

JEA
NORTHSIDE GENERATING STATION
ST JOHNS RIVER POWER PARK

**Supplemental Information Package for
Title V Renewal Application**

September 2003



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21 West Church Street
Jacksonville, Florida 32202-3139

September 10, 2003

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BUREAU OF AIR REGULATION



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

RE: Northside Generating Station/St Johns River Power Park
Title V Permit Renewal (0310045-008-AV)
Supplemental Information

WATER

Dear Mr. Sheplak:

SEWER

Enclosed please find an original and four (4) copies of a supplemental information package and a revised Statement of Compliance for our Title V Operating Permit Renewal for the Northside Generating Station/St. Johns River Power Park submitted on June 19, 2003.

For the June 19, 2003 renewal application submittal, compliance issues that had previously been reported to RESD, the local regulating agency responsible for enforcement, were not included in the Compliance Report and Plan. Based on subsequent discussions with FDEP and RESD personnel, the Compliance Report and Plan included in Attachment V of the application should have included a summary of non-compliance items dating from the last Title V compliance certification period (ending December 31, 2002) to the date of application submittal and should include non-compliance items that RESD had already been made aware of and which JEA is working with RESD to resolve. Therefore, please replace the compliance report and plan (Attachment K) and the compliance certification (Attachment L) of the renewal application with the enclosed revised compliance report and plan, and compliance certification.

The Title V renewal application included information on the limestone feed system vent filters that were designated EU054. This process equipment was not included as an emissions unit in the PSD permit or PSD permit application and therefore has not been given an emissions unit number by FDEP. Based on discussions during a July 2, 2003 meeting with FDEP and RESD personnel and further review of this process equipment, it was determined that this equipment should have been included as an insignificant activity rather than as an emissions unit. Please remove information regarding the limestone feed system vent filters (EU054) contained on pages 247 through 259 of the Title V renewal permit application, and replace pages 5 and 7 of the application forms and Attachment F (List of Insignificant Activities) of the application with the enclosed revised pages. A revised page 247 that can be used as an indicator of this change is also enclosed. The information in revised Attachment F provides the basis for listing this process equipment as an insignificant activity.

Specific condition 31 of PSD-FL-265 is silent as to the minimum number of data points required to establish a valid 24-hour average. The EPA reference method for SO2 stack testing requires

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three 1-hr runs for a valid test. We request that clarifying language be added to the Title V permit that at least three (3) hours of data are required to establish a 24-hour average for CEMs data.

For the limestone dryer/mills (EU-033), per Condition 30(b) of Construction Permit PSD-FL-265 an initial compliance test conducted while firing fuel oil in the dryers is required to demonstrate compliance with the visible emissions limit for the limestone dryer/mills. This emissions unit was permitted to fire both natural gas and fuel oil. Because the capability to fire fuel oil in these units has not yet been constructed, the initial compliance test used to demonstrate compliance with the visible emissions limit was conducted with natural gas. As indicated in the attached revised compliance report and plan (Attachment K), the appropriate initial emissions compliance test will be conducted within 60 days from the first date fuel oil is fired in the limestone dryer/mills. Please replace page 139 of the application with the enclosed revised corresponding page.

The following compliance tests were inadvertently left out of the initial compliance testing at NGS or testing was delayed because problems arose when attempting to conduct the initial compliance test. As indicated in the revised compliance plan, these compliance tests will be completed as soon as practicable and appropriate test report submittals will be made. Please replace Attachment P of the application, which includes a table summarizing the compliance testing and test report submittal dates, with the enclosed revised Attachment P.

- Method 22 on the limestone prep building.
- Method 5 on the Limestone Silo Bin Vent Filters (EU035)
- Method 9 on the Limestone Reclaim Hoppers (EU028p)
- Method 9 on the Plant Transfer Building (EU028o)

Finally, please be advised that arrangements are being made ^{to} perform stack testing in order to obtain an exemption from CAM for the limestone dryer mills (EU-033) in accordance with EPA guidance (please see item 4 under section 2.0 "Application Review Points" at the beginning of the attached supplemental information package). The CAM plans for the main steam units at NGS and SJRPP can be found in Attachment R of the original application.

If you have any questions or need additional information, please call me at (904) 665-6247.

Sincerely,



N. Bert Gianazza, P.E.
Environmental Services

Enclosures

cc: Bruce Mitchell, P.E., FDEP (w/o Atta.)
Richard Robinson, P.E., RESD (w/o Atta.)

JEA Northside Generating Station and St Johns River Power Park Title V Renewal Application

1.0 INTRODUCTION

This Title V Permit renewal application is for the Northside Generating Station (NGS) and St Johns River Power Park (SJRPP) located in Jacksonville, Florida. As required by Florida Administrative Code regulations, JEA has prepared the Title V Operating Permit Renewal Application on the forms provided by the Florida Department of Environmental Protection (FDEP). Supplementary Appendices are included to support the information contained in the application forms.

The facility is currently operating under Title V Operation Permit Number 0310045-008-AV and Construction Permit Nos. PSD-FL-265 (3010045-003-AC) and PSD-FL-265A. Construction Permit No. PSD-FL-265 and PSD-FL-265A were issued to cover the repowering of NGS Units No. 1 and 2 to circulating fluidized bed (CFB) boilers No. 1 and 2 and ancillary equipment. An application for a Title V operation permit revision to cover the emissions units installed under Construction Permits PSD-FL-265 and PSD-FL-265A was previously submitted to FDEP, however a revised Title V permit has not yet been issued. This Title V renewal application includes information included in the Title V revision application as well as information on the remainder of the facility.

2.0 APPLICATION REVIEW POINTS

To assist in the Title V renewal process, we are presenting what we perceive to be the major points that will arise in processing the renewal application. These review points are presented below as well as a summary of how each is addressed in the permit application.

