type="checkbox"/> Previously submitted, Date: _____  <input type="checkbox"/> Not Applicable</p>
<p>6. Procedures for Startup and Shutdown  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>7. Operation and Maintenance Plan  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>8. Supplemental Information for Construction Permit Application  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>9. Other Information Required by Rule or Statute  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>10. Supplemental Requirements Comment:</p>          

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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> 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).</p> <p><input checked="" type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): NGS – AQCS Pebble Lime Silo Bin Vent</p>			
<p>4. Emissions Unit Identification Number: <span style="float: right;"><input type="checkbox"/> No ID</span> ID: 042 <span style="float: right;"><input type="checkbox"/> ID Unknown</span></p>			
<p>5. Emissions Unit Status Code: A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code: 49</p>	<p>8. Acid Rain Unit? <input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters): Emissions Unit No. 042 consists of one pebble lime storage silo.</p>			

**Emissions Unit Control Equipment**

<p>1. Control Equipment/Method Description (Limit to 200 characters per device or method):                  Particulate matter emissions from the pebble lime storage silo are controlled with a baghouse which vents to a single stack.</p>
<p>2. Control Device or Method Code(s): 018</p>

**Emissions Unit Details**

<p>1. Package Unit:                  Manufacturer: _____ Model Number: _____</p>
<p>2. Generator Nameplate Rating: _____ MW</p>
<p>3. Incinerator Information: Not applicable</p> <p style="text-align: right;">Dwell Temperature: _____ °F</p> <p style="text-align: right;">Dwell Time: _____ seconds</p> <p style="text-align: right;">Incinerator Afterburner Temperature: _____ °F</p>

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	The pebble lime silo loading system is designed to operate at 20 tons per hour.	

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU042		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 70 (approx) feet	7. Exit Diameter: feet	
8. Exit Temperature: 80°F (approx)	9. Actual Volumetric Flow Rate: 1,500 (approx) acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 446.700                      North (km): 3,365.200			
14. Emission Point Comment (limit to 200 characters):			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

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

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Pebble lime storage		
2. Source Classification Code (SCC): 30501222	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 (limit to 200 characters): While this segment is for pebble lime storage, tons handled rather than tons stored is given in the SCC units field, because emissions are more a function of tons handled than tons stored.		

**Segment Description and Rate:** Segment \_\_\_\_\_ of \_\_\_\_\_

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):		
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 (limit to 200 characters):		





**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		4. Synthetically Limited? [ ] tons/year	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions \_\_\_\_\_ of \_\_\_\_\_

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

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

1. Visible Emissions Subtype: VE05	2. Basis for Allowable Opacity: [ X ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Using Method 9, a 30 minute initial compliance test was conducted to show compliance with the visible emissions limit and a 30 minute renewal visible emissions test will be conducted once every five years.	
5. Visible Emissions Comment (limit to 200 characters): The visible emissions standard along with compliance determination requirements are included in construction permit PSD-FL-265.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

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

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: Attachment C <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: Attachment N <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input checked="" type="checkbox"/> Attached, Document ID: Attachment P <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:          

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

11. Alternative Methods of Operation [ ] Attached, Document ID: _____ [ X ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ X ] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ X ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ X ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ [ X ] Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> 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).</p> <p><input checked="" type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): NGS – Fly Ash Slurry Mix System Vents.</p>			
<p>4. Emissions Unit Identification Number: ID: 051</p>		<p><input type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>	
<p>5. Emissions Unit Status Code: A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code: 49</p>	<p>8. Acid Rain Unit? <input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters): This emission Unit consists of two (2) fly ash slurry mix system vents. Each fly ash slurry mix system services fly ash in one of the two fly ash silos and is located in the fly ash silo structures. Emissions from the Fly Ash Slurry Mix System Vents are controlled by a wet scrubber followed by a baghouse. This emissions unit is designated as NGS – Fly Ash Silo Pre-Mixers in construction permit PSD-FL-265A. JEA requests that this emissions unit be designated NGS – Fly Ash Slurry Mix System Vent.</p>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Particulate matter from the fly ash slurry mix system are controlled by a wet scrubber followed by a baghouse.

2. Control Device or Method Code(s): 013 and 018

**Emissions Unit Details**

1. Package Unit: Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information: Not applicable	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		



**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU051		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Two (2) fly ash slurry mix system vents.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: H	6. Stack Height: NA feet	7. Exit Diameter: NA feet	
8. Exit Temperature: NA °F	9. Actual Volumetric Flow Rate: NA acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17 East (km): 446.700 North (km): 3,365.100			
14. Emission Point Comment (limit to 200 characters):			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

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

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Fly ash silo mix systems		
2. Source Classification Code (SCC): 30501222		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 (limit to 200 characters):		

**Segment Description and Rate:** Segment   of

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):		
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 (limit to 200 characters):		



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions   of

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			



**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

<p>1. Process Flow Diagram  <input checked="" type="checkbox"/> Attached, Document ID: Attachment C [ ] Not Applicable [ ] Waiver Requested</p>
<p>2. Fuel Analysis or Specification  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [ ] Waiver Requested</p>
<p>3. Detailed Description of Control Equipment  <input checked="" type="checkbox"/> Attached, Document ID: Attachment N [ ] Not Applicable [ ] Waiver Requested</p>
<p>4. Description of Stack Sampling Facilities  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [ ] Waiver Requested</p>
<p>5. Compliance Test Report  <input checked="" type="checkbox"/> Attached, Document ID: Attachment P  <input type="checkbox"/> Previously submitted, Date: _____  <input type="checkbox"/> Not Applicable</p>
<p>6. Procedures for Startup and Shutdown  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [ ] Waiver Requested</p>
<p>7. Operation and Maintenance Plan  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [ ] Waiver Requested</p>
<p>8. Supplemental Information for Construction Permit Application  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>9. Other Information Required by Rule or Statute  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>10. Supplemental Requirements Comment:</p>          

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

11. Alternative Methods of Operation [ ] Attached, Document ID: _____ [ X ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ X ] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ X ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ X ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ [ X ] Not Applicable



**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> 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).</p> <p><input checked="" type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): NGS – Bed Ash Slurry Mix System Vents</p>			
<p>4. Emissions Unit Identification Number: <span style="float: right;"><input type="checkbox"/> No ID</span> ID: 052 <span style="float: right;"><input type="checkbox"/> ID Unknown</span></p>			
<p>5. Emissions Unit Status Code: A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code: 49</p>	<p>8. Acid Rain Unit? <input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters): This emission Unit consists of two (2) bed ash slurry mix system vents. Each slurry mix system services bed ash from one of the two bed ash silos and are located in the bed ash silo structures. Emissions from the Bed Ash Slurry Mix System Vents are controlled by a wet scrubber followed by a baghouse. This emissions unit is designated as NGS – Bed Ash Silo Mixers in construction permit PSD-FL-265A. JEA requests that this emissions unit be designated NGS – Bed Ash Slurry Mix System Vent.</p>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Particulate matter from the bed ash slurry mix systems are controlled by a wet scrubber followed by a baghouse.

2. Control Device or Method Code(s): 013 and 018

**Emissions Unit Details**

1. Package Unit:	
Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information: Not applicable	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU052		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Two (2) bed ash slurry mix systems vents			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
4. Discharge Type Code: H	6. Stack Height: NA feet	7. Exit Diameter: NA feet	
8. Exit Temperature: NA °F	9. Actual Volumetric Flow Rate: NA acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 446.700                      North (km): 3,365.100			
14. Emission Point Comment (limit to 200 characters):			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

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

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Bed ash slurry mix systems		
2. Source Classification Code (SCC): 30501222		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 (limit to 200 characters):		

**Segment Description and Rate:** Segment   of

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):		
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 (limit to 200 characters):		







**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

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

1. Visible Emissions Subtype: VE05	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: 5      %      Exceptional Conditions:      % Maximum Period of Excess Opacity Allowed:      min/hour	
4. Method of Compliance: Using Method 9, an initial compliance test was conducted to show compliance with the visible emissions limit and a renewal 30-minute visible emissions test will be conducted once every five years.	
5. Visible Emissions Comment (limit to 200 characters): The visible emissions standard along with compliance determination requirements are included in construction permit PSD-FL-265A.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units 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 (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: Attachment C <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: Attachment N <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input checked="" type="checkbox"/> Attached, Document ID: Attachment P <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:

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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> 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).</p> <p><input checked="" type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):</p> <p>NGS – Bed Ash Surge Hopper Bin Vents.</p>			
<p>4. Emissions Unit Identification Number:</p> <p>ID: 053</p>		<p><input type="checkbox"/> No ID</p> <p><input type="checkbox"/> ID Unknown</p>	
<p>5. Emissions Unit Status Code:</p> <p>A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code:</p> <p>49</p>	<p>8. Acid Rain Unit?</p> <p><input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters)</p> <p>This emissions unit consists of two (2) bed ash surge hoppers, with each surge hopper servicing a CFB boiler. Therefore, this emissions unit includes two emission points.</p>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Each bed ash surge hopper is equipped with a baghouse dust collector for control of particulate matter. Each dust collector vents to it's own stack.

2. Control Device or Method Code(s): 018

**Emissions Unit Details**

1. Package Unit:		
Manufacturer:		Model Number:
2. Generator Nameplate Rating:		MW
3. Incinerator Information: Not applicable		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	<p>The actual bed ash throughput rates are a function of the fuel ash content and other operating parameters rather than the design of the bed ash surge hoppers.</p>	

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU053		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: Two (2) bed ash surge hopper bins, each equipped with its' own baghouse control and vent.			
5. Discharge Type Code: V	6. Stack Height: 95 (approx) feet	7. Exit Diameter: feet	
8. Exit Temperature: 150 (approx) °F	9. Actual Volumetric Flow Rate: NA acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 446.700                      North (km): 3,365.100			
14. Emission Point Comment (limit to 200 characters):			



**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

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

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Bed ash surge hopper bins for EU026 and EU027		
2. Source Classification Code (SCC): 30501222	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 (limit to 200 characters):		

**Segment Description and Rate:** Segment \_\_\_\_\_ of \_\_\_\_\_

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):		
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 (limit to 200 characters):		



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: <div style="display: flex; justify-content: space-between;"><span>lb/hour</span><span>tons/year</span></div>	4. Synthetically Limited? [ <input type="checkbox"/> ]
5. Range of Estimated Fugitive Emissions: [ <input type="checkbox"/> ] 1 [ <input type="checkbox"/> ] 2 [ <input type="checkbox"/> ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

**Allowable Emissions** Allowable Emissions   1   of   1  

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: <div style="display: flex; justify-content: space-between;"><span>lb/hour</span><span>tons/year</span></div>
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

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

1. Visible Emissions Subtype: VE05	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: 5      %      Exceptional Conditions:      % Maximum Period of Excess Opacity Allowed:      min/hour	
4. Method of Compliance: Using Method 9, an initial compliance test was conducted to show compliance with the visible emissions limit and a renewal visible emissions test will be conducted once every five years.	
5. Visible Emissions Comment (limit to 200 characters): The visible emissions standard along with compliance determination requirements are included in construction permit PSD-FL-265A.	

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units 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 (limit to 200 characters):	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

<p>1. Process Flow Diagram  <input checked="" type="checkbox"/> Attached, Document ID: Attachment C [   ] Not Applicable [   ] Waiver Requested</p>
<p>2. Fuel Analysis or Specification  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [   ] Waiver Requested</p>
<p>3. Detailed Description of Control Equipment  <input checked="" type="checkbox"/> Attached, Document ID: Attachment N [   ] Not Applicable [   ] Waiver Requested</p>
<p>4. Description of Stack Sampling Facilities  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [   ] Waiver Requested</p>
<p>5. Compliance Test Report  <input checked="" type="checkbox"/> Attached, Document ID: Attachment P  <input type="checkbox"/> Previously submitted, Date: _____  <input type="checkbox"/> Not Applicable</p>
<p>6. Procedures for Startup and Shutdown  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [   ] Waiver Requested</p>
<p>7. Operation and Maintenance Plan  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable [   ] Waiver Requested</p>
<p>8. Supplemental Information for Construction Permit Application  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>9. Other Information Required by Rule or Statute  <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>10. Supplemental Requirements Comment:</p>          

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

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> 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).</p> <p><input checked="" type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): NGS – Limestone Feed System Vent Filter Exhaust</p>			
<p>4. Emissions Unit Identification Number: ID: 054</p>		<p><input checked="" type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>	
<p>5. Emissions Unit Status Code: A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code: 49</p>	<p>8. Acid Rain Unit? <input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters) The emissions unit consists of a vent filter on the limestone feed system prior to injection of limestone into the CFBs. There are three limestone feed system vent filter exhausts associated with each CFB. Therefore, this emissions unit consists of six emission points.</p>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):  
 Particulate matter emissions from each of six limestone feed system vents are controlled with a fabric filter with each fabric filter venting to it's own stack.

2. Control Device or Method Code(s): 018

**Emissions Unit Details**

1. Package Unit: Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information: Not applicable	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F



**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	See note below	
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	Actual limestone feed rates will be a function of CFB fuel sulfur content and other CFB operating conditions.	

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<p><b>Emissions unit applicable regulations hereby incorporates by reference the Title V core list of applicable regulations that all Title V sources are presumptively subject.</b></p>	
<p><b>Applicable regulations specified in construction permit PSD-FL-265 are hereby incorporated by reference.</b></p>	

**D. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? EU054		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): There are six emission points associated with this emissions unit. The emission points are located amongst the CFB system equipment and a Method 9 will likely not be possible.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: NA	6. Stack Height: NA feet	7. Exit Diameter: NA feet	
8. Exit Temperature: 77°F (approx)	9. Actual Volumetric Flow Rate: NA 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 Comment (limit to 200 characters):			

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

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

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Limestone feed system vent		
2. Source Classification Code (SCC): 30501099		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 (limit to 200 characters)		

**Segment Description and Rate:** Segment   of

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):		
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 (limit to 200 characters):		



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code:	
8. Calculation of Emissions (limit to 600 characters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions   of

1. Basis for Allowable Emissions Code:		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance (limit to 60 characters):			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			



**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: Attachment C <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: Attachment N <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input checked="" type="checkbox"/> Attached, Document ID: Attachment P <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:

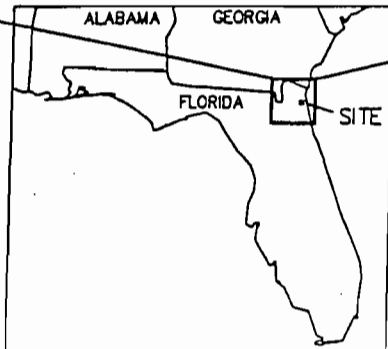
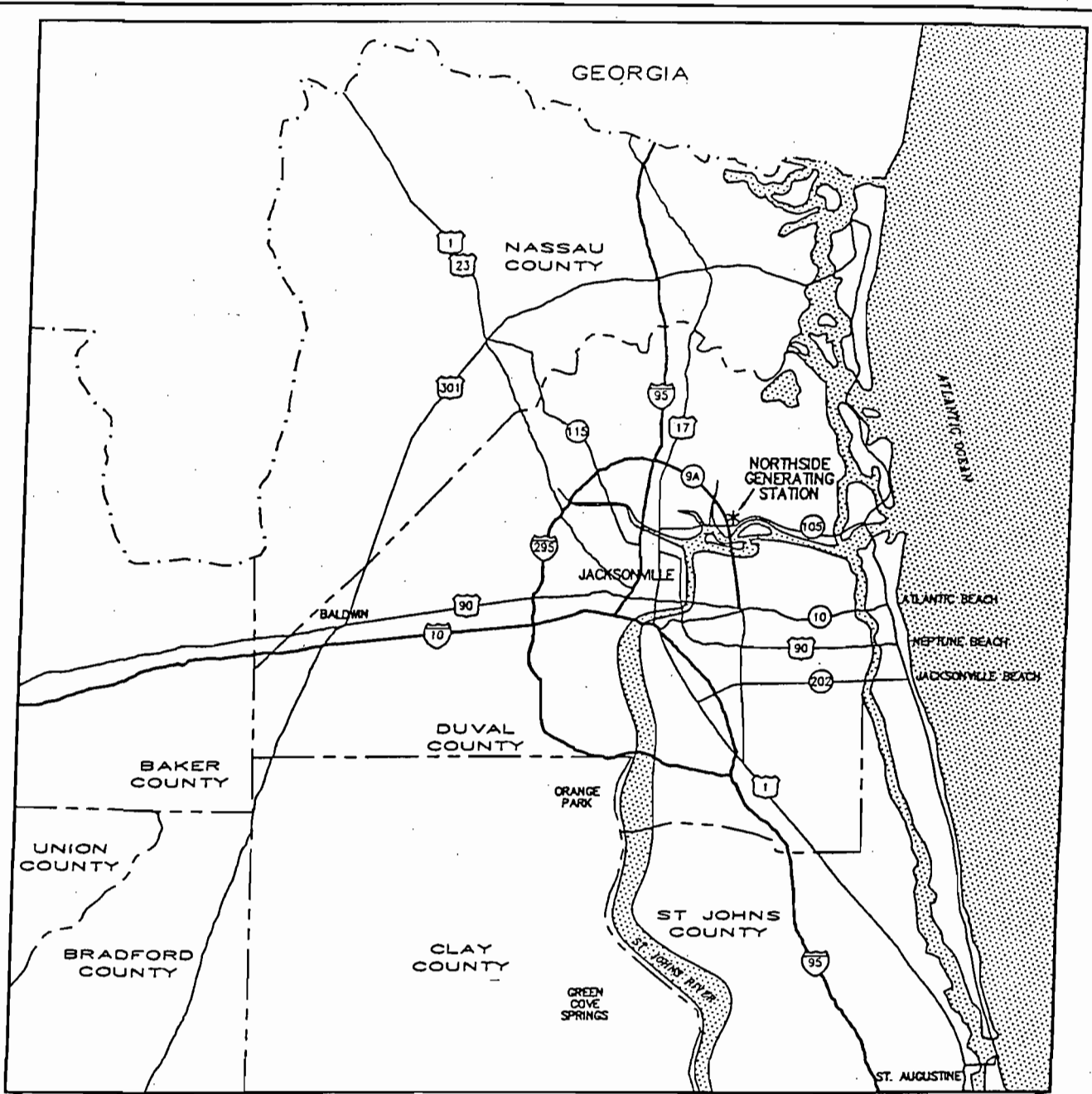