1. The Repowering project construction permit application included two scenarios for the materials handling operations. The base case scenario was used. While the base case scenario included a total of ten transfer buildings, a total of seven transfer buildings were included in the final construction (labeled Transfer Buildings No. 1 through 6 and the Plant Transfer Building). The PSD construction permit gives an opacity limit and test requirements to transfer towers as a group.
Addressed in application: Emissions Unit Information Section 3a indicates that ten transfer buildings were included in the PSD application base case scenario and seven transfer buildings were constructed and lists the transfer buildings with requested JEA nomenclature.
2. The as-built limestone transfer to the storage pile is via telescopic chute rather than a lowering well.
Addressed in application: Covered in application forms Emissions Unit Information Section 3a and in Construction/Modification part of Section I of the application. Application forms Emissions Unit Information Section 3a indicates limestone loadout is part of Transfer Building No. 5. (as was the case in the PSD construction permit application).

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3. The NGS limestone feed system includes process equipment referred to as limestone feed system vent filters that were not included in the original PSD application or PSD permit. The limestone system vent filters are used to collect limestone dust and return it to the limestone feed system. They are located between the limestone storage silos and the injection of limestone into the CFBs. This equipment is included on the list of insignificant activities in Attachment F of the renewal application.

Addressed in application: Discussed in Construction/Modification part of Section I of the application and covered in Attachment F.

4. CAM Plans:

Addressed in application: CAM Plans are included in Attachment R of the application. CAM Plans are included for particulate matter for NGS CFB Nos. 1 and 2 (EU026 and EU027) and for SJRPP Unit Nos. 1 and 2 (EU016 and EU017). Arrangements are being made to perform stack testing to show that the limestone dryer/mill (EU033) fabric filters qualify for an exemption from CAM because the fabric filters meet the following criteria used to make the determination whether they are considered inherent to the operation.

- a. Is the primary purpose of the equipment other than to control emissions relative to the applicable emissions limit. (e.g. product recovery, worker safety)? Yes, the fabric filter serves to recover limestone that would otherwise be lost from the process.
- b. Would the equipment be installed if there were no applicable emissions limit in place for the pollutant specific emissions unit? Yes, the loss of limestone would be too great without use of the fabric filters to recover limestone from the limestone dryer/mill exhaust.
- c. Is the efficiency at which the equipment is operated by design for purposes other than compliance with the applicable emissions limit more than sufficient to assure compliance with the applicable emissions limit (e.g., a significant margin of compliance)? Scheduled testing will determine whether the fabric filter operation provides a significant margin of compliance.

5. In completing the compliance testing required by Construction Permit PSD-FL-265, it was found that it was not possible to conduct a few of the specified compliance tests. The following list summarizes the compliance tests that were not performed.

- Method 5 testing of EU034 is not possible under the current configuration. JEA will perform the required stack testing after installation of the required test ports. This is addressed in Attachment K of this application.
- Method 22 testing of the limestone dryer building was not conducted during the initial compliance testing, as an observer could not get an adequate sight line of the building vents from a position on the ground. Based on discussions during a July 2, 2003 meeting with FDEP and RESD personnel, the Method 22 testing will be conducted with the observer located at an elevated position on the plant site and the test report will be submitted as soon as it becomes available.
- Initial Method 9 compliance testing on EU033 was conducted while firing natural gas rather than fuel oil, as these systems are not yet capable of firing fuel oil. Appropriate testing will be conducted within 60 days of the first day fuel oil is fired in these units. This is addressed in the compliance report and plan included in Attachment K.

Addressed in application: Discussed in Emissions Unit Information Section 6 for EU033 and Section 7 for EU034, in Attachment P and in the compliance report and plan in Attachment K.

6. The VE test on EU0280 (Plant Transfer Building) and the PM tests on EU035 were inadvertently omitted from the initial compliance testing. The compliance tests for these emission units will be conducted as soon as practicable.
Addressed in application: Covered in Emissions Unit Information Section 8 for EU035, in Attachment P and in Attachment K.
7. In initial compliance testing a Method 9 was done for the limestone storage pile, however a Method 9 test on the limestone reclaim hoppers was inadvertently omitted. The compliance test for the limestone reclaim hoppers will be conducted as soon as practicable.
Addressed in application: Covered in Emissions Unit Information Section 3b, in Attachment P and in Attachment K.
8. Existing Title V Permit 0310045-008-AV includes evaporation of on-site generated boiler non-hazardous cleaning chemicals as an insignificant emissions unit and/or activity for NGS Boilers Nos. 1, 2 and 3 and SJRPP Boilers Nos. 1 and 2.
Addressed in application: Addressed as an insignificant activity in Attachment F and included in narrative for Emissions Unit Information Sections 1, 2, 17, 22 and 23 for NGS CFB Nos. 1 and 2, NGS Boiler No. 3 and SJRPP Boilers Nos. 1 and 2, respectively.
9. Based on previous correspondence with FDEP, use of coal treated with a latex binder at SJRPP is allowed based on the fact that FDEP determined that the binder falls under the classification of "chemical dust suppressant" and that its use was already allowed under the Title V permit. JEA would like to have the flexibility of using coal treated with the same types of binders in the NGS CFB Nos. 1 and 2.
Addressed in application: For SJRPP Boilers Nos. 1 and 2, the use of coal treated with binders is discussed in the narrative for Emissions Unit Information Section 22 and 23. JEA has submitted a separate construction permit application seeking approval of use of coal treated with a binder(s) in NGS CFB Nos. 1 and 2.
10. In the event that fly ash or bed ash needs to be loaded into trucks, the loadout system is equipped with an emissions capture system that is used to direct particulate matter back to the respective silo where emissions are controlled by the silo dust collector. Therefore, fly ash and bed ash loadout are part of the respective fly ash and bed ash silo emission units.
Addressed in application: Discussed in Emissions Unit Information Sections 10 and 11 for EU037 and EU038, respectively.
11. JEA previously submitted a construction permit application to allow for the flexibility to transfer fuel between NGS and SJRPP via trucks. The FDEP response to this construction permit application indicated that this activity would be considered an insignificant activity. JEA requests that the renewed Title V application include this activity in the list of insignificant activities.
Addressed in application: This activity is included in the list of insignificant activities in Attachment F of the application.
12. Future anticipated activities at SJRPP include removal of landfilled material (ash) for use off-site. A front-end loader will be used to dig the ash and load the material directly on licensed

dump trucks which will haul the ash off-site. The stockpiled ash is expected to be moist and dust free.

Addressed in application: This activity is included in the list of insignificant activities in Attachment F of the application.

13. The renewed Title V permit should reflect removal of the equipment and emission units associated with the limestone dumping from the SJRPP dumper (listed as #18 in PSD Revised Table 6 – see Attachment T).

Addressed in application: Discussed in Emissions Unit Information Sections 25 for EU022.

3.0 NOTES ON EXISTING PERMIT CONDITIONS

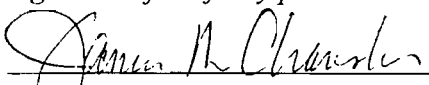
As part of the renewal process, JEA is requesting that the Department consider the following comments on existing NGS and SJRPP permit conditions.

1. JEA recommends removing all conditions relating to EU001 and EU002 from the renewed Title V permit as these are no longer active emissions units. EU001 and EU002 will be used to track baseline data for old NGS Boiler No. 1 and old NGS Boiler No. 2, respectively.
2. JEA recommends removing condition A.3.b of operation permit 0310045-008-AV from the renewed operation permit. With the removal of EU001 and EU002 it is impossible to exceed the residual fuel oil consumption limit given in this condition.
3. Condition A.5 of Operation Permit 0310045-008-AV gives a VE standard and requires an annual PM compliance test. JEA recommends removing the reference to particulate matter testing from this condition since the condition gives a VE standard. Note that compliance testing requirements are given elsewhere in the permit.
4. JEA recommends that condition A.39 of Operation Permit 0310045-008-AV be modified to require reporting pertaining to use of “on-specification” used oil use only in years when “on-specification” used oil is fired. i.e. add “In years in which “on-specification” used oil is fired,” to the beginning of condition A.39 of operation permit 0310045-008-AV. Since there are years in which no “on-specification” used oil is fired, the need to report that “on-specification” used oil was not used can be avoided.
5. JEA recommends not including Condition A.41 of Operation Permit 0310045-008-AV in the renewed operation permit as it applies when all three main NGS boilers and the auxiliary boiler are operated simultaneously. Because EU001 and EU002 have been removed from service, this condition is no longer valid.
6. JEA recommends removing conditions relating to the auxiliary boiler (EU014), as it has been removed from service.
7. JEA recommends changing condition C.9 of operation permit 0310045-008-AV from “The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor upon each fuel delivery.” to “The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis for each

fuel delivery.” As long as the required analysis methods are used it should not matter if the analysis is provided by the vendor or if the facility has the analysis done.

8. Conditions D.68, D.69 and D.70 require the submittal of reports over a defined number of years. If the required submittals have been made and no more submittals are required, JEA recommends that these conditions be removed from the renewed operation permit.

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 <u>9.8.03</u>

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: N. 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 [X], 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

9/8/03
Date

(seal)

* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
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
	Removed reference to limestone feed system vent filters – EU054		
003	NGS – Boiler No. 3	NA	NA
006	NGS – Combustion Turbine No. 3	NA	NA
007	NGS – Combustion Turbine No. 4	NA	NA
008	NGS – Combustion Turbine No. 5	NA	NA

Construction/Modification Information

1. Description of Proposed Project or Alterations:

This application is for renewal of the facility Title V air operation permit. A Title V revision application was submitted to the FDEP dated August 5, 2002. The Title V revision application was associated with construction conducted under construction permit PSD-FL-265 and the application for construction permit PSD-FL-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.
- Loading to the limestone storage pile (EU028d) is by telescopic chute rather than with a lowering well. Limestone transfer via telescopic chute is included with Transfer Building No. 5.
- 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).
- Process equipment referred to as limestone feed system vent filters was installed to collect limestone dust and return it to the limestone feed system. This process equipment is located between the Limestone Silos and the injection of limestone into the CFBs. This process equipment is included as an insignificant activity in Attachment F of 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:

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 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 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.</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): Material handling and storage operations consisting of Vessel Hold (EU028a), Vessel Unloader and Spillage Conveyor (EU028a), Limestone Storage Pile (EU028p) and Limestone Reclaim Hoppers (EU028p).</p>			
<p>4. Emissions Unit Identification Number: <input type="checkbox"/> No ID</p> <p>ID: 028 <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 information section includes emissions unit 28 emission sources that have a 10% opacity limit. These emission sources include the following:</p> <ul style="list-style-type: none"> • Vessel Hold (EU028a) (referred to as Shiphold in construction permit PSD-FL-265) • Vessel Unloader and Spillage Conveyor (EU028a) • Limestone Storage Pile (EU028p) • Limestone Reclaim Hoppers (EU028p) 			

**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 and EU28a		2. Emission Point Type Code: 4	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):			
<ul style="list-style-type: none"> • Vessel Hold (EU028a) (referred to as Shiphold in construction permit PSD-FL-265) is the hold of the vessel from which the material is being unloaded at the new Northside dock. • Vessel Unloader and Spillage Conveyor (EU028a) includes the vessel unloading operations at the new Northside dock. • Limestone Storage Pile (EU028p) • Limestone Reclaim Hoppers (EU028p) 			
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	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): Fugitive emissions from the vessel hold and the vessel unloader and spillage conveyors are associated with limestone, coal and pet coke unloading operations at the new Northside dock. Fugitive emissions from the limestone storage pile include emissions from loading to the pile via a telescopic chute, emissions resulting from wind erosion and emissions from pile maintenance. Fugitive emissions from the limestone reclaim hoppers include emissions from removal of limestone from the pile via the limestone reclaim hoppers.			