**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part – Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

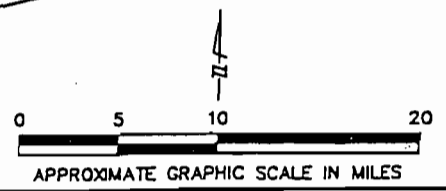
**Attachment A**

**Area Map Showing Facility Location**



**LEGEND**

- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY



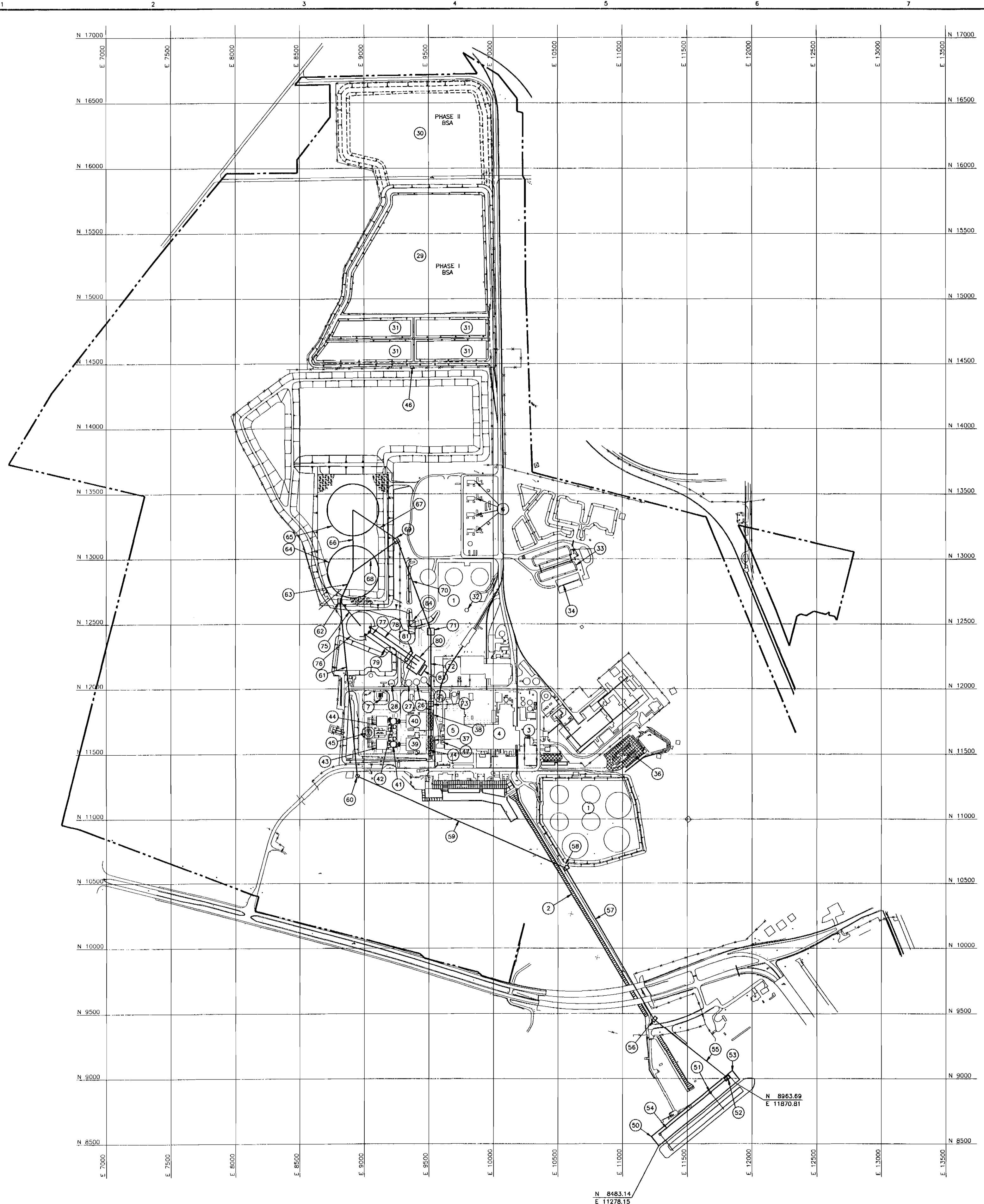
**JACKSONVILLE ELECTRIC AUTHORITY**  
 NORTHSIDE GENERATING STATION  
 CFB REPOWERING / UNITS 1 & 2  
 REGIONAL MAP

SCALE AS SHOWN	PREPARED	REGIONAL DWG
DATE	CHECKED	FIGURE NO.
	APPROVED	1-1



**Attachment B**

**Facility Plot Plan**



**GENERAL NOTES**

1. PLANT GRID COORDINATE N 13000, E 7500 = STATE PLANE COORDINATE N 2212771.15, E 4793331.20.

0310045

**LEGEND**

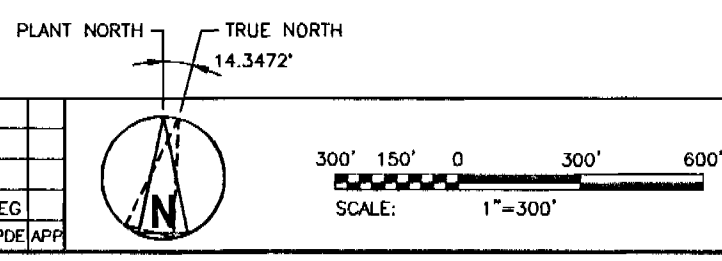
--- EXISTING FENCE  
 - - - EXISTING RAILROAD  
 - - - PROPERTY LINE

**FACILITY LEGEND**

1.	FUEL OIL TANK FARM
2.	EXISTING INTAKE STRUCTURE
3.	EXISTING UNIT 1
4.	EXISTING UNIT 2
5.	EXISTING UNIT 3
6.	EXISTING GAS TURBINE
7.	EXISTING GAS METERING STATION
25.	BED ASH SILO 1 (EU038)
26.	BED ASH SILO 2 (EU038)
27.	FLY ASH SILO 2 (EU037)
28.	FLY ASH SILO 1 (EU037)
29.	BY-PRODUCT STORAGE AREA - CELL I
30.	BY-PRODUCT STORAGE AREA - CELL II (FUTURE)
31.	BY-PRODUCT CONTACT STORMWATER AND LEACHATE STORAGE POND
32.	REUSE WATER TANK
33.	SETTLING PONDS - CWS
34.	CHEMICAL WASTE TREATMENT SYSTEM
36.	PERMANENT PARKING LOT
37.	UNIT 1 INPLANT FUEL SILOS (EU031)
38.	UNIT 2 INPLANT FUEL SILOS (EU031)
39.	UNIT 1 BOILER (EU027)
40.	UNIT 2 BOILER (EU026)
41.	UNIT 1 SCRUBBER
42.	UNIT 2 SCRUBBER
43.	UNIT 1 BAGHOUSE
44.	UNIT 2 BAGHOUSE
45.	CHIMNEY
46.	BY-PRODUCT STORAGE AREA ELECTRICAL BUILDING
47.	FIRE WATER BOOSTER PUMP BUILDING
50.	NORTHSIDE DOCK (EU028A)
51.	TRAVELING VESSEL UNLOADER (EU028A)
52.	TRANSFER BUILDING 1 (EU028C)
53.	FUEL OIL UNLOADING STATION
54.	CONVEYOR BC-1
55.	CONVEYOR BC-2
56.	TRANSFER BUILDING 2 (EU028C)
57.	CONVEYOR BC-3
58.	TRANSFER BUILDING 3 (EU028B)
59.	CONVEYOR BC-4
60.	TRANSFER BUILDING 4 (EU028C)
61.	CONVEYOR BC-5
62.	TRANSFER BUILDING 5 (EU028T)
63.	CONVEYOR BC-6
64.	FUEL STORAGE BUILDING A (EU028H)
65.	FUEL STORAGE BUILDING B (EU028H)
66.	CONVEYOR BC-7
67.	CONVEYOR BC-8
68.	CONVEYOR BC-9
69.	TRANSFER BUILDING 6 (EU028U)
70.	CONVEYOR BC-10 & BC-11
71.	CRUSHER BUILDING (EU029)
72.	CONVEYOR BC-12 & BC-13
73.	PLANT TRANSFER BUILDING
74.	CONVEYOR BC-14 & BC-15
75.	CONVEYOR L-1
76.	LIMESTONE STORAGE PILE (EU028P)
77.	CONVEYOR L-2 (EU028)
78.	CONVEYOR L-4 (EU028)
79.	CONVEYOR L-3 (EU028)
80.	LIMESTONE PREPARATION BUILDING (EU033&034)
81.	MATERIAL HANDLING CONTROL & ELECTRICAL EQUIPMENT BUILDING
83.	ASH BLOWER/ELECTRICAL EQUIPMENT BUILDING
84.	FUEL HANDLING MAINTENANCE BUILDING

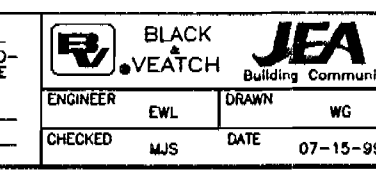
04/30/14 ACAD-15.05  
 07/24/02 E: 14.32.35

0	07/26/02	ISSUED FOR TITLE V OPERATING PERMIT	DCI	EG
NO	DATE	REVISIONS AND RECORD OF ISSUE	DRN	DES



I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A duly REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA.

SIGNED \_\_\_\_\_ DATE \_\_\_\_\_ REG. NO. \_\_\_\_\_



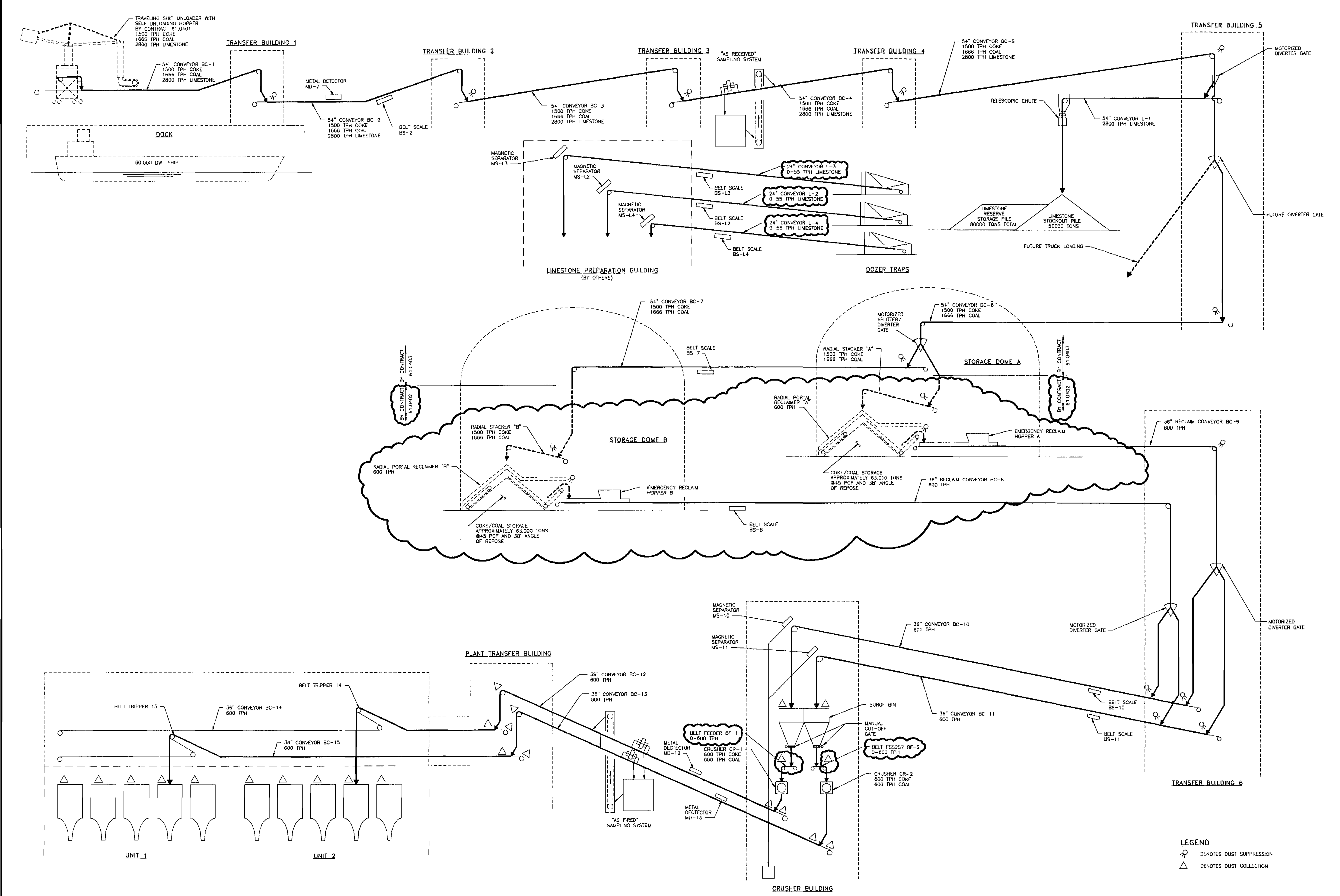
JEA EQUIPMENT NUMBER NOO-MA	JEA DRAWING NUMBER
JEA PROJECT NORTHSIDE UNITS 1 & 2 REPOWERING PROJECT	PROJECT DRAWING NUMBER 62713-CMA -S1010
SITE ARRANGEMENT EMISSION UNIT LOCATIONS	REV 0