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

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Vessel Hold - Coal or Pet Coke Vessel Unloader and Spillage Conveyor – Coal or Pet Coke		
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 limit of 2.42 million tons per year coal/pet coke included in construction permit PSD-FL-265.		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Vessel Hold - Limestone Vessel Unloader and Spillage Conveyor – Limestone		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons handled
4. Maximum Hourly Rate:	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.		

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

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Limestone storage pile – limestone (EU028p)		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons handled
4. Maximum Hourly Rate:	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 4 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Limestone reclaim hoppers – limestone (EU028p)		
2. Source Classification Code (SCC): 30501099		3. SCC Units: Tons handled
4. Maximum Hourly Rate:	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.		

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: V10	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input checked="" type="checkbox"/> 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, initial visible emissions compliance testing 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 the Vessel Hold, Vessel Unloader and Spillage Conveyor, the Limestone Storage Pile and the Limestone Reclaim Hoppers. The visible emissions limit along with compliance determination requirements are included in construction permit PSD-FL-265 and PSD-FL-265A.	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: V05	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 EPA Method 9, initial visible emissions compliance testing was conducted to show compliance with the visible emissions limit.	
5. Visible Emissions Comment (limit to 200 characters): This 5% opacity limit is from Rule 62-296.711 and applies to affected facilities when processing coke.	

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

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 Method 9, an initial compliance test was conducted. Because fuel oil has not yet been fired and the dryers are not yet set up to physically fire fuel oil, the initial compliance tests were conducted while firing natural gas. Construction permit PSD-FL-265 requires an initial VE compliance testing while operating on fuel oil. <u>JEA will conduct the required VE test when operating with fuel oil within a specified time frame following initial firing of fuel oil in these emissions units. This is addressed in the compliance plan included in Attachment K.</u> 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.	

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

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

2. Visible Emissions Subtype: V07	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: 7 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Using Method 9, an initial compliance test was conducted.	
5. Visible Emissions Comment (limit to 200 characters): This visible emissions limit is from NSPS Subpart OOO.	

**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: 99.5%
3. Potential Emissions: 0.13 lb/hour	4. Synthetically Limited? [] 0.58 tons/year
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 0.16086 lb/ton (per train – combination of transfer points, screening operation and silo loading) Reference: AP-42, Section 11.19.2	7. Emissions Method Code: 3
8. Calculation of Emissions (limit to 600 characters): Emission factor for conveyor transfer points and fines screening from AP-42 Section 11.19.2, Table 11.19.2-2 (per footnote c of Table 11.19.2-2, PM emission factors were estimated by multiplying the PM ₁₀ emission factors by 2.1) PM Hourly emissions rate per limestone prep train: [(3 transfer points)(0.00294 lb/ton) + (1 screening operation)(0.1491 lb/ton) + (1 silo loading)(0.00294 lb/ton)](55 ton/hr)(1-0.995) = (0.16086 lb/ton)(55 ton/hr)(1-0.995) = 0.044 lb/hr For all three trains combined PM emissions = (0.044 lb/hr/train)(3 trains) = 0.13 lb/hr PM Annual emissions rate (all trains combined): (1,450,000 ton/yr)(0.16086 lb/ton)(1-0.995)(ton/2,000 lb) = 0.58 ton/yr	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): The PSD permit application based the emissions estimate for EU034 on emission factors from AP-42 Section 11.17 (Lime Manufacturing). The calculations presented here are based on emission factors from Section 11.19.2 for Crushed Stone Processing. Because limestone falls under the definition of crushed stone, the use of these emission factors should be more representative of the EU034 processes. Further, it is stated on page 11.17-4 of AP-42 Section 17 that “the emission factors in Section 11.19 are based on more recent testing, and, therefore, may be more representative of emissions from stone crushing, grinding and screening.” In lieu of an emission factor for silo loading, the conveyor transfer point emission factor was used. Also, a more conservative 99.5% baghouse control efficiency was used. Equivalent pound per hour and ton per year emissions are given for informational purposes only and do not constitute limits.	

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: 0.01 grains per dry standard cubic foot	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters): Due to the configuration of this emissions point, an initial Method 5 compliance test has not been completed. As discussed in Attachment K, JEA will perform the required stack test after installation of required test ports.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The particulate matter emissions limit and compliance determination requirements are included in construction permit PSD-FL-265.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions
4. Requested Allowable Emissions and Units: 0.05 grains per dry standard cubic foot	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters): Due to the configuration of this emissions point, an initial Method 5 compliance test has not been completed. As discussed in Attachment K, JEA will perform the required stack test after installation of required test ports.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): This particulate matter emissions limit is from NSPS Subpart OOO.	

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 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 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 System Vent Filter Exhaust			
4. Emissions Unit Identification Number: <input type="checkbox"/> No ID ID: <input type="checkbox"/> ID Unknown			
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit? <input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			
The Emissions Unit Information Section (pages 247 through 259) for the limestone feed system vent filters was removed as part of the September, 2003 supplemental information submittal. This equipment is instead included as an insignificant activity in Attachment F.			

Attachment F

List of Insignificant and Unregulated Activities

List of Insignificant and Unregulated Activities

List of Unregulated Emission Units/Activities

Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

Brief Description of Emissions Units and/or Activities:

I. Northside Generating Station.

-aaa Storage Tanks.

1. JEA Tank	Bunker C Storage	4,578,000 gallons
2. JEA Tank #12	Diesel Storage	4,200,000 gallons
3. JEA Tank #13	Diesel Storage	4,200,000 gallons
4. JEA Tank #14	Diesel Storage	4,200,000 gallons
5. JEA Tank	Bunker C Storage	4,578,000 gallons
6. JEA Tank	Bunker C Storage	4,578,000 gallons
7. JEA Tank	Bunker C Storage	11,256,000 gallons
8. JEA Tank	Bunker C Storage	11,256,000 gallons
9. JEA Tank	Bunker C Storage	11,256,000 gallons
10. JEA Tank #11	Diesel Storage	4,200,000 gallons
11. JEA Tank	Bunker C Storage	4,578,000 gallons

II. St. Johns River Power Park.

-bbb Storage Tanks.

1. JEA Tank: Emergency Diesel Fire Pump	Diesel Fuel Storage	1,123 gallons
2. JEA Tank: AQCS Emergency Diesel Generator Day Tank	Diesel Fuel Storage	561 gallons
3. JEA Tank	Diesel Fuel Storage	636,106 gallons
4. JEA Tank: Coal/Limestone Fuel Storage	Diesel Fuel Storage	10,069 gallons
5. JEA Tank: Ash Landfill Fuel Storage	Diesel Fuel Storage	10,069 gallons
6. JEA Tank: Power Block Emergency Generator Fuel Storage	Diesel Fuel Storage	4,015 gallons
7. JEA Tank	Gasoline Storage	10,069 gallons

List of Proposed Insignificant Activities

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities:

St. Johns River Power Park AQCS Emergency Generator.

The emergency generator has historically fired less than 10,000 gallons per year of diesel fuel. The emergency generator draws its fuel from a single diesel fuel oil storage tank (the fuel oil has a maximum fuel sulfur content limit of 0.76%, by weight).

St. Johns River Power Park Power Block Emergency Generator.

The emergency generator has historically fired less than 10,000 gallons per year of diesel fuel. The emergency generator draws its fuel from a single diesel fuel oil storage tank (the fuel oil has a maximum fuel sulfur content limit of 0.76%, by weight).

NGS Boilers Nos. 1, 2 and 3, and SJRPP Boilers Nos. 1 and 2.

Evaporation of on-site generated boiler non-hazardous cleaning chemicals (cirtosolv and ammonia). This activity occurs once every three to five years or longer.

NGS and SJRPP Solid Fuel Handling.

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

SJRPP Removal of Landfilled Material.

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

NGS Limestone Feed System Vent Filter Exhaust.

Emissions from this equipment are far below the threshold level of 5 tons per year (tpy) given in 62-213.430(6)(b).3 for classifying an activity as insignificant. See the discussion at the end of this attachment.

SJRPP Emergency Diesel Fire Pump

This equipment falls under the category of fire and safety equipment.

Lube oil storage

Hypochlorite storage

Sulfuric acid storage

Caustic storage

Mineral acid storage

Magnesium oxide storage

Petrolite storage

Hydrazine storage

Indoor sand blasting and abrasive grit blasting where temporary enclosures are used to contain particulates

Coal pile runoff ponds

Open stockpiling of material

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 equip.

Main steam pressure/relief valves; steam from boiler operations

Indoor fugitives such as vacuum cleaning, solvent storage, office supplies/equipment

Testing equipment such as CEMs, stack sampling calibration gases, oxygen detector

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
- Degasifier/deaerators/decarbonators
- Air blowers/evacuators/air locks
- Feedwater heater vents

Transformers, switches, and switchgear processing (including cleaning and changing)

Use of nitrogen cap during boiler shut-down

Generator venting

Vent/exhaust from kitchen and breakrooms

Vents/stacks for sewer lines or enclosed areas req. for safety or by code

Electrically heated equipment used for heat treating, tracing, drying, soaking, case hardening or surface conditioning

Sewage treatment fac./equip. ranging in size from porta-john to sewage treatment plants

Steam releases

Storage and use of chemicals solely for water/waste water treatment

Neutralization basins/ponds, ash pits/ponds, TETF/ENU, percolation, equalization

Transfer sumps

Firefighting training facilities Turbine vapor extractor

Lawn maintenance equipment/activities

Application of fungicide, herbicide, pesticide

Air compressors and centrifuges used for compressing air

Handling and removal of clinkers, slag and bottom ash

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

Hydrogen and acid venting from battery rooms vacuum vents for gypsum dewatering bldg.

Flue gas desulfurization system absorber feed tank mist eliminator/spray header vent

Renovation/demolition of asbestos

Fires

Chemical spills, leaks & transfers

Oil spills, leaks & change out

Insulating activities

Asphalt or concrete sealing

High pressure water blasting

Excavation 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

Emissions from portable equipment

- Welding machines (diesel or gas)

- Pumps (diesel or gas)

Sweeping

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

Bottom ash removal (from boilers)

Fuel oil storage tank cleaning

Small parts washing using parts washer

A/C servicing by licensed contractor

Searching for condenser leaks using helium

Stack washing (water, soot)

Cleaning and dewatering of ash basins (heavy equipment/pumps)

Engine rebuilding

Lube oil changes

Receiving fuel oil (trucks & pipeline)

Aerosol can use (cleaners, etc.)

Boiler chemical cleaning (cirtosolv & ammonia)

Sootblowing

Liming the boilers (CaOH)

Turbine washing

Boiler gun cleaning (guns dipped into vats of solvent)

Vehicle servicing (oil changes, antifreeze changes, etc.)