**Attachment C**

**Process Flow Diagrams**







**LEGEND**  
 ☉ DENOTES DUST SUPPRESSION  
 △ DENOTES DUST COLLECTION

APPROVED FOR CONSTRUCTION

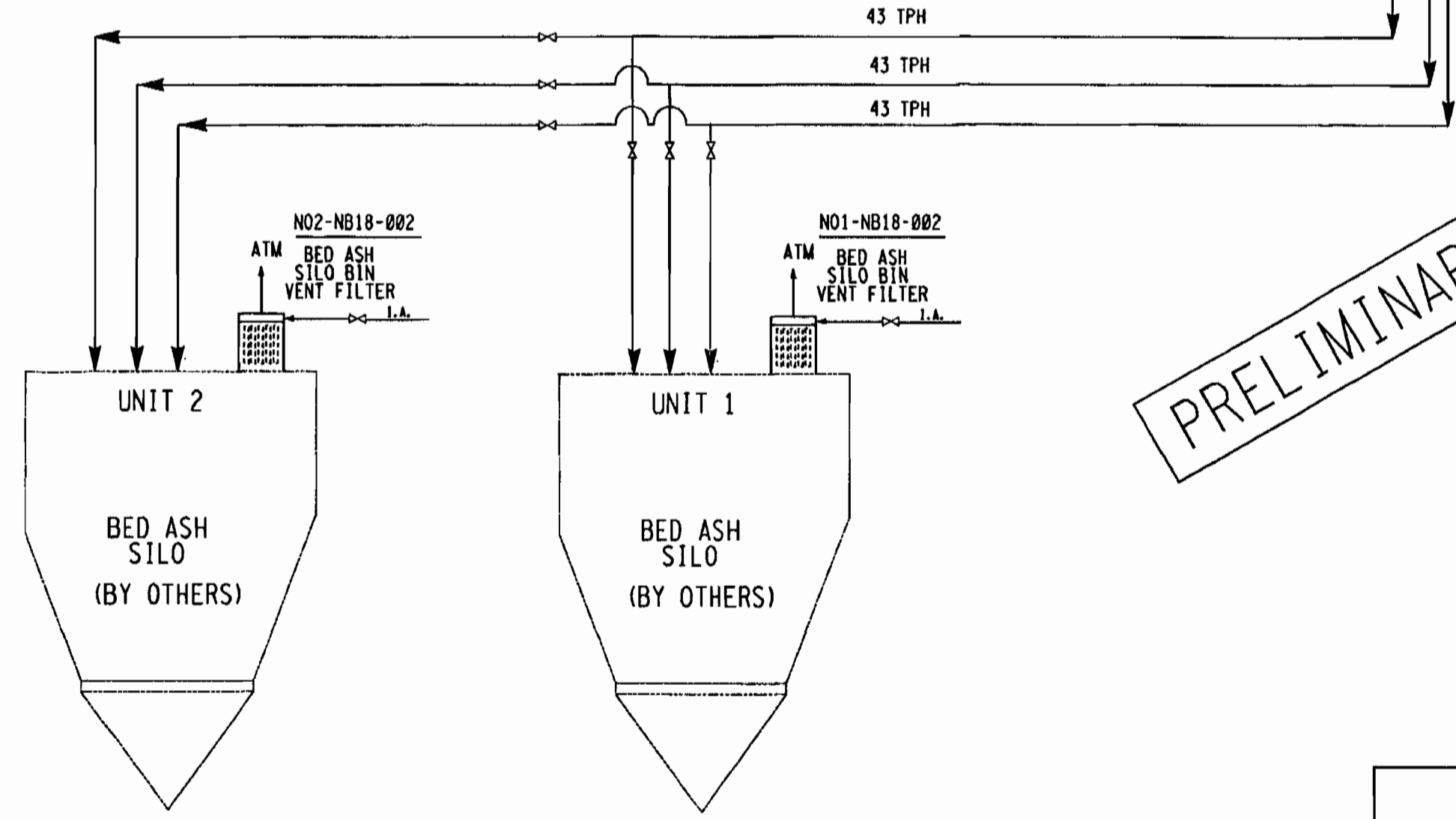
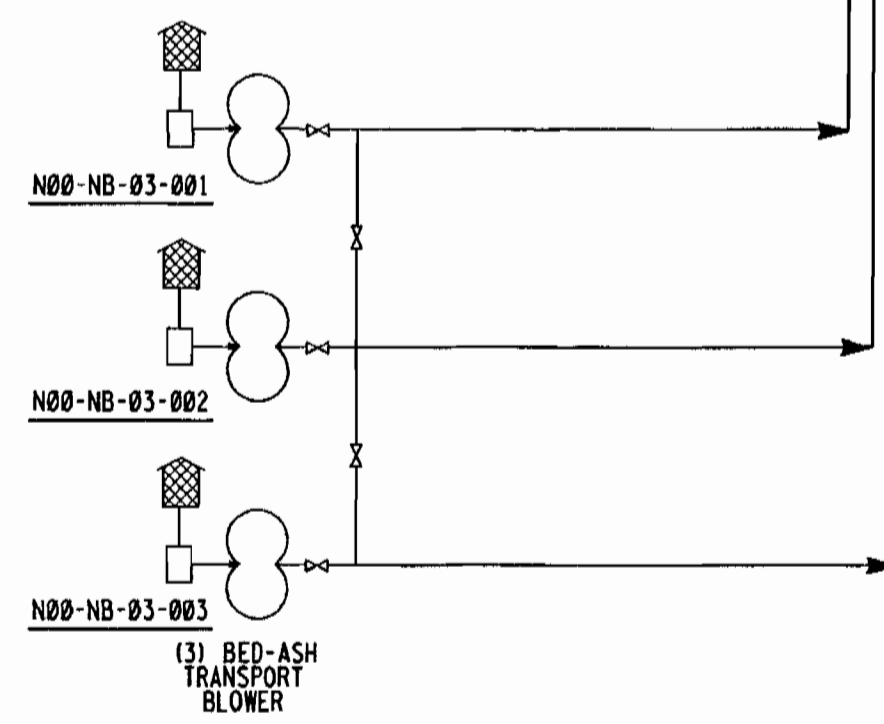
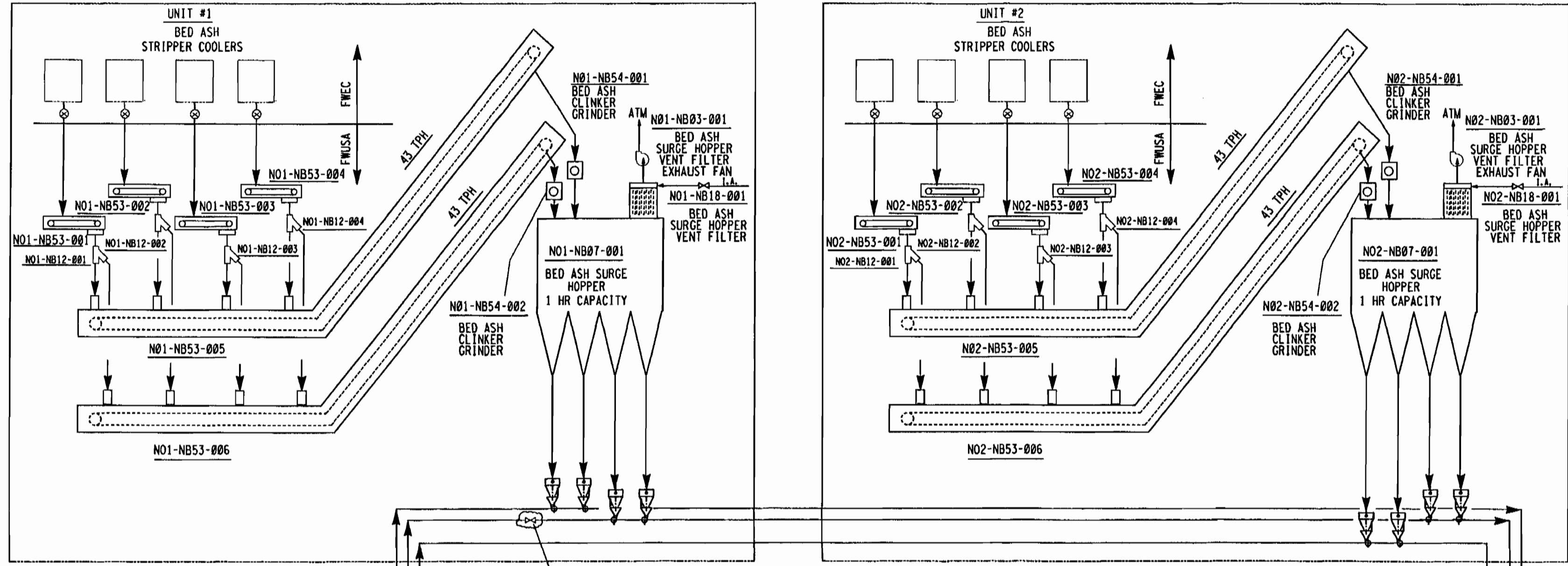
2/7/2000/STW/ACME 14.01h (Reference Lock)  
 4/15/2007/ET/1/ST  
 3/27/2009/09-0333

JEA EQUIPMENT NUMBER NOO-FH		JEA DRAWING NUMBER	
PROJECT NORTHSIDE UNITS 1 & 2 REPOWERING PROJECT		DRAWING NUMBER 62713-CFH-S2010	
FUEL HANDLING-FLOW DIAGRAM		CODE	REV 3
1 11-12-1999 GENERAL REVISIONS 2 09-20-1999 APPROVED FOR CONSTRUCTION 1 07-01-1999 GENERAL REVISIONS 0 05-28-1999 INITIAL ISSUE		ENGINEER JWD CHECKED DEM DATE 09-29-99	DRAWN JWS DATE 09-29-99
I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. SIGNED RICHARD L. WARD DATE 9/29/99 REG. NO. 33384		BLACK & VEATCH JEA Building Community	

IDL30124 06-AUG-2002 14:25:51

GENERAL NOTES:  
1. FOR GENERAL ARRANGEMENT, SEE DRAWING 4600-1-36-105.

4



PRELIMINARY

REV NO	DATE	DESCRIPTION	REV BY	APP BY
C	11/6/98	ISSUED FOR INDUSTRY	ESS	FL
B	10/14/98	GENERAL REVISION	ESS	FL
A	8/24/98	ISSUED FOR COMMENTS	ESS	FL

**JEA**  
JACKSONVILLE, FLORIDA

Northside Units 1 & 2 Repowering Project

EQUIPMENT No. 1: NB8-NB

D & V DRAWING No. 1: J062713 G2.1801.04-C0003

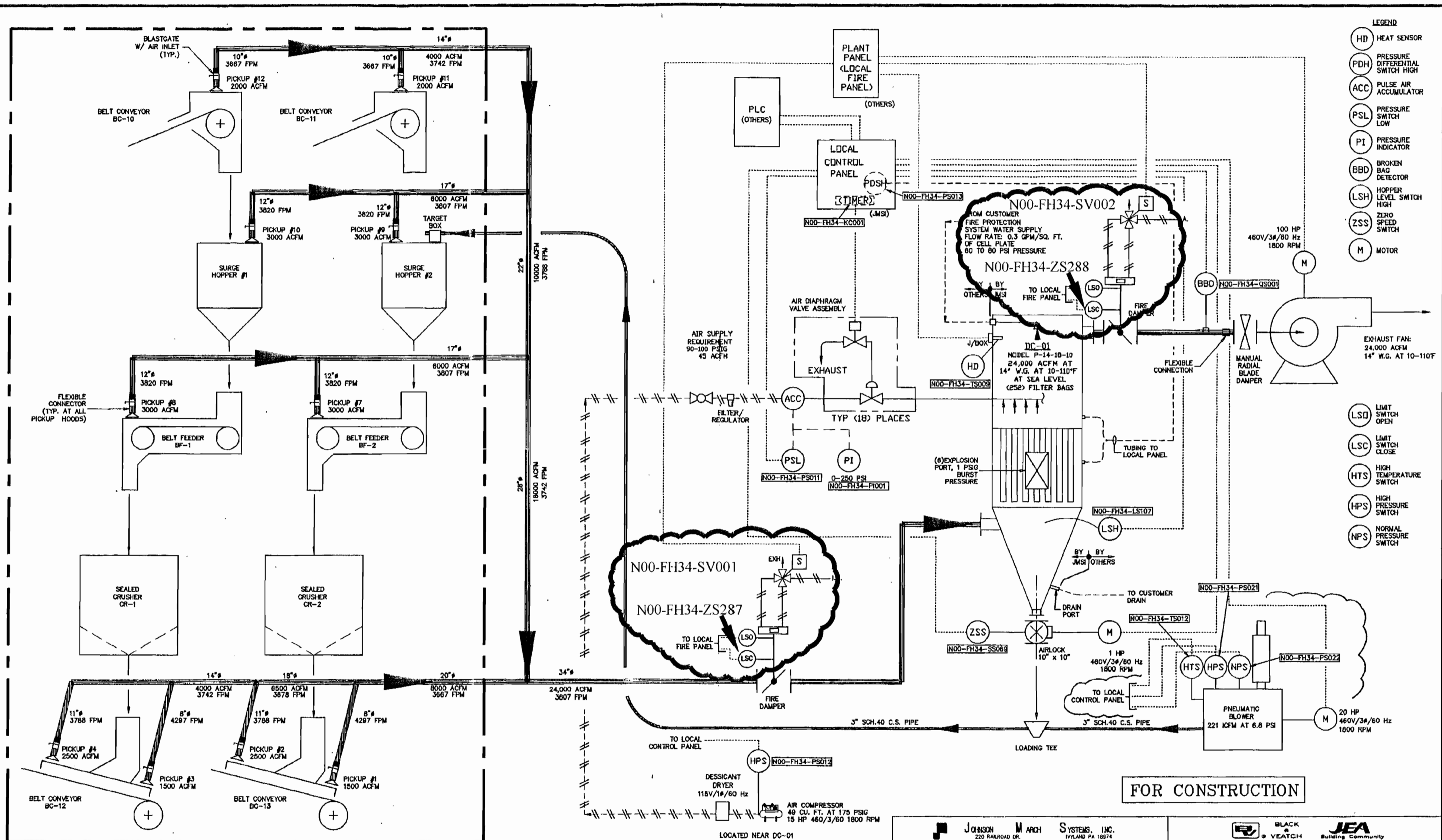
PROCESS-FLOW-DIAGRAM  
...BED ASH HANDLING SYSTEM

THIS DRAWING IS THE PROPERTY OF THE FOSTER WHEELER USA CORPORATION. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF FOSTER WHEELER USA CORPORATION IS STRICTLY PROHIBITED. THIS DRAWING IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIFICALLY DRAWN. THE OPERATOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THIS DRAWING.			
DRAWN BY: AAT	SCALE: NONE	REV:	
CHECKED BY: FL	DATE: 8/24/98	4600-1-50-203	C
APPROVED BY:			

13-04600

THIS DRAWING SUPERSEDES THIS DRAWING SUPERSEDED BY

IDL30124 06-AUG-2002 14:15:05



- LEGEND**
- (HD) HEAT SENSOR
  - (PDH) PRESSURE DIFFERENTIAL SWITCH HIGH
  - (ACC) PULSE AIR ACCUMULATOR
  - (PSL) PRESSURE SWITCH LOW
  - (PI) PRESSURE INDICATOR
  - (BBD) BROKEN BAG DETECTOR
  - (LSH) HOPPER LEVEL SWITCH HIGH
  - (ZSS) ZERO SPEED SWITCH
  - (M) MOTOR
  - (LSO) LIMIT SWITCH OPEN
  - (LSC) LIMIT SWITCH CLOSE
  - (HTS) HIGH TEMPERATURE SWITCH
  - (HPS) HIGH PRESSURE SWITCH
  - (NPS) NORMAL PRESSURE SWITCH

**FOR CONSTRUCTION**

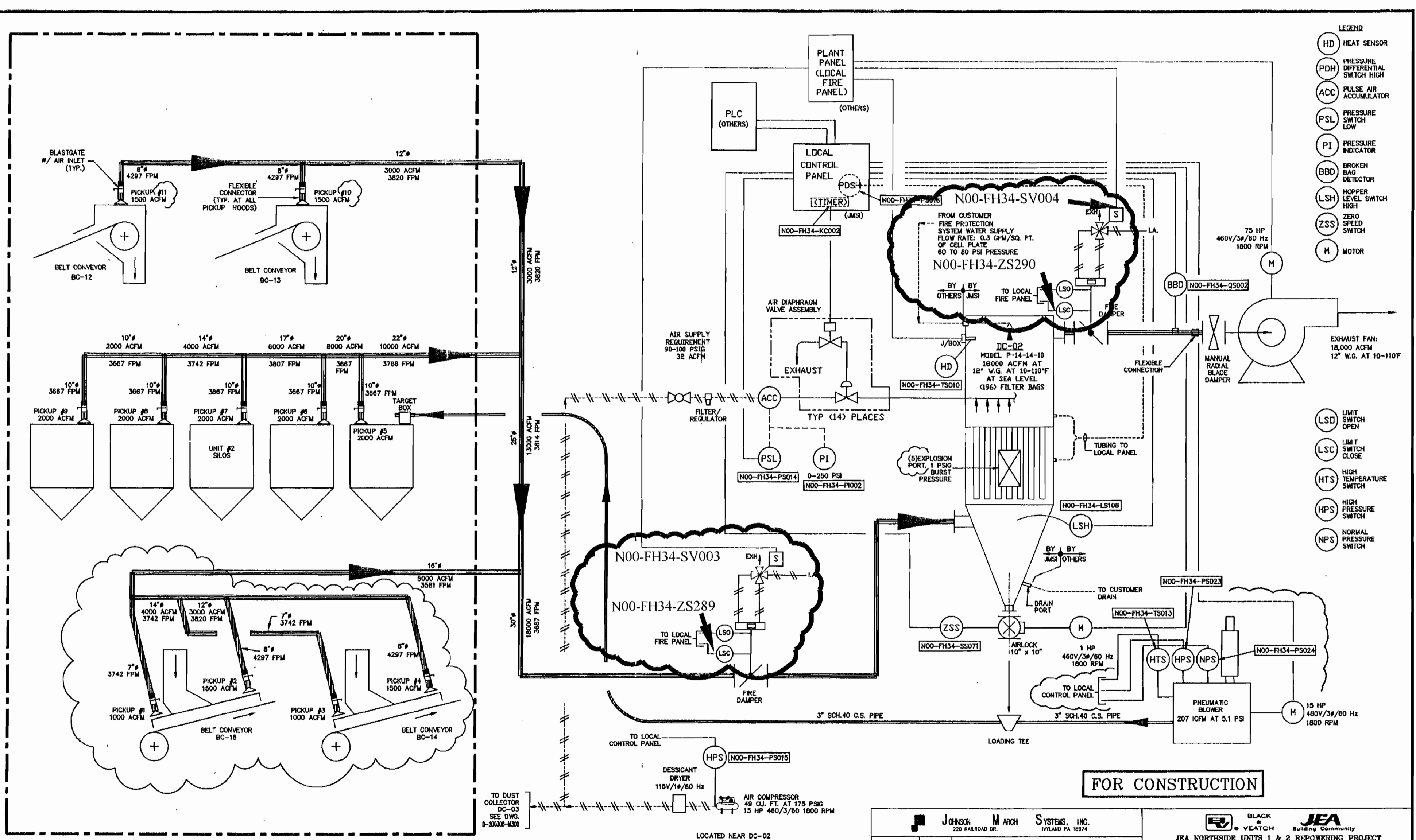
This drawing including the design and details is the property of Johnson March Systems, Inc. It may not be reproduced or copied in whole or in part, nor may it be used except in conjunction with the work of Johnson March Systems, Inc. without the express written permission of Johnson March Systems, Inc.

REV. D	DATE	ADDED QMS ID NUMBERS FOR	REV. C	DATE	ADDED TEMPERATURE AND PRESSURE SWITCHES FOR PNEUMATIC BLOWER	REV. B	DATE	REV. PER CUST. MARKUPS	REV. A	DATE	DELETED PICKUP AT CRUSHERS. REDISTRIBUTE VOLUME TO OTHER PICKUP POINTS.
DR: JLG	10/13/00	ALL INSTRUMENTS	DR: JLG	10/12/00	ADDED USING FOR EXHAUST AND PRESSURE SENSORS	DR: JLG	8/16/00	DATED 7/31/2000 ON DWG.	DR: JLG	8/21/00	REV. A.
CHK: PV	10/13/00		CHK: PV	10/12/00		CHK: PV	8/16/00	REV. A.	CHK: PV	8/21/00	
APP: JLG	10/13/00		APP: JLG	10/12/00	CHANGED TEMPERATURE UNITS TO 10-110F	APP: JLG	8/16/00	REV. COMPRESSOR HORSEPOWER	APP: JLG	8/21/00	
RVD: JLG			RVD: JLG			RVD: JLG	8/16/00	GENERAL REVISION.	RVD: Y. L. MIN	8/26/00	

<b>JOHNSON MARCH SYSTEMS, INC.</b> 220 RAILROAD DR. IVYLAND PA 18774		<b>BLACK &amp; VEATCH</b> Building Community <b>JEA</b> JEA NORTHSIDE UNITS 1 & 2 REPOWERING PROJECT	
PROJECT: MATERIAL HANDLING SYSTEM NAME: DUST COLLECTION SYSTEM MODEL No.: P-14-18-10 TAG No.: DC-01 FLOW DIAGRAM - CRUSHER BUILDING DRAWING NO.: D-200306-M100 CONT. NO.: 1/1		JEA EQUIPMENT NUMBER: N00-FH JEA DRAWING NUMBER: <b>한국정공업주식회사</b> KOREA HEAVY INDUSTRIES & CONSTRUCTION CO., LTD.	

6

IDL30124 06-AUG-2002 14:02:30



PLANT TRANSFER BUILDING

REV. D	DATE	ADDED GEMS ID NUMBERS FOR	REV. C	DATE	REV. PICKUP ARRANGEMENT	REV. B	DATE	REV. PER CLST. MARKUPS	REV. A	DATE	GENERAL REVISION.
DR. JLG	8/23/00	ALL INSTRUMENTS	DR. JLG	8/25/00	TO CONFORM TO MECH. LAYOUT.	DR. JLG	8/18/00	DATED 7/31/2000 ON DWG.	DR. JLG	8/21/00	
CHK. PV	8/23/00		CHK. PV	8/25/00	ADDED TEMP. & PRESS. SWITCHES FOR	CHK. PV	8/18/00	REV. A.	CHK. PV	8/21/00	
APP. PV	8/23/00		APP. PV	8/25/00	PNEUMATIC BLOWER AND ADDED LEADS	APP. PV	8/18/00		APP. PV	8/21/00	
RVD:			RVD:		CHARGED TEMPERATURE LIMITS TO 10-110F	RVD:			RVD: Y. L. W.	8/28/00	

This drawing including the design and details is the property of Johnson March Systems, Inc. It may not be reproduced or copied in whole or in part, nor may it be used except in conjunction with the work of Johnson March Systems, Inc. without the express written permission of Johnson March Systems, Inc.

FOR CONSTRUCTION

**JOHNSON MARCH SYSTEMS, INC.**  
220 RAILROAD DR. WYLAND PA 19374

**BLACK VEATCH** Building Community  
**JEA** NORTHSIDE UNITS 1 & 2 REPOWERING PROJECT

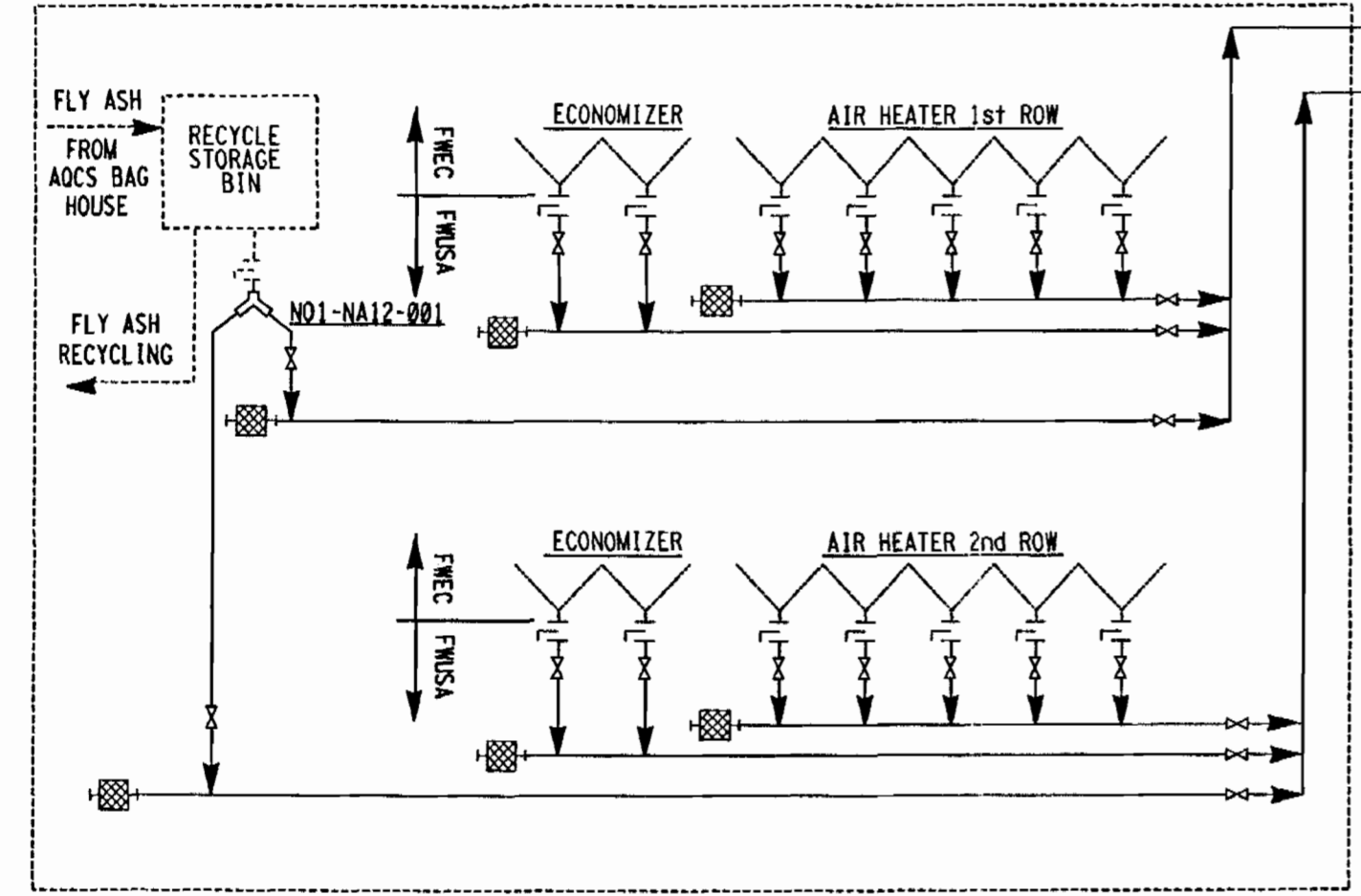
PROJECT: MATERIAL HANDLING SYSTEM  
NAME: DUST COLLECTION SYSTEM  
MODEL No.: P-14-14-10 TAG No.: DC-02  
DRAWING NO.: D-200306-M200

JEA EQUIPMENT NUMBER: N00-FH  
JEA DRAWING NUMBER: [ ]

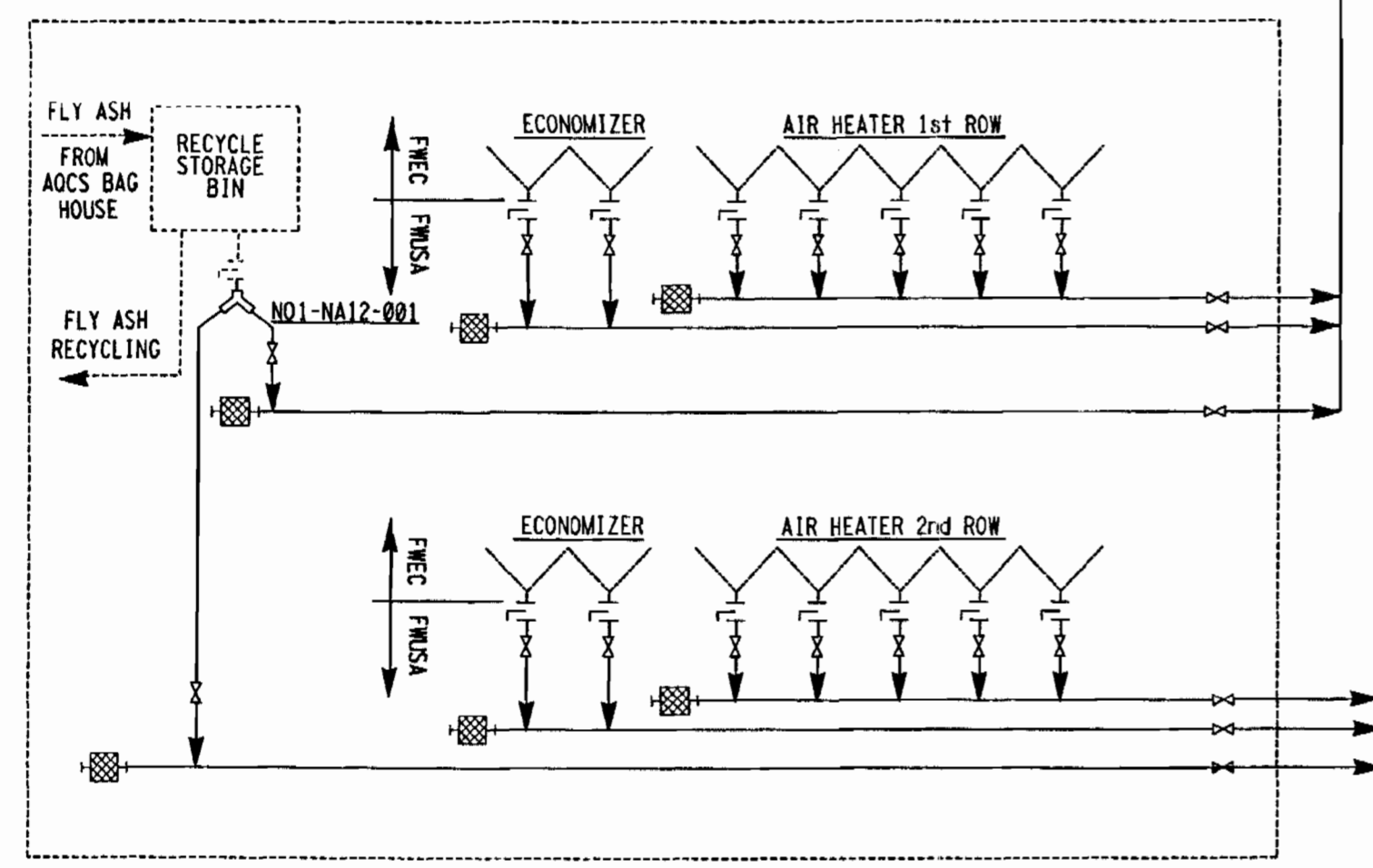
SCALE: NONE  
R. E. V. SHT NO. D 1/1

**한국공공업 주식회사**  
KOREA HEAVY INDUSTRIES & CONSTRUCTION CO., LTD.

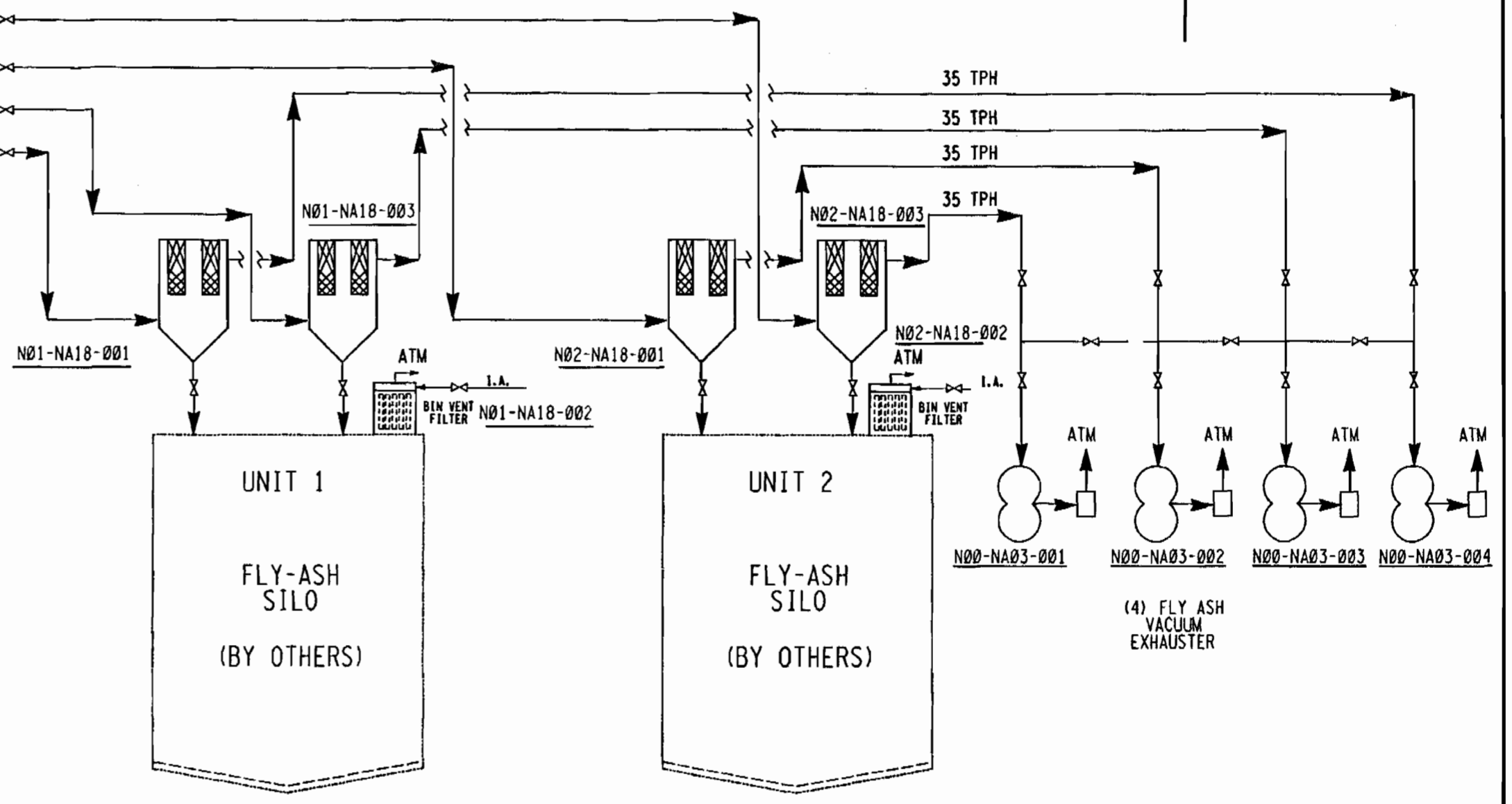
GENERAL NOTES:



UNIT #2



UNIT #1



PRELIMINARY

REV	NO	DATE	DESCRIPTION	REV BY	APP BY
C	1		ISSUED FOR INQUIRY	ESS	FL
B	1		GENERAL REVISION	ESS	FL
A	1		ISSUED FOR COMMENTS	ESS	FL

**JEA**  
JACKSONVILLE, FLORIDA

Northside Units 1 & 2 Repowering Project

EQUIPMENT NO.: N00-NA

D & V DRAWING NO.: P062713.62 1801.04-C0002

PROCESS FLOW DIAGRAM

FLY ASH HANDLING SYSTEM

THIS DRAWING IS THE PROPERTY OF THE FOSTER WHEELER USA CORPORATION, FORT MYERS, FLORIDA, AND IS LOANED TO YOU WITHOUT COMMITMENT OTHER THAN THE UNDERTAKING AGREEMENT THAT IT SHALL NOT BE REPRODUCED, COPIED, EITHER WHOLLY OR IN PART, OR TRANSMITTED IN ANY MANNER OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF FOSTER WHEELER USA CORPORATION. THE PATENT RIGHTS IN THIS DRAWING ARE RESERVED BY FOSTER WHEELER USA CORPORATION.

DRAWN BY:	AAT	SCALE:	NONE	REV.
CHECKED BY:	FL	DATE:	4600-1-50-202	C
APPROVED BY:				

13-04600

IDL30124 06-AUG-2002 14:19:05

**Attachment D**

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

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

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

- Fugitive dust from paved and unpaved roads;
- Sandblasting abrasive material from facility maintenance activities.

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

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

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

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

**Attachment E**

**Fugitive Emissions Identification**



### **Fugitive Emissions Identification**

Other than emissions of unconfined particulate matter addressed in the earlier section, the only other known source of fugitive emissions are VOC emissions from miscellaneous painting activities and other maintenance activities and from fuel oil storage.

**Attachment F**

**List of Insignificant Activities**

## List of Exempt and Insignificant Activities

- Indoor sand blasting and abrasive grit blasting where temporary enclosures are used to contain particulates.
- Plant grounds maintenance.
- Routine maintenance/repair activities such as cleaning, welding, non-asbestos insulation removal, hand held tools/equip., meter repair/maintenance, on-line/off-line cleaning of equipment.
- Main steam pressure/relief valves; steam from boiler operations.
- Non-halogenated solvent cleaning operations.
- Indoor fugitives such as vacuum cleaning, solvent storage, office supplies/equipments.
- Testing equipment such as cems, stack sampling calibration gases, oxygen detectors.
- Internal combustion engines which drive compressors, generators, water pumps, or other auxiliary equipment.
- HVAC (heating, ventilation, and air conditioning systems)
- Vent/exhaust systems for:
  - Print room storage cabinets
  - Transformer vaults/bldg.
  - Maint/welding bldgs.
  - Operating equipment vents
  - Air blowers/evacuators/air locks
  - Feedwater heater vents
- Transformers, switches, and switchgear processing (including cleaning and changing) and venting.
- Vent/exhaust from kitchens and break rooms.
- Vents/stacks for sewer lines or enclosed areas required. For safety or by code
- Electrically heated equipment used for heat treating, tracing, drying, soaking, case hardening or surface conditioning
- Sewage treatment facilities/equipment ranging in size from porta-john to sewage treatment plants
- Steam releases.
- Storage and use of chemicals solely for water/waste water treatment.
- Firefighting training facilities.
- Lawn maintenance equipment activities.
- Application of fungicide, herbicide, pesticide.
- Air compressors and centrifuges used for compressing air.
- Recovered materials recycling systems including: bulb crushers, aerosol can puncturing.