Soldering of electrical components (silver, tine solder)

Portable equipment and tools, including electric and gasoline powered

Electro plating

Welding, grinding and cutting activities (metal fumes)

Machining metal parts (cutting oil, metal fumes)

Cleaning condensers (water vapor, "snoop")

Oil spills (#6, #2, turbine lube oil)

Oil-filled electrical equipment vents

Storage and use of boiler chemicals (phosphates, ammonia, hydrazine, magnesium oxide, sodium triphosphate, 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

Lime storage silo

Basis for designating the limestone feed system vent filters as an insignificant activity

The limestone feed system vent filters are part of the limestone feed process and are located downstream of the Limestone Feed Silos (EU035) and prior to limestone injection into the circulating fluidized bed (CFB) boilers. The limestone feed system vent filters are used to collect limestone dust and return it to the limestone feed process. There is a total of six limestone feed system vent filters, three per CFB. The intake to the limestone feed system vent filters is from pickup points on limestone rotary feeders. The estimated pre-filter and post-filter particulate matter (PM) and PM₁₀ emissions are shown in the following table. An emission factor from AP-42 Section 11.19 Crushed Stone Processing (dated 1/95) was used to estimate PM and PM₁₀ in the vent filter exhaust. The AP-42 emission factor for a transfer point most closely matches this operation. The emission estimates show that based on the annual permitted limestone use rate of 1.45 million tons per year, potential emissions of PM and PM₁₀ for all limestone feed system vent filters combined are 0.02 and 0.01 tons per year, respectively. This analysis demonstrates that emissions of PM and PM₁₀ are far below the threshold level of 5 tons per year (tpy) given in 62-213.430(6)(b).3 for classifying an activity as insignificant. The following table also shows that pre-filter potential emissions are also below the 5 tpy threshold. The other two criteria of 62-213.430(6)(b) used to classify an activity as insignificant are also met. The limestone feed system vent filters are not subject to unit-specific applicable requirements (62-213.430(6)(b).1) and because it is clearly established in this application that the facility exceeds the major source thresholds for PM and PM₁₀, this activity would not be the cause for exceeding such thresholds (62-213.430(6)(b).2).

NGS Limestone Feed System Vent Filter Exhaust

Calculation of PTE using crushed stone emission factors

Basis: There are six limestone feed system vent filter exhausts, three per CFB unit.

The vent filter collects limestone dust and returns it to the process.

Each feed system vent consists of two pickup points off of rotary feeders.

The emission calculations below are for all limestone feed system vent filter exhausts combined and are based on the maximum permitted annual limestone use rate.

Process rate (ton/yr)	Breakdown of process	Number of transfer points as part of system	PM ₁₀ Emission factor ⁽¹⁾⁽³⁾ (lb/ton)	Pre fabric filter PM ₁₀ PTE (lb/yr)	Pre fabric filter PM ₁₀ PTE (tpy)	Fabric filter collection efficiency (%)	Post fabric filter PM ₁₀ PTE (tpy)	PM Emission factor ⁽²⁾⁽³⁾ (lb/ton)	Pre fabric filter PM PTE (lb/yr)	Pre fabric filter PM PTE (tpy)	Fabric filter collection efficiency (%)	Post fabric filter PM PTE (tpy)
1,450,000	Transfer point	2	0.0014	4,060	2.03	99.5%	0.01	0.00294	8526	4.26	99.5%	0.02

Notes:

- (1) Emission factors taken from AP-42 Section 11.19.2 Crushed Stone Processing (dated 1/95), Table 11.19.2-2. The emission factor most closely matching this process is that for a transfer point.
- (2) Based on footnote c of Table 11.19.2-2, TSP emission factors may be estimated by multiplying the PM₁₀ emission factors by 2.1.
- (3) A revised version of AP-42 Section 11.19.2 (dated 6/03) currently out for public comment includes transfer point emission factors that are slightly lower than those used in these calculations.

Attachment K

Compliance Report and Plan

Compliance Report and Plan

The following list is a summary of compliance issues covering the period of January 1, 2003 through the date of submittal of the renewal application.

- The following initial compliance tests required by Construction Permit PSD-FL-265 have not been completed.
 - Method 9 visible emissions test on the Limestone Reclaim Hoppers (EU028p)
 - Method 9 visible emissions test on the Plant Transfer Building (EU028o)
 - Method 22 on the Limestone Prep Building
 - Method 5 particulate matter test on the Limestone Storage Silos (EU035)These tests will be conducted as soon as practicable under the following compliance plan:
 - Required notification of the compliance test dates will be made to RESD 15 days prior to testing.
 - Stack testing will be performed in accordance with the permit.
 - JEA will submit the results of each compliance test to FDEP within 45 days of completion of that compliance test.

- The initial Method 5 particulate matter compliance test required by Construction Permit PSD-FL-265 on the Limestone Prep Dust Collectors (EU034) has not been completed. JEA will perform the required stack testing after installation of the required test ports. These tests will be conducted under the following compliance plan.
 - Required notification of the compliance test dates will be made to RESD 15 days prior to testing.
 - Stack testing will be performed in accordance with the permit.
 - JEA will submit the results of each compliance test to FDEP within 45 days of completion of that compliance test.

- For the limestone dryer/mills (EU033), the initial Method 9 visible emissions compliance test was not conducted while firing fuel oil in the dryers as required by Construction Permit PSD-FL-265. This emissions unit was permitted to fire both natural gas and fuel oil. Because the capability to fire fuel oil in these units has not yet been constructed, the initial compliance test used to demonstrate compliance with the visible emissions limit was conducted with natural gas. An initial Method 9 visible emissions compliance test will be conducted on the Limestone dryer/mills while the dryer/mills are firing fuel oil within 60 days of the first day fuel oil is fired in the limestone dryer/mills. The compliance test will be conducted under the following compliance plan:
 - Required notification of the compliance test dates will be made to RESD 15 days prior to testing.
 - Stack testing will be performed in accordance with the permit.
 - JEA will submit the results of each compliance test to FDEP within 45 days of completion of that compliance test.

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

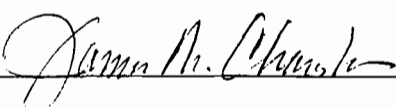
compliance in a timely manner. This is in accordance with company policy of maintaining continuous compliance with all applicable rules and regulations.