- Waste accumulation/consolidation.
- Compressed air system.
- Storage tanks less than 550 gallons.
- Storage of products in sealed containers.
- Nuclear gauges used for the purpose of process monitoring.
- Insulating activities.
- Asphalt or concrete sealing.
- High pressure water blasting.
- Excavations for construction activities.
- Chemical cleaning
  - Boiler
  - Turbine
  - Heat exchanger
  - Misc. Plant machinery
  - Solvent cleaning (parts & circuit boards)
- Cleaning furnace bottoms or slag removal
- Welding all types
- Cutting all types
  - Milling & machining
- Sanding or grinding - all types
- Emission from portable equipment
  - Welding machines (diesel or gas)
  - Pumps (diesel or gas)
- Pipe line repairs
  - Fly ash
  - Bottom ash
  - Slurry or sludge transfer
  - Fuel line
  - Process water (cooling water, ash water or condensate)
  - Refuse transport line
  - Miscellaneous other process lines
- Bag house repairs
- Filter change out (oil & air)
- Air conditioner repairs
- Battery maintenance
- Coal feeder maintenance

- Refuse feeder maintenance
- Other miscellaneous maintenance
- Fuel oil storage tank cleaning
- Small parts washing using parts washer
- Stack washing (water, soot)
- Cleaning and dewatering of ash basins (heavy equipment/pumps)
- Engine rebuilding
- Lube oil changes
- Receiving fuel oil (truck & pipeline)
- Aerosol can use (cleaners, etc.)
- Boiler chemical cleaning (cirtosolv & ammonia)
- Boiler gun cleaning (guns dipped into vats of solvent)
- Soldering of electrical components (silver, tine solder)
- Portable equipment and tools, including electric and gasoline powered
- Welding, grinding and cutting activities (metal fumes)
- Machining metal parts (cutting oil, metal fumes)
- Cleaning condensers (water vapor, 'snoop')
- Oil-filled electrical equipment vents
- Storage and use of boiler chemicals (phosphates, ammonia, hydrazine, magnesium oxide, sodium tripolyphosphate, soda ash, di- and tri-sodium phosphate)
- Fume hood in laboratory
- Laboratory equipment
- Space heaters
- Fire and safety equipment
- Emergency generators
- Mercury containing equipment such as manometers
- Non-chlorinated solvent degreasing equipment
- Vacuum pumps in laboratory operations
- Equipment use for steam cleaning

**Attachment G**

**List of Equipment/Activities Regulated Under Title VI**

### **List of Equipment/Activities Regulated Under Title VI**

Numerous units at the facility site contain at least 50 lbs of a listed refrigerant (R-22):

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

20 central A/C units using (2 containing R-12)

5 window units

15 refrigerators

5 ice machines

10 water coolers

1 sample cooler

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

**Attachment H**

**Alternative Methods of Operation**



## **Alternative Methods of Operation**

Emission Units 026 and 027 (CFB Units 1 and 2) can operate on coal or petcoke or a blend of both. In addition, these units use natural gas (including landfill gas) and distillate fuel oil for start up.

Emission Unit 033 (Limestone Dryer/Mills) can operate both on natural gas and fuel oil.

**Attachment I**

**Identification of Additional Applicable Requirements**

### **List of Additional Applicable Requirements**

Currently, JEA has identified and addressed all applicable regulatory requirements. If new regulatory requirements become applicable in the future, or if any non-compliance items are discovered after submittal of this application, the necessary steps will be taken to ensure compliance in a timely manner. This is in accordance with company policy of maintaining continuous compliance with all applicable rules and regulations.

**Attachment J**

**Verification of Risk Management Plan Submittal**

4377 Heckscher Drive  
Jacksonville, Florida 32226-3099

May 15, 2002



Ms. Vicki Sharpe, Planning Manager  
Bureau of Compliance Planning and Support  
Department of Community Affairs  
Division of Emergency Management  
2555 Shumard Oak Boulevard  
Tallahassee, Florida 32399-2100

E L E C T R I C

W A T E R

S E W E R

Re: Response to Risk Management Program Audit  
Preliminary Determination Report  
Northside Generating Station  
EPA Facility Identifier: 1000 0013 3839

Dear Ms. Sharpe:

Enclosed is a revised Risk Management Plan (RMP) for the aqueous ammonia tank systems at JEA's Northside Generating Station. The plan was revised in response to a February 15, 2002 Preliminary Determination Report (PDR) from the Department of Community Affairs (DCA) that summarizes observations, findings and conclusions from an on-site audit performed by you and Mr. William Milazzo on January 17, 2002.

Responses to specific findings contained in the PDR also are enclosed. For clarification, the new 40,000-gallon aqueous ammonia tank system is referred to as the "west tank" and the older 6,000-gallon aqueous ammonia tank system is referred to as the "east tank".

We appreciate the useful input and guidance provided by your audit and look forward to the Final Determination Report from your office. Please feel free to contact me at (904) 665-6722 or Scott Turner at (904) 665-4337 if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink that reads "Robert Lucas". The signature is written in a cursive style with a large, sweeping "R" and "L".

Robert Lucas  
Manager, Process Chemistry

c: Scott Turner  
Ken Davis  
Jim Memory  
Bert Gianazza  
Warren Snyder - ERM

**Attachment K**

**Compliance Report and Plan**

## Compliance Report and Plan

At the time of the filing of this application, all units are in compliance with applicable rules and regulations except as noted below.

- None of the required stack testing was performed for Unit 1 (EU027) since the unit did not begin initial operation until May, 2002 and therefore, tests will need to be performed within 180 days of initial operation.
- The Acid Rain Renewal Permit application is being submitted under separate cover.
- Stack test reports for Unit 2 (EU026) and all other required emission testing (other than those noted below) have been completed and final reports are being prepared for submission to the FDEP.

The following tests have not yet been performed as of date:

- Transfer Building # 5 - EPA Method 9 - 3-hour test with Coal.
- Transfer Building # 6 - EPA Method 9 - 3-hour test with Coal.
- Transfer Building # 3 - EPA Method 9 - 3-hour test with Limestone.
- Transfer Building # 4 - EPA Method 9 - 3-hour test with Limestone.
- Transfer Building # 5 - EPA Method 9 - 3-hour test with Limestone.

If new regulatory requirements become applicable in the future, or if any non-compliance items are discovered after submittal of this application, the necessary steps will be taken to ensure compliance in a timely manner. This is in accordance with company policy of maintaining continuous compliance with all applicable rules and regulations.

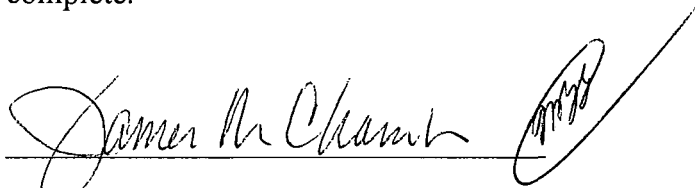
**Attachment L**

**Compliance Certification**

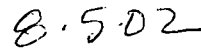


## Compliance Certification

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

A handwritten signature in cursive script, appearing to read "James McCham", is written over a horizontal line. To the right of the signature is a large, stylized flourish or scribble.

Signature

A handwritten date "8.5.02" is written in cursive script over a horizontal line.

Date

**Attachment M**

**Fuel Analysis or Specification**

Best Available Copy

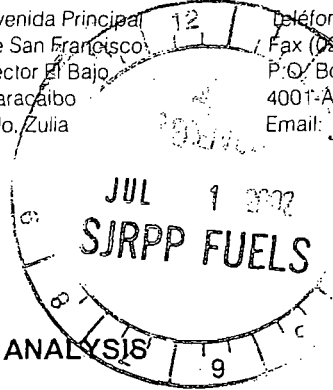


**INCOLAB SERVICES VENEZUELA C.A.**  
COMMODITY SAMPLERS AND ANALYTICAL CHEMISTS

PC-2 002-00  
ORIGINAL

TCP Petcoke Corporation  
1114 Avenue of The Americas - 45th floor  
New York, NW 10036

Oficina y Laboratorio: Avenida Principal de San Francisco Sector El Bajo Maracaibo Edo. Zulia  
Teléfono (0261) 7619521 Fax (0261) 7612787 P.O. Box 390 4001-A Maracaibo Email: isvca@cantv.net



**CERTIFICATE OF ANALYSIS**

Date : 22-Jun-02  
Our ref. : 020626-V  
Material : Petroleum Coke  
Vessel : M/V Jadran, B/L 20-Jun-02  
Lot No. : Average  
Port : Amuay Bay, Venezuela.  
Weight : 51,528.263 mt.  
Sampling date : 12-June-02 - 20-June-02

Moisture, as received : 5.61 % ✓  
Ash, as received : 0.67 % ✓  
Ash, dry : 0.71 %  
Volatile Matter, as received : 11.08 %  
Volatile Matter, dry : 11.74 %  
Gross Calorific Value, as received : 14501 Btu/lb ✓  
Gross Calorific Value, dry : 15363 Btu/lb  
Sulphur, as received : 4.23 % ✓  
Sulphur, dry : 4.48 %  
Hardgrove Index : 63

Analysis performed in accordance with ASTM standards.

For and on behalf of,  
INCOLAB SERVICES VENEZUELA C.A.





Commercial Testing & Engineering Co.

REC'D JUL 16 2002

1501-A E. Patapsco Avenue  
Baltimore, MD 21226  
Tel: (410) 355-1958  
Fax: (410) 355-1965  
www.comteco.com

July 15, 2002

RAG COAL SALES OF AMERICA  
999 Corporate Boulevard  
Linthicum Heights, MD 21090

CERTIFICATE OF: ANALYSIS

RE: **Barge "SOMERSET"** at Chesapeake Bay Piers,  
Baltimore, MD, USA  
Representing **14,868.047 Short Tons of Coal**  
OUR FILE NO.: 8610443

Commercial Testing & Engineering Company analyzed the above shipment in accordance with ASTM Standards.

C. T. & E. Co., per your instructions, collected samples during loading of the barge at The Chesapeake Bay Piers, Baltimore, MD on July 13, 2002. The samples reported were collected by MECHANICAL sampling.

Our Laboratory reports the following composite results:

<u>PROXIMATE ANALYSIS</u>	<u>AS RECEIVED</u>	<u>DRY BASIS</u>
TOTAL MOISTURE	4.73 %	xxxxx
ASH	8.16 %	8.57 %
VOLATILE MATTER	36.96 %	38.79 %
FIXED CARBON	50.15 %	52.64 %
SULFUR	2.64 %	2.77 %
GROSS CALORIFIC VALUE (Btu/lb.)	13268	13927
MAF (Btu/lb.)	15232	

COMMERCIAL TESTING & ENGINEERING CO.

*William P. McDonough*  
William P. McDonough  
Manager, Baltimore Operations



Member of the SGS Group (Société Générale de Surveillance)

ALL INSPECTIONS ARE CARRIED OUT TO THE BEST OF OUR KNOWLEDGE AND ABILITY AND OUR RESPONSIBILITY IS LIMITED TO THE EXERCISE OF REASONABLE CARE

TERMS AND CONDITIONS ON REVERSE

Best Available Copy

# A. J. EDMOND COMPANY

An ISO 9002 Certified Company  
CHEMISTS / ENGINEERS  
1530 Texas Avenue  
Texas City, Texas 77590  
(409) 948-4504  
Fax: (409) 948-4046

Analytical Laboratory  
Cargo Surveys  
Barge Surveys  
Commodity Surveys  
Inspectors  
Consultants  
Manufacturing  
Sampling Systems



ISO 9002  
Certificate Number: 24314

July 17, 2002

Applied Industrial Materials Corp.  
100 First Stamford Pl.  
Stamford, CT 06904

Project Number: 300182  
Issued at loading Port:  
Premcor Refinery Dock  
Port Arthur, Texas

## Certificate Of Analysis

Report: O/B Marie Flood

- 1.0 Commodity: Green Delayed Petroleum Coke
- 2.0 Loading: The coke was loaded into the vessel at the bulk loading facilities at Premcor Refinery Dock, Port Athur, TX  
Hold(s): 1, 2, 3, 4, 5  
Date(s): July 12, 13, 2002  
Weather: Rain
- 3.0 Sampling: The coke was sampled during the loading process by the Methods of the American Society for Testing and Materials.
- 4.0 Analyses: On a composite of the samples taken, the following determinations were made using the Methods of the American Society for Testing and Materials.

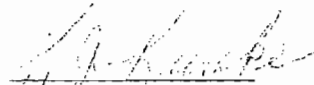
4.1 Samples As Marked:

<i>Test Description</i>	<i>As Received Composite Run of Coker</i>	<i>Dry Composite</i>
<b>Size:</b>		
<b>Moisture, %</b>	6.90	
<b>Volatile Matter, %</b>	9.65	10.37
<b>Ash, %</b>	0.35	0.38
<b>Fixed Carbon, %</b>	83.09	89.25
<b>Sulfur, %</b>	6.14	6.59
<b>Hardgrove Grindability, Index</b>		37
<b>Calorific Value, BTU/lb</b>	14103	15148
0 x 75mm		0.0
0 x 6 mm		45.2
Pan		54.8

KJK/100

Respectfully Submitted

A. J. EDMOND COMPANY

by   
K. J. Kumke

Form 2.10fl



**Attachment N**

**Detailed Description of Control Equipment**

**JIEA**  
**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 °F 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 filter 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.

## APPENDIX BD

### BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

---

rate of 1,500 TPH. Coal and petroleum coke would be reclaimed from within the enclosed storage pile and conveyed to the new Crusher House at a maximum rate of 700 TPH. Within the Crusher House the coal and petroleum coke are crushed and sized at a maximum rate of 1,400 TPH (700 TPH/crusher) and transferred to the boiler feed silos (ten total, five per CFB boiler) by either of two 700 TPH conveyors.

JEA's Alternate 1 involves the construction of additional equipment at SJRCT including a second ship unloader, additional conveyors and transfer points and an enclosed surge pile as well as additional conveyors and transfer points, stackers and reclaimers, and slightly expanding the existing storage pile at SJRPP. From the SJRPP storage pile, coal and petroleum coke would be reclaimed and conveyed to the NGS Crusher House at a maximum rate of 700 TPH. Within the Crusher House the coal and petroleum coke are crushed and sized at a maximum rate of 1,400 TPH (700 TPH/crusher) and transferred to the boiler feed silos (ten total, five per CFB boiler) by either of two 700 TPH conveyors.

The existing SJRPP Rotary Railcar Dumper will support the NGS Repowering Project under both scenarios, increasing the potential throughput of the SJRPP Rotary Railcar Dumper from 5.13 million tons (SJRPP Requirement) to 7.55 million tons per year. Under the Base Case, coal and petroleum coke will be delivered to the enclosed NGS fuel storage pile at a maximum rate of 1,500 TPH on a new conveyor system connecting SJRPP and NGS. Under Alternate 1, coal and petroleum coke will be delivered to the existing SJRPP storage pile at a maximum rate of 4,000 TPH, reclaimed and conveyed to NGS at a maximum rate of 1,500 TPH on a new conveyor system.

Pebble Lime will be delivered to NGS and pneumatically conveyed from the tanker truck into a storage silo at a maximum rate of 20 TPH and 175,200 TPY. The pebble lime is later hydrated and pumped to the add-on AQCS for the CFB boilers to control SO<sub>2</sub> emissions.

Fly ash emitted by the CFB boilers and collected within each particulate matter AQCS will be pneumatically transferred to a corresponding waste bin at an average rate of 27 TPH. From the waste bin, the fly ash is pneumatically conveyed to either of two fly ash silos at a rate of 27 TPH. From the silos, the fly ash can be either hydrated or transferred directly to a tanker truck. Each silo will be equipped with four hydrators capable of processing 25 TPH of fly ash each. From the hydrators, the hydrated fly ash will be loaded directly into dump trucks. Transfer of dry fly ash directly into a tanker truck is accomplished at rates as high as 250 TPH with emissions vented to a fabric filter.

Bed ash discharged from the CFB boilers is transferred to a corresponding bed ash silo at an average rate of 21 TPH. From the silos, the bed ash can be either hydrated or transferred directly to a tanker truck. Each silo will be equipped with two hydrators each capable of processing 59 TPH of fly ash. From the hydrators, the hydrated bed ash can be loaded directly into dump trucks. Transfer of dry bed ash directly into a tanker truck is accomplished at rates as high as 250 TPH with emissions vented to a fabric filter.

#### CONTROL TECHNOLOGIES:\*

#### **PARTICULATE MATTER (PM<sub>10</sub>/TSP) CONTROL TECHNOLOGIES**

Particulate matter emissions will be generated by the CFB Boilers, the limestone dryers/mills, and the materials handling and storage operations. Review of the available control technologies is presented for each emissions unit classification.

#### CFB Boilers

Particulate matter emissions are generated as a result of inert materials within the fuel, the bed media (fuel, ash, and limestone) and the incomplete combustion of the fuel in the form of unburned carbon. For CFB boilers, the most stringent control technology for particulate matter has been the use of an add-on AQCS to reduce emissions to levels of 0.011 lb/mmBtu (One unit was restricted to 0.01 lb/mmBtu but that limit is less stringent than the 0.011 lb/mmBtu because of rounding (0.01 = 0.014)). The available control options include cyclone separators, wet scrubbers, fabric filters and electrostatic precipitators (ESP). As part of the BACT evaluation the applicant's CFB boiler vendor evaluated three options for controlling particulate matter emissions.

The evaluations were supported by AQCS vendor proposals and guarantees for each at 0.011 lb/mmBtu. These evaluations included the following:

## APPENDIX BD

### BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

---

- The use of a fabric filter in conjunction with a spray dryer absorber (SDA) was proposed for the direct control of particulate matter and sulfur dioxide (SO<sub>2</sub>) from the CFB boilers. The AQCS's were proposed by Wheelabrator Air Pollution Control (WAPC) Inc. and included a particulate matter (PM<sub>10</sub>/TSP) guarantee of 0.011 lb/mmBtu. The overall AQCS proposed by WAPC included use of a dry scrubbing system incorporating two (2) spray dryers and a fabric filter for each CFB boiler. Use of a fabric filter on a CFB boiler and use of a fabric filter in combination with a spray dryer is a proven technology and available from other vendors such as ABB Environmental Services.
- The use of the ESP in conjunction with a circulating fluidized bed scrubber was proposed as a second option for the direct control of particulate matter and SO<sub>2</sub> emissions from the CFB boilers. The AQCS was proposed by Environmental Elements Corporation and included a particulate matter (PM<sub>10</sub>/TSP) guarantee of 0.011 lb/mmBtu. The circulating fluidized bed scrubber is considered a "newer" technology with reportedly lower capital and operating costs over the more conventional spray dryer absorber/fabric filter. The proposed combination has been successfully demonstrated on other projects including the Black Hills Power & Light's Neil Simpson Station where it is meeting a permit limit of 0.02 lb/mmBtu with measured levels of 0.009 and 0.007 lb/mmBtu after initial commissioning and one year of operation, respectively.
- All three options for the CFB boilers to reduce SO<sub>2</sub> emissions included particulate matter (PM<sub>10</sub>/TSP) guarantees of 0.011 lb/mmBtu.
- Particulate Matter (PM/PM<sub>10</sub>) emissions of 0.011 lb/mmBtu from the CFB boilers are less than or equal to other BACT determinations for similar sized CFB boilers. The use of a SDA/FF, CFBS/ESP, or CFBS/FF as an add-on AQCS is considered to be the most stringent control technology available and therefore constitutes BACT.

#### Limestone Dryers/Mills

Particulate matter emissions are generated as a result of the fuel combustion and the limestone milling operation. For rock dryers/mills, the most stringent control technology has been the use of add-on AQCS to reduce emissions to levels of 0.02 gr/dscf. As part of the BACT evaluation, the applicant's CFB boiler vendor identified a fabric filter as the most stringent control technology for controlling particulate matter emissions.

The use of a fabric filter for the direct control of particulate matter from the limestone dryers/mills was proposed by Pennsylvania Crusher Corporation and included a particulate matter guarantee of 0.01 gr/dscf. The applicant's proposed use of a fabric filter with a guaranteed grain loading of 0.01 gr/dscf is the most stringent control technology and the most stringent emission limitation, and is therefore BACT.

#### Materials Handling and Storage Operations

Particulate matter emissions generated from materials handling and storage operations are typically controlled by one or more strategies. Typical strategies include but are not limited to the following:

1. Handling and storing bulk materials in a wet or semi-wet condition. These materials are considered "conditioned materials" and will typically have moisture contents greater than 3.5 percent.
2. Direct application of water and/or chemicals to bulk materials for purposes of increasing moisture content and/or stabilizing small particles is considered a "Wet Suppression" technique.
3. Indirect application of water to materials for purposes of knocking down fugitive dust once it is released from the operation is considered the use of "Water Sprays."
4. Total or partial enclosures, or wind breaks/guards to reduce or eliminate particulate emissions or causes of such emissions.
5. Best operating practices includes design features and operating practices to reduce or eliminate the causes of fugitive dust emissions.
6. Dust collection systems which collect and control particulate emissions from partial or totally enclosed operations with the use of an add-on AQCS.

## APPENDIX BD

### BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

---

The most stringent control technology is the total enclosure of the emissions unit or activity which is generating the particulate matter. However, in some cases this approach is not practical based on either economic or safety reasons and the available control strategies must be implemented.

For dry materials handling activities which are totally or partially enclosed and require industrial ventilation (Dust Collection System) for health or safety reasons, which accordingly and are vented to the outside, the use of an add-on AQCS is typically required as BACT. The most stringent control technology applied to dust collection systems is the use of a fabric filter. The most stringent emission limitation associated with materials handling operation AQCS's is a grain loading of 0.01 gr/dscf and a 5% opacity standard. The applicant has proposed that the following emissions units at NGS be equipped with dust collection systems equipped with fabric filters meeting the 0.01 gr/dscf and a 5% opacity limitation:

- Emissions Unit 29 - Crusher House
- Emissions Unit 31 - Boiler Fuel Silos
- Emissions Unit 32 - Limestone Receiving Bins
- Emissions Unit 34 - Limestone Crusher Conveyor Transfers
- Emissions Unit 35 - Limestone Feed Silos
- Emissions Unit 36 - Fly Ash Waste Bins
- Emissions Unit 37 - Fly Ash Transfer and Storage Systems
- Emissions Unit 38 - Bed Ash Transfer and Storage Systems
- Emissions Unit 40 - Bed Ash Truck Loadout Systems
- Emissions Unit 41 - Fly Ash Truck Loadout Systems
- Emissions Unit 42 - Pebble Lime Silo

For the bed ash and fly ash hydrators (Emissions Unit 39), use of a fabric filter is not feasible due to the high water vapor content within the exhaust gas stream. Use of high efficiency venturi scrubbers was therefore proposed. The most stringent control technology applied to the hydrators is the use of a high efficiency venturi scrubber. The most stringent emission limitation associated with the hydrators is a 5% opacity standard as requested by the applicant.

For the materials handling and storage operations (Emissions Unit 28) which do not require ventilation for health or safety reasons, the applicant has proposed the use of control strategies 1-5 listed above, or combinations thereof. Implementation of the control strategies will ensure that the 5% opacity limitation is met from the operations. The following emissions units/activities will implement the associated control strategies as needed to meet a 5% opacity limitation:

- Transfer Towers - Emissions Units 28c, 28g, 28i, 28o & 28q
- Enclosed Fuel Storage Pile Operations - Emissions Unit 28h
- Limestone Lowering Well - Emissions Unit 28d
- Fly & Bed Ash Hydrator Loadouts - Emissions Unit 28r

For the conveyors, the applicant has proposed the use of conditioned materials, best operating practices and covers to eliminate particulate matter emissions. Implementation of the control strategies will ensure that visible emissions do not exceed 5 percent opacity from the operations.

For the Limestone Storage Pile and Reclaim Hopper (Emissions Unit 28p), the applicant has proposed the use of conditioned materials and water sprays on the pile and hopper, as needed, to control particulate matter emissions. Implementation of the control strategies will ensure that visible emissions do not exceed 10 percent opacity from the operations.

## APPENDIX BD

### BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

---

For the Ship Unloading Operations (Emissions Unit 28a), the applicant has proposed the use of conditioned materials and partial enclosures of the shiphold and water sprays on the ship unloading hopper to control particulate matter emissions. Implementation of the control strategies will ensure that visible emissions do not exceed 10 percent opacity from the operations.

For the Ship Unloader Conveyor D-1, the applicant has proposed the use of conditioned materials and wind screens to control particulate matter emissions. Implementation of the control strategies will ensure that visible emissions do not exceed 10 percent opacity from the operations.

Information provided by the applicant indicated the economic impact associated with the use of additional dust collection systems equipped with a fabric filter would require an additional capital investment of about \$83,600 and annual operating costs of about \$37,900 per system. The economics were based on the individual transfer operations (<2 transfer points) with transfer rates 1,500 TPH and 2.42 million TPY of coal and petroleum coal, and 3.9 TPY of particulate matter emissions. With potential reductions of 99 percent over the proposed controls, use of a dust collection system and fabric filter resulted in an estimated incremental cost of about \$9,770 per ton. The \$9,770/ton incremental cost is excessive by comparison with the Department's Indiantown BACT Determinations which reported costs of \$9,244/ton as excessive. Therefore, BACT for the individual transfer operations is the use of conditioned materials, partial enclosures, water sprays, and/or wet suppression, as needed.

#### **NITROGEN OXIDES (NO<sub>x</sub>) CONTROL TECHNOLOGIES**

NO<sub>x</sub> is emitted from CFB boilers and the limestone dryers during the combustion process. The formation of NO<sub>x</sub> occurs through one of three primary mechanisms which include the following:

- Thermal NO<sub>x</sub>;
- Fuel NO<sub>x</sub>; and
- Prompt NO<sub>x</sub>.

Thermal NO<sub>x</sub> refers to the mechanism by which NO<sub>x</sub> is formed through the dissociation of molecular nitrogen and oxygen in the combustion air into their atomic states and through various reactions produce NO<sub>x</sub>. At temperatures above 2,200 °F, thermal NO<sub>x</sub> production is significant and increases exponentially as temperatures increase further. The primary factors impacting thermal NO<sub>x</sub> production include temperature, oxygen and nitrogen concentrations, and the residence time within the combustion zone. These same factors impact complete combustion of the fuels.

Fuel NO<sub>x</sub> refers to the mechanism by which NO<sub>x</sub> is formed through the reduction and oxidation of nitrogen contained within the chemical structure of the fuel. This nitrogen is known as fuel bound nitrogen (FBN) and for solid and liquid fuels can be significant enough to make Fuel NO<sub>x</sub> the primary mechanism.

Prompt NO<sub>x</sub> refers to the mechanism by which NO<sub>x</sub> is formed under fuel rich conditions through the formation of intermediate species and their eventual oxidation. The formation of prompt NO<sub>x</sub> has a weak temperature dependence that can become strong under fuel rich conditions. Prompt NO<sub>x</sub> typically contributes the smallest magnitude to the total overall NO<sub>x</sub> emissions of the three formation methods discussed.

By understanding the mechanisms and chemical reactions which produce NO<sub>x</sub> emissions, control strategies can be developed. These strategies include precombustion controls, combustion techniques, and post combustion techniques.

#### **CFB Boilers**

For CFB boilers, available control technologies which have been commercially demonstrated include the following:

- Precombustion Controls;
- Combustion Controls; and
- Selective Noncatalytic Reduction (SNCR).

Precombustion controls focus on fuel quality, specifically the maximum FBN within a given fuel. Information presented within the application indicated the use of coal with an estimated FBN content of 1.3 percent by weight

## APPENDIX BD

### BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

---

and petroleum coke with an estimated FBN content of 1.7 percent by weight. These values have been used by JEA for design purposes based on available fuels.

Combustion controls focus on reducing the production of both Thermal and Fuel NO<sub>x</sub> by reducing combustion temperatures and limiting available oxygen. With operating bed temperatures between 1,500 °F and 1,600 °F, the amount of Thermal NO<sub>x</sub> formed within a CFB boiler is less than that of conventional units (i.e., Stoker, Cyclone or Pulverized Coal Unit) making Thermal NO<sub>x</sub> only a minor factor in overall NO<sub>x</sub> emissions. In addition to their low operating temperature, CFB boilers can be designed to suppress Fuel NO<sub>x</sub> by use of staged combustion. This is accomplished by directing less than a theoretical amount of combustion air through the distributor plate and adding the remaining combustion air above the dense bed. As a result, the FBN decomposes into molecular nitrogen rather than forming NO<sub>x</sub>.

Selective non-catalytic reduction (SNCR) is a post combustion control technology involving the injection of either ammonia or urea into specific temperature regions of the CFB boiler. The ammonia or urea reacts with the NO<sub>x</sub> to produce nitrogen and water. The effectiveness of the SNCR depends on the temperature where the reagents are injected; the mixing of the reagent within the combustion gases; the residence time of the reagent within the temperature window; and the ratio of reagent to NO<sub>x</sub>. SNCR can reduce NO<sub>x</sub> emissions by 50 to 70 percent over uncontrolled levels.

For CFB boilers of the size class proposed by the applicant, NO<sub>x</sub> emissions as low as 0.11 lb/mmBtu have been achieved through precombustion controls, combustion controls, and SNCR. The applicant reported and the Department noted BACT and LAER determinations on smaller CFB boilers as low as 0.039 lb/mmBtu. The Department considered the size variations between the smaller units and the proposed unit and agreed with the applicant that the smaller units were not representative of the larger units proposed and thus can be excluded from the BACT evaluation. For the proposed CFB boilers, the applicant has received a vendor guarantee of 0.09 lb/mmBtu through the use of precombustion controls, combustion controls, and SNCR. This control strategy represents the most stringent control technology and the proposed emission limit is representative of the most stringent emission limitation for a CFB boiler of this size, and is therefore BACT.

While the use of SNCR is BACT and the most stringent control technology, the applicant evaluated the use of selective catalytic reduction (SCR) as a post combustion control technology to further reduce NO<sub>x</sub> emissions. The applicant reported that its use would add significant capital costs to the project. In addition, there are uncertainties associated with its use as a transfer technology and it has never been demonstrated on a CFB boiler which raise technical feasibility issues. To avoid catalyst poisoning with the calcium in the limestone/bed media, the SCR would need to be installed after the SO<sub>2</sub> and PM AQCS and a reheat system incorporated to raise the flue gas temperature which would result in additional costs and impacts. Based on the identification of SNCR as BACT and uncertainties and costs of adding SCR as a transfer technology, the use of SCR was correctly rejected by the applicant.

#### Limestone Dryers/Mills

For the limestone dryers/mills, combustion controls focusing on reduction of Thermal NO<sub>x</sub> are considered the most stringent control technology. For the dryers/mills, the vendor has provided a NO<sub>x</sub> emissions estimate based on a rate of 0.2 lb/mmBtu which can be achieved through combustion controls using low-NO<sub>x</sub> burners. The use of combustion controls constitutes BACT for the limestone dryers/mills.

#### **CARBON MONOXIDE (CO) CONTROL TECHNOLOGIES**

Carbon monoxide (CO) emissions will be generated by the CFB Boilers and the limestone dryers/mills as a result of the incomplete combustion of the fuels. Review of the available control technologies is presented for each emissions unit classification.

#### CFB Boilers

The only control strategy currently used for controlling CO emissions from utility steam generators, including CFB boilers, are combustion controls. Combustion controls include the following:

- High Temperatures;
- Sufficient Excess Air;

## APPENDIX BD

### BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

---

- Sufficient Residence Times; and
- Perfect Air/Fuel Mixing.

For somewhat smaller CFB boilers, compared to the size proposed by the applicant, CO emissions as low as 0.13 lb/mmBtu at full loads can be achieved through combustion controls. For each CFB boiler, the applicant has proposed an emission limit of 350 lb/hr (~0.13 lb/mmBtu @ Full Load) which has been guaranteed by the boiler vendor, to apply at all times other than during startup, shutdown, and malfunction conditions. For the CFB boilers, data provided by the applicant reveals higher CO emission rates at lower loads. The requested single mass emission limitation was proposed by the applicant in-lieu of 0.22 lb/mmBtu, which is "worst case" at lower loads, and covers operations over the load range. Based on the high degree of NO<sub>x</sub> control and given the generally inverse relationship between CO and NO<sub>x</sub> emission rates, the relatively low mass emission rate of 350 lb/hr for CO constitutes BACT.

At the request of the Department, the applicant investigated the use of transfer technologies including a thermal oxidizer and an oxidation catalyst. The Department's intent was to evaluate the availability of such add-on AQCS for use on steam generators and, if possible, further reduce CO emissions from the proposed CFB boilers. The applicant conducted the requested investigation but found that neither technology was technically or economically feasible for CFB boilers of the size contemplated. Technical feasibility of the catalyst required its location downstream of the add-on AQCS's, installation of a natural gas-fired reheat system, and use of a heat recovery system to minimize costs. Based on the US Environmental Protection Agency's Cost Control Manual, the installation of such a system would increase the total capital cost of the project by \$2.6 million, with an annualized cost of \$21.8 million per year and a levelized cost of about \$19,990 per ton to further limit CO and VOC emissions. The addition of add-on controls would therefore reduce emissions, but at costs significantly higher than values which have been previously determined by the Department to be excessive.

For CFB boilers, the use of good combustion practices to minimize NO<sub>x</sub> formation while maximizing combustion efficiency is recognized as the most stringent control technology for CO emissions. The proposed emission rates have been guaranteed by the CFB boiler manufacturer and constitute BACT.

#### Limestone Dryers/Mills

Carbon monoxide (CO) would be emitted from the limestone dryers/mills as a result of incomplete combustion of the fuels fired. The only control strategy currently used for controlling CO emissions from rock dryers, including limestone dryers/mills, is good combustion techniques. For limestone dryers/mills, CO emissions at 50 ppmv can be achieved through combustion controls. Combustion controls constitute BACT for the limestone dryers/mills.

#### **VOLATILE ORGANIC COMPOUNDS (VOC) CONTROL TECHNOLOGIES**

Volatile organic compound (VOC) emissions will be generated by the CFB Boilers and the limestone dryers/mills as a result of the incomplete combustion of the fuels as is CO. Review of the available control technologies is presented for each emissions unit classification.

#### CFB Boilers

Control strategies associated with VOC are the same as for CO.