Attachment L

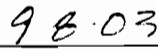
Compliance Certification

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 and plan 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.



Signature



Date

Attachment P

Compliance Test Reports

Submittal Date of Compliance Test Reports

EU ID#	EU Description	Compliance test reports	Date of submittal
EU26	NGS – Circulating Fluidized Bed Boiler No. 2	Initial or quarterly PM compliance test while firing pet coke	7/3/02
		Initial PM compliance test while firing coal	8/13/02
		Initial or annual PM ₁₀ compliance test while firing pet coke	7/3/02
		Initial PM ₁₀ compliance test while firing coal	8/13/02
		Initial VOC compliance test while firing pet coke	7/3/02
		Initial VOC compliance test while firing coal	8/13/02
		Initial lead compliance test while firing pet coke	7/3/02
		Initial lead compliance test while firing coal	1/15/03
		Initial sulfuric acid mist compliance test while firing pet coke	8/26/03
		Initial sulfuric acid mist compliance test while firing coal	8/13/02
		Initial hydrogen fluoride compliance test while firing pet coke	7/3/02
		Initial hydrogen fluoride compliance test while firing coal	8/13/02
		Initial mercury compliance test while firing pet coke	7/3/02
		Initial mercury compliance test while firing coal	8/13/02
EU27	NGS – Circulating Fluidized Bed Boiler No. 1	Initial or quarterly PM compliance test while firing pet coke	12/10/02
		Initial or annual PM ₁₀ compliance test while firing pet coke	12/10/02
		Initial VOC compliance test while firing pet coke	11/12/02
EU028a	Vessel Hold	Initial VE compliance test	8/13/02
EU028a	Vessel Unloader & Spillage Conveyors	Initial VE compliance test	8/13/02
EU028	Belt Conveyor No. 1	Initial VE compliance test	8/13/02
EU028c	Transfer Building No. 1	Initial VE compliance test	8/13/02
EU028g	Transfer Building No. 2	Initial VE compliance test	8/13/02
EU028l	Transfer Building No. 3	Initial VE compliance test	8/13/02
EU028q	Transfer Building No. 4	Initial VE compliance test	8/13/02
EU028d	Transfer Building No. 5 and Limestone Chute	Initial VE compliance test	10/2/02
EU028h	Fuel Storage Domes A and B	Initial VE compliance test	8/13/02
EU028v	Transfer Building No. 6	Initial VE compliance test	10/2/02
EU028o	Plant Transfer Building	Initial VE compliance test	See Compliance Plan
EU028p	Limestone Storage Pile	Initial VE compliance test	8/13/02
EU028p	Limestone Reclaim Hoppers	Initial VE compliance test	See Compliance Plan
EU029	NGS – Crusher Building Baghouse Exhaust (DC1)	Initial VE compliance test	8/13/02
EU031	NGS – Fuel Silo Dust Collectors (DC2 and DC3)	Initial VE compliance test	8/13/02
EU033	NGS – Limestone Dryer/Mills	Initial PM compliance test	5/8/03
		Initial VE compliance test	8/13/02
EU034	NGS – Limestone Prep Building Dust Collectors	Initial PM compliance test	See Compliance Plan
		Initial VE compliance test	8/13/02
Limestone Prep Building	NGS – Limestone Prep Building	Initial Method 22 VE compliance test	See Compliance Plan
EU035	NGS – Limestone Feed Silo Bin Vents	Initial PM compliance test Initial VE compliance test	See Compliance Plan 8/13/02
EU036	NGS – Fly Ash Transport Blower Discharge	Initial VE compliance test	8/13/02
EU037	NGS – Fly Ash Silo Bin Vents	Initial VE compliance test	8/13/02
EU038	NGS – Bed Ash Silo Bin Vents	Initial VE compliance test	8/13/02
EU042	NGS – AQCS Pebble Lime Silo Bin Vent	Initial VE compliance test	8/13/02
EU051	NGS – Fly Ash Slurry Mix System Vents	Initial VE compliance test	8/13/02
EU052	NGS – Bed Ash Slurry Mix System Vents	Initial VE compliance test	8/13/02
EU053	NGS – Bed Ash Surge Hopper Bin Vents	Initial VE compliance test	8/13/02
EU003	NGS – Boiler No. 3	Annual PM Compliance test	10/29/02
		Annual SO ₂ compliance test	10/11/02
		Annual VE compliance test	10/29/02
EU006	NGS – Combustion Turbine No. 3	Annual VE compliance test	9/25/01
EU007	NGS – Combustion Turbine No. 4	Annual VE compliance test	9/26/01
EU008	NGS – Combustion Turbine No. 5	Annual VE compliance test	5/23/01
EU009	NGS – Combustion Turbine No. 6	Annual VE compliance test	5/27/01
EU016	SJRPP - Boiler No. 1	Annual PM Compliance test	1/22/03
		Annual NO _x Compliance test	1/22/03
		Annual SO ₂ compliance test	1/22/03
		Annual VE compliance test	1/22/03
EU017	SJRPP - Boiler No. 2	Annual PM Compliance test	1/22/03
		Annual NO _x Compliance test	1/22/03
		Annual SO ₂ compliance test	1/22/03
		Annual VE compliance test	1/22/03
EU023	SJRPP - Coal Storage Yard and Transfer Systems	VE compliance tests	1/22/03
EU022	SJRPP - Limestone and Flyash Handling	Annual VE compliance tests	1/22/03