For CFB boilers, VOC emissions as low as 0.004 lb/mmBtu through good combustion practices have been reported on a unit with a higher NO<sub>x</sub> emission rate of 0.125 lb/mmBtu. For each CFB boiler, the applicant has proposed an emissions limit of 14 lb/hr (~0.005 lb/mmBtu @ Full Load). As with CO emissions, the use of good combustion practices to minimize NO<sub>x</sub> formation while maximizing combustion efficiency is recognized as the most stringent control technology for CO emissions. The add-on controls as discussed for CO could reduce emissions but at costs significantly higher than values which have been previously determined by the Department to be excessive. The proposed emission rates have been guaranteed by the CFB boiler manufacturer and constitute BACT.



**APPENDIX BD**  
**BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)**

---

**Limestone Dryers/Mills**

VOCs are emitted from the limestone dryers/mills as a result of incomplete combustion of the fuels fired. The only control strategy currently used for controlling VOC emissions from rock dryers, including limestone dryers/mills, is good combustion techniques which represents the most stringent control technology. For limestone dryers/mills, VOC emissions at 0.02 lb/mmBtu can be achieved through combustion controls. Combustion controls constitute BACT for the limestone dryers/mills.

**TOTAL FLUORIDE CONTROL TECHNOLOGIES**

Total fluoride, expected to be emitted as hydrogen fluoride (HF), will be generated from the CFB boilers and Limestone Dryers/Mills as a result of trace amounts of fluoride within the fuels and limestone. Review of the available control technologies is presented for each emissions unit classification.

**CFB Boiler**

For CFB boilers, the most stringent control technology has been the use of an add-on PM AQCS and CFB boiler technology to reduce total fluorides emissions to levels of  $1.36 \times 10^{-3}$  lb/mmBtu. The available control options include the following:

- Spray Dryer Absorber/Fabric Filter; or
- Circulating Fluidized Bed Scrubber/Electrostatic Precipitator (ESP).
- Circulating fluidized bed scrubber with a fabric filter (proposed by ABB Environmental Services).

The fluoride contents of the coal, petroleum coke, and limestone were estimated as 0.0001 lb/lb, 0.000031 lb/lb, and 0.000001 lb/lb, respectively. The worst-case coal scenario results in uncontrolled fluoride emissions of  $3.89 \times 10^{-3}$  lb/mmBtu. The worst-case petroleum coke scenario results in uncontrolled fluoride emissions of  $1.78 \times 10^{-2}$  lb/mmBtu. These values represent worst case release rates which were presented by the applicant's CFB boiler vendor to the AQCS vendors. The AQCS vendors provided proposals and guarantees for fluoride removal by their systems of 0.43 lb/hr ( $1.57 \times 10^{-4}$  lb/mmBtu).

The use of a SDA/FF, a CFBS/ESP, or a CFBS/FF will provide for the indirect control of fluoride from the CFB boilers. All three AQCS's included a fluoride guarantee of  $1.57 \times 10^{-4}$  lb/mmBtu which is lower than the most stringent emission limitation for a coal fired CFB boiler and represents BACT.

*added* { Total Fluoride (HF) emissions of 0.43 lb/hr, on a 3-hour average, from the CFB boilers are lower than other BACT determinations for similar sized CFB boilers. The use of a SDA/FF, CFBS/ESP, or CFBS/FF as add-on AQCS's is considered to be the most stringent control technology available and therefore constitutes BACT.

**Limestone Dryers/Mills**

For the limestone dryers/mills, the applicant has proposed fuel quality, the firing of natural gas and low sulfur distillate oil, as BACT which is considered the most stringent control technology. Both natural gas and low sulfur distillate oil contain insignificant amounts of fluoride and the Department considers their use as BACT.

**MERCURY (Hg) CONTROL TECHNOLOGIES**

Mercury emissions will be generated from the CFB boilers and Limestone Dryers/Mills. The mercury emitted from these operations is associated with trace amounts contained within the fuels and limestone used within each operation. Review of the available control technologies is presented for each emissions unit classification.

**CFB Boilers**

For CFB boilers, the most stringent control technology for mercury emissions has been the use of an add-on PM AQCS and CFB boiler technology to reduce mercury emissions to levels of  $1.45 \times 10^{-5}$  lb/mmBtu. The available control options include the following:

- Spray Dryer/Fabric Filter;
- Fluidized Bed Scrubber/Electrostatic Precipitator (ESP);

**APPENDIX BD**  
**BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)**

- Fluidized Bed Scrubber/Fabric Filter; and
- Carbon Injection System

The mercury contents of the coal, petroleum coke, and limestone have been estimated at  $1.70 \times 10^{-7}$  lb/lb,  $3.0 \times 10^{-8}$  lb/lb, and  $1.0 \times 10^{-8}$  lb/lb, respectively. The worst-case coal scenario results in uncontrolled mercury emissions of  $1.74 \times 10^{-5}$  lb/mmBtu. The worst-case petroleum coke scenario results in uncontrolled mercury emissions of  $1.47 \times 10^{-5}$  lb/mmBtu. These values represent worst case release rates which were presented by the applicant's CFB boiler vendor to the AQCS vendors. The AQCS vendors provided proposals and guarantees that mercury emissions from their systems will not exceed 0.03 lb/hr. ( $1.05 \times 10^{-5}$  lb/mmBtu). The use of either the SDA/FF, CFBS/ESP, or CFBS/FF will provide for the indirect control of mercury from the CFB boilers. All three AQCS's proposed included mercury guarantees of  $1.05 \times 10^{-5}$  lb/mmBtu which is more stringent than the most stringent emission limitation and represents BACT. The use of a carbon injection system designed to further control Hg emissions was evaluated based on a vendor quote by the applicant. Total capital costs of \$680,000, annualized costs of \$1,000,000 per year, and incremental costs of about \$9.5 x 10<sup>6</sup> per ton to control Hg emissions were estimated. The \$9.5 million per ton incremental cost is excessive and is consistent with other Department determinations which did not require add-on AQCS's for Hg. Because of the ability of the proposed AQCS to meet the most stringent emission limitation and consideration of the economic impacts the use of a SDA/FF, CFBS/ESP, or CFBS/FF is BACT.

Mercury (Hg) emissions of 0.03 lb/hr, on a 3-hour average, from the CFB boilers is lower than other BACT determinations for similar sized CFB boilers. The use of either a SDA/FF, CFBS/ESP, or CFBS/FF as add-on AQCS's is considered to be the most stringent control technology available and therefore constitutes BACT.

**Limestone Dryers/Mills**

For the limestone dryers/mills, the applicant has proposed fuel quality, the firing of natural gas and low sulfur distillate oil, as BACT which is considered the most stringent control technology. Both natural gas and low sulfur distillate oil contain insignificant amounts of mercury and the Department considers their use as BACT.

**DEPARTMENT BACT DETERMINATION**

Following are the BACT limits determined for the JEA Repowering Project. The emission limits as well as the applicable averaging times, are given in the permit Specific Conditions Nos. 12-22, 24, and 25.

CFB Boilers

PSD Pollutant	Control Technology	Proposed BACT Limit(s)
CO	Good Combustion Practices	350 lb/hr (24-hour block average)
NO <sub>x</sub>	CFB Boiler Technology Selective Non-Catalytic Reduction (SNCR)	0.09 lb/mmBtu (30-day rolling average)
PM <sub>10</sub> /TSP	CFB Boiler Technology Add-On Air Quality Control System (AQCS) Fabric Filter or Electrostatic Precipitator	0.011 lb/mmBtu (3-hour average) 10% opacity
VOC	Good Combustion Practices	14 lb/hr (3-hour average) (whichever is less)
Hg	CFB Boiler Technology SO <sub>2</sub> & PM AQCS's	0.03 lb/hr (6-hour average)
HF	CFB Boiler Technology SO <sub>2</sub> & PM AQCS's	0.43 lb/hr (3-hour average)

**Attachment O**

**Description of Stack Sampling Facilities**

All Emission Units at the Northside Generating Station have stack sampling facilities installed in accordance with Rule 62.297.310 (6) (attached), as required by Air Construction Permit No: 0310045-003-AC.

Rule 62.297.310(6)

(6) Required Stack Sampling Facilities. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

(a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

(b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

(c) Sampling Ports.

1. All sampling ports shall have a minimum inside diameter of 3 inches.

2. The ports shall be capable of being sealed when not in use.

3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.

4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.

5. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

(d) Work Platforms.

1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.

2. On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.

3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.

4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

(e) Access to Work Platform.

1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.

2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.

(f) Electrical Power.

1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.

2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

(g) Sampling Equipment Support.

1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.

a. The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.

b. A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.

c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.

2. A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.

3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

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

(a) General Compliance Testing.

1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal

emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.

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

a. Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,

4. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.

7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to Rule 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to Rule 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to Rule 62-213.300(2)(a)1., F.A.C., or Rule 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in Rule 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

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

(8) Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.

11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  12. The type, manufacturer and configuration of the sampling equipment used.
  13. Data related to the required calibration of the test equipment.
  14. Data on the identification, processing and weights of all filters used.
  15. Data on the types and amounts of any chemical solutions used.
  16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
  18. All measured and calculated data required to be determined by each applicable test procedure for each run.
  19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
  20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
  21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.
- (9) The terms stack and duct are used interchangeably in this rule.

*Specific Authority 403.061 FS. Law Implemented 403.031, 403.061, 403.087 FS. History— Formerly 17-2.700(1)(b), 17-297.310, Amended 11-23-94, 3-13-96, 10-28-97, 3-2-99.*



**Attachment P**

**Compliance Test Reports**

07/03/02

4377 Heckscher Drive  
Jacksonville, Florida 32226-3099



Mr. Wayne Tutt, QEP  
Environmental Program Supervisor  
Air & Water Quality Division  
Regulatory Environmental Services Department (RESO)  
City Hall at St. James  
117 West Duval Street, Suite 225  
Jacksonville, FL 32202

Dear Sir:

RE: Northside Generating Station; Unit #2 - Stack Test Report

Dear Sir;

Enclosed please find the stack test report for Northside Generating Station; Unit #2 operating on petroleum coke fuel. It is noted that the sulfuric acid mist results are in excess of the permit limit. Steps are being taken to correct this situation and retest the unit.

If you have any questions or need additional information, please call Bert Gianazza at 904-665-6247.

Sincerely,

A handwritten signature in black ink that reads 'Joseph W. Werner'. The signature is written in a cursive style.

Joseph W. Werner, PE

Enclosures

cc: Errin Pichard, PE, DEP  
S. Hughes  
R. Stroupe  
C. Crosby  
J. Bennett  
B. Gianazza  
K. Davis  
R. Dyr  
W. Goodrich  
D. Norse  
J. Werner  
File

**Attachment Q**

**Procedures for Startup and Shutdown**

## **PROCEDURES FOR STARTUP AND SHUTDOWN**

Startup and shutdown of the CFBs will be performed according to a written procedure that is currently being developed based on operating experience to describe the best operating practices to be followed and the anticipated emissions for startup and shutdown. This report is due to the DEP within one year after initial startup of Unit 2 per Condition 26 of PSD-FL-265.

**Attachment R**

**Operation and Maintenance Plan**

## OPERATION AND MAINTENANCE PLAN

The operation and maintenance plan for the facility is currently being developed as part of the best operating practices plan. A draft version of the plan is currently under review and will be provided to the FDEP upon review and finalization.

An excerpt of the plan is provided below:

### **Draft Fabric Filter bag Inspection and Diagnostics Procedure**

The following draft procedure is for the regular maintenance and inspection of the Unit 1 and Unit 2 fabric filter bags, and for diagnosing excessive opacity or particulate matter during operation. This procedure is currently being developed based on operating experience of the CFBs and will be maintained in final hard-copy form as part of the Operation and Maintenance (O&M) Plan at the facility once finalized.

#### **Introduction**

Typical bag failures result from tears from external objects, rubbing wear at points where the bag is in contact with other surfaces, rubbing wear where the bag contacts the cage, failure of the bag to remain attached to the tube sheet, melting or fire due to excessive temperature and fabric failure due to fatigue. . External indicators of bag failure include opacity spikes during or after cleaning a compartment, continuously elevated opacity, and excessive particulate matter (PM) emissions. Internal indicators include ash buildup on the tube sheet, ash buildup in the bottom of the bag, melted bags or loss of the bag into the ash hopper.

At the Northside Generating Station, each baghouse has eight compartments that can be individually isolated even while the unit is online to facilitate inspection or perform repairs of the filter bags or other internal components. In the event of a bag or hopper failure, the affected compartment(s) can be isolated and closed to temporarily reduce emissions the repair is being conducted.

#### **Step1: Operational Diagnostics**

During operation, one of the primary indicators of bag failure will be increased opacity. A second indicator would be uncharacteristic particulate test results. Increased opacity or increased PM may be continuous or may occur during a cleaning cycle. In order to identify the cause of excess opacity, it will be necessary to determine if processes such as cleaning or other normal functions that cause excess opacity are being performed. If bag failure is identified as a cause, it is necessary to first identify the compartment that is causing excessive opacity. If the opacity spikes are observed during the baghouse cleaning cycle, it is possible to simply observe which compartment is being cleaned when the spike occurs. This may be made more evident by repeatedly cleaning a suspected compartment. If the compartment cannot be identified, or if the increased opacity or PM appears to be fairly continuous, then verification of opacity measurements is conducted to eliminate the possibility of an invalid opacity reading. If a substantial drop in opacity is observed when a compartment is isolated, then the responsible compartment is identified. It is important to note that more than one compartment may be

responsible for leakage. If opacity measurements can be maintained below excursion levels with the isolation of the identified compartments, operation of the baghouse will be continued.

### **Step 2: Locating a Failed Bag**

To locate a failed bag it is necessary to isolate and enter a baghouse compartment. The decision whether to do this on-line or wait for an outage is made by the responsible parties. Once the compartment with a failed bag has been isolated (with the boiler in or out of service) the compartment covers can be removed. After removing the covers there will be several visual observations that can be used to locate failed bags. The most obvious indication of a failed bag is a buildup of ash on the tube sheet around the failed bag. Other inspections include looking for a bag that is partially full of ash or has fallen off of the tube sheet. Bags sometimes fall off of a tube sheet due to improper installation, but they can also fall off due to ash collection inside the bag. When the bag leaks, ash can accumulate in the bag below the leak. The weight of the bag increases beyond what the attachment can hold and the bag falls off. Under certain circumstances (not typical in this type of baghouse) bags can also be pulled off due to high ash levels covering the bottoms of the bags. As the ash level drops, its weight causes the bag to come loose. Melted bags can easily be identified, and generally the whole compartment or baghouse will be damaged. If no leaks are found, based on the findings of the responsible parties, the compartment can be covered and put back into service, and the process of isolating compartments repeated again.

If no obvious leaks can be found, and the compartment location procedure continues to indicate a problem, then fluorescent powder can be used to locate the leakage. Fluorescent powder is drawn into the flue gas stream either ahead of the baghouse inlet or at the suspected compartment. The compartment is then isolated and the tubesheet and bags are inspected as above except using black light. The fluorescent dye is readily identifiable under black light. If the dye does not indicate a definite location of leakage but shows a uniform coating all over the tube sheet and bags, then it is possible that there is not an isolated bag failure but the bags have reached their fatigue life and are leaking through.

### **Step 3: Bag Replacement**

Once the failed bag or bags are located, the bag(s) should be removed and replaced. Unless the failure mode is obvious the failed bag should be boxed and marked with the unit number, baghouse compartment and removal date. These bags can then be sent off-site to a bag manufacturer and analyzed for failure mode and remaining life. Once the bags are replaced the tubesheet should be vacuumed clean so that future buildup of material on the tube sheet can be used as an indicator of a failed bag.

### **Additional Information**

#### **Annual Outages**

During scheduled annual outages (at least once per year) the fabric filter compartment covers should be removed and each fabric filter compartment should be inspected and cleaned as described above under "Locating a Failed Bag". Even if no failed bags are found, at least one bag from each compartment should be removed, boxed and marked with the unit number,

baghouse compartment and removal date. These bags should be sent off-site to a bag manufacturer and analyzed for remaining life, and if applicable for failure mode. A new bag should be installed in place of any bag removed for sampling or failure. As noted above, upon completion of the compartment inspections the tube sheets should be vacuumed clean so that future buildup of material on the tube sheet can be used as an indicator of a failed bag.

### **Bag Replacement Program**

It is estimated that bag life will typically be between five and seven years. Many operational factors affect bag life. The results of the yearly bag samples can be used to estimate the remaining life of the bags, and to schedule ordering of replacement bags. Decisions must be made about whether a wholesale changeout of all the bags will be performed at the same time, or whether bags will be replaced by compartment on a rotating basis. Economics, supply and outage time typically dictate that bag replacement be done by compartment on a rotating basis. In such case, the first round of bag replacements must be scheduled so that the last compartment will be changed out at the end of its projected life. This process will be initiated as experience with these bags is gained through O&M history and bag analysis.



**COMPLIANCE ASSURANCE MONITORING PROTOCOL  
BAGHOUSE FOR PARTICULATE MATTER CONTROL  
NORTHSIDE GENERATING STATION  
UNITS 1 & 2**

Background

A. Emissions Unit

Description:	(2) 2,764 mmBtu/hr coal and petroleum coke-fired boilers
Identification:	Units 1 (EU027) and 2 (EU026)
Facility:	Northside Generating Station Jacksonville, FL

B. Applicable Regulation, Emissions Limit, and Monitoring Requirements

Regulation:	40 CFR 60, Subpart Da 40 CFR 75 Permit No: 0310045-003-AC (PSD-FL-265)
Emissions Limits:	
Particulate matter:	0.011 lb/mmBtu based on 3-hour average
Opacity:	10% opacity based on 6-minute average
Monitoring Requirements:	Continuous opacity monitoring using a Continuous Opacity Monitoring System (COMS)

C. Control Technology

Each boiler is equipped with a pulse-jet fabric filter for control of particulate emissions. Both boilers exhaust through separate stacks.

Monitoring Approach

The key elements of the monitoring approach for PM are presented in Table 1. The continuous opacity monitoring system (COMS) will be used to assure compliance with the opacity limit. Opacity will also be used as the primary performance indicator for demonstrating compliance with the particulate matter emission limitations.

## **Corrective Action**

The key elements of the Fabric Filter Bag Inspection and Diagnostic Procedures (FFBIDP) as presented in the Operations and Maintenance Plan (O&M Plan) are presented in Table 2. In the event of an excursion, as defined in Table 1, the procedures will be initiated as deemed appropriate to ensure that the indicators are restored to normal operating condition.

**Table 1. Monitoring Approach**

	Compliance Indicator
Indicator	Stack opacity
Measurement Approach	Continuous opacity monitoring system (COMS)
Indicator Range	An excursion is defined as 10 consecutive 6-minute averages of opacity greater than 7.5%.
Performance Criteria	
A. Data Representativeness	Based on available data under normal operation, the representative stack opacity of each unit is < 5 %. An 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.
Data Collection Procedures	The COMs collects a data point every second. The 1-second data are reduced to a 6-minute averages. (10 consecutive 6-minute averages greater than 7.5% indicate an excursion)
F. Averaging Period	One hour.

**Table 2. Corrective Action Procedures Summary**

	Description
I. Initiation of Corrective Action Procedures	Corrective action shall be initiated with the discovery of a 10 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.
II. Time of Completion of Corrective Action Procedures	As soon as practically possible.
III. Corrective Action	<p>The shift supervisor or responsible official will implement the following as a corrective action.</p> <p>Procedures as described in the Fabric Filter Bag Inspection and Diagnostic Procedures (FFBIDP) as presented in the Operations and Maintenance Plan (O&amp;M Plan) includes the following alternatives that will be initiated as necessary.</p> <ul style="list-style-type: none"> <li>• Perform operational diagnostics to identify cause of the excursion.</li> <li>• If operational diagnostics indicate the failure of a bag(s), the failed bag will be identified and the reason for failure will be identified.</li> <li>• If isolation of the compartment can be accomplished to reduce opacity below the excursion, such measures will be undertaken.</li> <li>• In the event of the need for bag replacement, the task will be undertaken based on procedures described in the O&amp;M Plan for the facility.</li> </ul> <p>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.</p>

## MONITORING APPROACH JUSTIFICATION

### I. Background

Units 1 and 2 at JEA's Northside Generating Station are identical, Circulating Fluidized Bed boilers (CFB), each with a rated heat input of 2,764 mmBtu/hr. Both units emit through separate, dedicated stacks and use fluidized bed sulfur capture as well as spray dryer flue gas desulfurization (FGD) for SO<sub>2</sub> control. Fluidized bed boilers are inherently low in NO<sub>x</sub> production because of the low combustion temperature. JEA has also added selective non-catalytic reduction (SCR) equipment for additional NO<sub>x</sub> control. Units 1 and 2 originally became operational in 1965 and 1972, respectively. Both units were repowered as CFB boilers in 2001. Each unit is capable of burning coal and petroleum coke (pet-coke). Both units are also permitted to burn coal and pet-coke mixtures with no limitations on fuel blend ratios. During normal operation, the unit will typically burn 100 percent petroleum coke or a blend of up to 70 percent coke and 30 percent coal.

Both units are subject to 40 CFR 60, Subpart D and 40 CFR 75. The opacity limit for both units, regardless of fuel mix, is 10% based on a 6-minute average. The particulate mass limit for both units, regardless of fuel mix, is 0.011 lb/mmBtu (3-hour average). The mass limit reflects a 10% reduction from the original operating permit as a result of a Community Commitment in the repowering project.

Particulate emissions from each boiler are controlled by a pulse-jet, fabric filter. The fabric filter unit is a Wheelabrator design with eight compartments and a total effective filtering area of 250,000 ft<sup>2</sup>. Each compartment can be independently isolated from the others while the unit is online to facilitate bag cleaning, inspection, and repair. Each compartment also contains a dedicated ash-hopper. Ash is continuously removed from each hopper and transported to a fly-ash silo by pneumatic conveyor.

The fabric filter cleaning system uses a reverse pulse of compressed air to dislodge particulate matter in the filter bags. The system has two modes of operation: on-line and offline. In on-line mode, all compartments are open and a pulse of compressed air is injected into four rows of bags. In off-line mode, one compartment is completely isolated until all rows of bags within that compartment are cleaned. The cleaning sequence is automatically controlled either by pre-set time intervals or pressure differential controller.

### II. Rationale for Selection of Performance Indicators

The primary performance indicator is stack opacity. Opacity is a convenient and common parameter that can be used at any point in time, to indicate whether or not emissions are going up or down. If the opacity is increasing, it can be reasonably assumed that the particulate mass emissions are also increasing.

Although opacity does not quantify actual mass emissions or changes in mass emissions, it can be useful as a parametric surrogate for particulate mass emissions in certain cases. Boilers 1 and

2 are base-loaded units that typically burn the same fuel mixture during normal operating conditions. While the correlation between opacity and mass can vary with the particle size distribution and refractive index of the ash particles, there is little reason to suspect that either of these factors will change during the steady-state operation of either boiler. The opacity/mass correlation should remain relatively constant. As a result, opacity will give a general indication as to the relative change in mass emissions.

## CORRECTIVE ACTION (EXCURSION RESOLUTION) PROCEDURE

### Background

Typical bag failures result from tears from external objects, rubbing wear at points where the bag is in contact with other surfaces, rubbing wear where the bag contacts the cage, failure of the bag to remain attached to the tube sheet, melting or fire due to excessive temperature and fabric failure due to fatigue. External indicators of bag failure include opacity spikes during or after cleaning a compartment, or excessive particulate matter (PM) emissions. Internal indicators include ash buildup on the tube sheet, ash buildup in the bottom of the bag, melted bags or loss of the bag into the ash hopper.

At the Northside Generating Station, each baghouse has eight compartments that can be individually isolated even while the unit is online to facilitate inspection or perform repairs of the filter bags or other internal components. In the event of a bag or hopper failure, the affected compartment(s) can be isolated and closed to temporarily reduce emissions the repair is being conducted.

### Procedure

The following is a discussion of the Corrective Action (Excursion Resolution) Procedure based on the Fabric Filter Bag Inspection and Diagnostic Procedures (FFBIDP) as presented in the Operations and Maintenance Plan (O&M Plan). A hard-copy of the plan is located at the facility site:

#### A. Initiation of Corrective Action

A Corrective Action/Excursion Event is defined as a one-hour average opacity of greater than 7.5% opacity (10 consecutive 6-minute averages). Once a corrective action event has been identified either by audible or visible alarm from the continuous opacity monitoring system, Corrective Action is initiated.

#### B. Notification of shift supervisor or responsible official

The plant employee discovering the corrective action event shall notify the shift supervisor or plant environmental coordinator as soon as possible.

#### C. Fabric Filter Bag Inspection and Diagnostic Procedures (FFBIDP) as presented in the Operations and Maintenance Plan (O&M Plan).

- 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.

#### D. Identification and Resolution of the Corrective Action Event

Once Corrective Action has been taken, the cause of the corrective action event shall be identified and the necessary repairs (if any) shall be made to restore the opacity levels to below excursion levels. At this point, emissions have been reduced and Corrective Action is complete.

#### E. Recordkeeping and Reporting

The shift supervisor and operations personnel are responsible for maintaining records of the start and end of a corrective action event or an excursion. An excursion is defined as a one-hour average opacity greater than 7.5%. An excursion is a reportable event under the Compliance Assurance Monitoring regulation. In the event of an excursion, the plant Environmental Supervisor is responsible for reporting this excursion. The excursion report shall include the date and time interval associated with the excursion and the corrective action initiated. Other details associated with the excursion may be included in the report at the discretion of the Environmental Supervisor. All excursions are to be included in the semi-annual report of compliance status.



## **Draft Fabric Filter bag Inspection and Diagnostics Procedure**

The following draft procedure is for the regular maintenance and inspection of the Unit 1 and Unit 2 fabric filter bags, and for diagnosing excessive opacity or particulate matter during operation. This procedure is currently being developed based on operating experience of the CFBs and will be maintained in final hard-copy form as part of the Operation and Maintenance (O&M) Plan at the facility once finalized.

### **Introduction**

Typical bag failures result from tears from external objects, rubbing wear at points where the bag is in contact with other surfaces, rubbing wear where the bag contacts the cage, failure of the bag to remain attached to the tube sheet, melting or fire due to excessive temperature and fabric failure due to fatigue. . External indicators of bag failure include opacity spikes during or after cleaning a compartment, continuously elevated opacity, and ~~or~~ excessive particulate matter (PM) emissions. Internal indicators include ash buildup on the tube sheet, ash buildup in the bottom of the bag, melted bags or loss of the bag into the ash hopper.

At the Northside Generating Station, each baghouse has eight compartments that can be individually isolated even while the unit is online to facilitate inspection or perform repairs of the filter bags or other internal components. In the event of a bag or hopper failure, the affected compartment(s) can be isolated and closed to temporarily reduce emissions the repair is being conducted.

### **Step1: Operational Diagnostics**

During operation, one of the primary indicators of bag failure will be increased opacity. A second indicator would be uncharacteristic particulate test results. Increased opacity or increased PM may be continuous or may occur during a cleaning cycle. In order to identify the cause of excess opacity, it will be necessary to determine if processes such as cleaning or other normal functions that cause excess opacity are being performed. If bag failure is identified as a cause, it is necessary to first identify the compartment that is causing excessive opacity. If the opacity spikes are observed during the baghouse cleaning cycle, it is possible to simply observe which compartment is being cleaned when the spike occurs. This may be made more evident by repeatedly cleaning a suspected compartment. If the compartment cannot be identified, or if the increased opacity or PM appears to be fairly continuous, then verification of opacity measurements is conducted to eliminate the possibility of an invalid opacity reading. If a substantial drop in opacity is observed when a compartment is isolated, then the responsible compartment is identified. It is important to note that more than one compartment may be responsible for leakage. If opacity measurements can be maintained below excursion levels with the isolation of the identified compartments, operation of the baghouse will be continued.

### **Step 2: Locating a Failed Bag**

To locate a failed bag it is necessary to isolate and enter a baghouse compartment. The decision whether to do this on-line or wait for an outage is made by the responsible parties. Once the

compartment with a failed bag has been isolated (with the boiler in or out of service) the compartment covers can be removed. After removing the covers there will be several visual observations that can be used to locate failed bags. The most obvious indication of a failed bag is a buildup of ash on the tube sheet around the failed bag. Other inspections include looking for a bag that is partially full of ash or has fallen off of the tube sheet. Bags sometimes fall off of a tube sheet due to improper installation, but they can also fall off due to ash collection inside the bag. When the bag leaks, ash can accumulate in the bag below the leak. The weight of the bag increases beyond what the attachment can hold and the bag falls off. Under certain circumstances (not typical in this type of baghouse) bags can also be pulled off due to high ash levels covering the bottoms of the bags. As the ash level drops, its weight causes the bag to come loose. Melted bags can easily be identified, and generally the whole compartment or baghouse will be damaged. If no leaks are found, based on the findings of the responsible parties, the compartment can be covered and put back into service, and the process of isolating compartments repeated again.

If no obvious leaks can be found, and the compartment location procedure continues to indicate a problem, then fluorescent powder can be used to locate the leakage. Fluorescent powder is drawn into the flue gas stream either ahead of the baghouse inlet or at the suspected compartment. The compartment is then isolated and the tubesheet and bags are inspected as above except using black light. The fluorescent dye is readily identifiable under black light. If the dye does not indicate a definite location of leakage but shows a uniform coating all over the tube sheet and bags, then it is possible that there is not an isolated bag failure but the bags have reached their fatigue life and are leaking through.

### **Step 3: Bag Replacement**

Once the failed bag or bags are located, the bag(s) should be removed and replaced. Unless the failure mode is obvious the failed bag should be boxed and marked with the unit number, baghouse compartment and removal date. These bags can then be sent off-site to a bag manufacturer and analyzed for failure mode and remaining life. Once the bags are replaced the tubesheet should be vacuumed clean so that future buildup of material on the tube sheet can be used as an indicator of a failed bag.

### **Additional Information**

#### **Annual Outages**

During scheduled annual outages (at least once per year) the fabric filter compartment covers should be removed and each fabric filter compartment should be inspected and cleaned as described above under "Locating a Failed Bag". Even if no failed bags are found, at least one bag from each compartment should be removed, boxed and marked with the unit number, baghouse compartment and removal date. These bags should be sent off-site to a bag manufacturer and analyzed for remaining life, and if applicable for failure mode. A new bag should be installed in place of any bag removed for sampling or failure. As noted above, upon completion of the compartment inspections the tube sheets should be vacuumed clean so that future buildup of material on the tube sheet can be used as an indicator of a failed bag.

### **Bag Replacement Program**

It is estimated that bag life will typically be between five and seven years. Many operational factors affect bag life. The results of the yearly bag samples can be used to estimate the remaining life of the bags, and to schedule ordering of replacement bags. Decisions must be made about whether a wholesale changeout of all the bags will be performed at the same time, or whether bags will be replaced by compartment on a rotating basis. Economics, supply and outage time typically dictate that bag replacement be done by compartment on a rotating basis. In such case, the first round of bag replacements must be scheduled so that the last compartment will be changed out at the end of its projected life. This process will be initiated as experience with these bags is gained through O&M history and bag analysis.

**Attachment S**

**Compliance Assurance Monitoring Plan**

**Attachment T**

**Acid Rain Part Application**



# Certificate of Representation

For more information, see instructions and refer to 40 CFR 72.24

This submission is:  New  Revised (revised submissions must be completed in full; see instructions)

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

### STEP 1

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

Plant Name	Northside Generating Station	State	FL	ORIS Code	0667
------------	------------------------------	-------	----	-----------	------

### STEP 2

Enter requested information for the designated representative.

Name	James Chansler, VP of Operations				
Address	21 West Church Street Jacksonville, FL 32202				
Phone Number	(904) 665-4433	Fax Number	(904) 665-6731		
E-mail address (if available)	chanjm@jea.com				

### STEP 3

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

Name	Susan Hughes, VP of Environmental Services				
Phone Number	(904) 665-6248	Fax Number	(904) 665-7376		
E-mail address (if available)	hughsn@jea.com				

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

I certify that I have given notice of the agreement, selecting me as the 'designated representative' for the affected source and each affected unit at the source identified in this certificate of representation, in a newspaper of general circulation in the area where the source is located or in a State publication designed to give general public notice.

I certify that I have all necessary authority to carry out my duties and responsibilities under the Acid Rain Program on behalf of the owners and operators of the affected source and of each affected unit at the source and that each such owner and operator shall be fully bound by my actions, inactions, or submissions.

I certify that I shall abide by any fiduciary responsibilities imposed by the agreement by which I was selected as designated representative or alternate designated representative, as applicable.

I certify that the owners and operators of the affected source and of each affected unit at the source shall be bound by any order issued to me by the Administrator, the permitting authority, or a court regarding the source or unit.

combustion or process source is located.

where there are multiple holders of a legal or equitable title to, or a leasehold interest in, an affected unit, or where a utility or industrial customer purchases power from an affected unit under life-of-the-unit, firm power contractual arrangements, I certify that:

**Best Available Copy**

I have given a written notice of my selection as the designated representative or alternate designated representative, as applicable, and of the agreement by which I was selected to each owner and operator of the affected source and of each affected unit at the source; and

Allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement or, if such multiple holders have expressly provided for a different distribution of allowances by contract, that allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in accordance with the contract.

The agreement by which I was selected as the alternate designated representative, if applicable, includes a procedure for the owners and operators of the source and affected units at the source to authorize the alternate designated representative to act in lieu of the designated representative.

Plant Name (from Step 1) Northside Generating Station

Certificate - Page 2  
Page 2 of 2

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

Signature (designated representative) <i>Tom M. Charles</i>	Date 9-28-01
Signature (alternate designated representative) <i>Susan H. Hughes</i>	Date 9/29/01

**STEP 5**

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

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

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

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

# Phase II Permit Application

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

This submission is:  New  Revised

**STEP 1**

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

Plant Name	Northside Generating Station	State	FL	ORIS Code	0667
------------	------------------------------	-------	----	-----------	------

**STEP 2** Enter the boiler ID# from NADB for each affected unit and indicate whether a repowering plan is being submitted for the unit by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e.

Compliance Plan				
a	b	c	d	e
Boiler ID#	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	Repowering Plan	New Units Commence Operation Date	New Units Monitor Certification Deadline
1a	Yes		May 2002	August 2002
2a	Yes		February 2002	May 2002
1	Yes			
2	Yes			
3	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

**STEP 3**

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

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



Plant Name (from Step 1)

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.

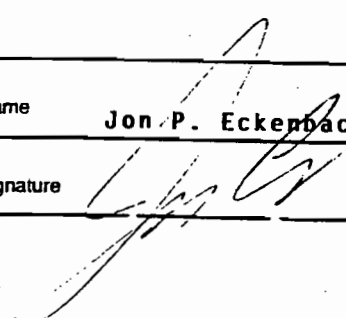
- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject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

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

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

Certification

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

Name	Jon P. Eckenbach, Executive Vice President	
Signature		Date 12/31/00