Attachment V

Summary of Compliance Issues

Attachment V – Summary of Compliance Issues

EU #	Specific Permit Condition #	Requirement Descrip. of Permit Condition	Noncompliance Basis	Beginning and Ending Dates	Cause of Noncompliance and Corrective Action	Dates of Previously Submitted Reports Showing Noncompliance
26	20,38 – Sulfuric Acid Mist Permit PSD-FL-265 1.1 lb/hr	Initial stack tests	Stack Test	5/20 to 7/25/02	SO2 interference suspected.	7/3/2002 (Failed) 1/10/2003 (Failed) 9/9/2002 (Passed)
26	19,37 – Lead Permit PSD-FL-265 0.07 lb/hr	Initial stack tests	Stack Test	6/29 to 12/6/02	Torn bag in bag-house. Bag located and replaced.	8/13/2002 (Failed) 10/7/2002 (Failed) 1/15/2003 (Passed)
26	14 – sulfur dioxide 0.2 lb/mmBtu 24-hour 0.15 lb/mmBtu 30-day	Continuous compliance	CEMs	5/27 to 12/31/02	Equipment deficiencies being rectified See compliance plan	*
26	17 – carbon monoxide 350 lb/hr 24-hr	Continuous compliance	CEMs	2/11/ to 12/31/02	Start-up burner deficiency being rectified	*
27	14 – sulfur dioxide 0.2 lb/mmBtu 24-hour 0.15 lb/mmBtu 30-day	Continuous compliance	CEMs	5/27 to 12/31/02	Equipment deficiencies being rectified See compliance plan	*
27	17 – carbon monoxide 350 lb/hr 24-hr	Continuous compliance	CEMs	2/11/ to 12/31/02	Start-up burner deficiency being rectified	*
27	15 – nitrogen oxides 0.09 lb/mmBtu	Continuous compliance	CEMs	2/11/ to 12/31/02	Instrument problems	*
27	20,38 – Sulfuric Acid Mist Permit PSD-FL-265 1.1 lb/hr	Initial stack tests	Stack Test	9/25 to 12/9/02	SO2 interference suspected.	11/12/2002 (Failed) 12/31/2002 (Failed) 1/27/2003 (Passed)
37	24 – Visible Emissions	5% opacity limit	Observation	2/22 to 2/22/02	Malfunctioning door seal. Solution engineered and implemented	
3	A.20 Opacity	Continuous Opacity Monitor (COM)	COM	1/1 to 12/31/02	Start-up, malfunctions, load change, soot-blowing. See previously submitted excess emissions reports for details.	See excess emissions report.

* To be performed in accordance with RESD compliance plan and schedule

001-AV
issued 10/13/98
eff 1/1/99

May 23, 2001

issued 5/25/2001
revis 5/25/2006

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. N. Bert Gianazza, P.E.
Environmental Permitting & Compliance
JEA
21 West Church Street
Jacksonville, Florida 32202-3139

Re: Northside Generating Station
DEP File No. 0310045-007-AC, PSD-FL-265A

Dear Mr. Gianazza:

The Department reviewed your letter and application dated March 22, 2001 requesting changes to the design of the fly and bed ash handling systems at the referenced facility. This request is acceptable to the Department. Permit PSD-FL-265 is hereby modified as follows:

SPECIFIC CONDITION 24.

Standards: The materials handling sources at Northside shall be regulated as follows, and the emission limits and standards shall apply upon completion of the initial compliance tests for each of the units or activities.

- (a) The following materials handling sources shall be equipped with fabric filter controls and visible emissions shall not exceed 5 percent opacity:

- Crusher house (EU29)
- Boiler fuel silos (EU31)
- Limestone receiving bins (EU32)
- Limestone crusher conveyor transfers (EU34)
- Limestone feed silos (EU35)
- Fly ash waste bins (EU36)
- Fly ash transfer and storage systems (EU37)
- Bed ash transfer and storage systems (EU38)
- Bed ash truck loadout systems (EU40)

~~Fly ash truck loadout systems (EU41)~~

Pebble lime silo (EU42)

Fly ash silo pre-mixers (EU51)

Bed ash silo mixers (EU52)

Bed ash surge hoppers (EU53)

- (b) The following materials handling sources shall use wet suppression, water spray, coverings, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 5 percent opacity:

Transfer towers (EU28c, EU28g, EU28i, EU28o and EU28q)

Coal and petroleum coke storage building (EU28h)

Stacker/reclaimers (EU28)

Limestone lowering well (EU28d)

Conveyors (EU28)

~~Ash hydrator loadouts (EU28r)~~

- (c) The following materials handling sources shall use wet suppression, water spray, partial enclosures, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 10 percent opacity:

Northside dock ship unloading operations – shiphold and receiving hoppers (EU28a)

Northside dock receiving conveyor (EU28a)

Limestone storage pile (EU28p)

Limestone reclaim hopper (EU28p)

- ~~(d) The fly ash and bed ash silo hydrators (EU39) shall use a venturi scrubber and visible emissions shall not exceed 5 percent opacity.~~

- ~~(e)~~(d) The limestone dryer/mill building shall have no visible emissions (other than from a baghouse vent).

- ~~(f)~~(e) The maximum particulate matter emissions from the following operations shall not exceed 0.01 grains per dry standard cubic foot:

Limestone receiving bins (EU32)

Limestone crusher conveyor transfers (EU34)

Limestone feed silos (EU34)

SPECIFIC CONDITION 41.

Materials Handling Operations: Visible emissions tests shall be conducted on the material handling operations to determine compliance with applicable limits, as follows:

Emissions Units at Northside	EPA Method(s)	Duration of VE Test	Frequency	Material
Shiphold (EU 28a)	9	30 min	I only	C or PC
Ship Unloader & Spillage Conveyors (EU 28a)	9	3 hr	I only	C & LS
Conveyors (EU 28)	9	3 hr	I only	C & LS
Transfer Towers (EU 28c, 28g, 28i, 28q)	9	3 hr	I only	C & LS
Fuel Storage Building (EU28h)	9	30 min	I only	C or PC
Fuel Storage Pile - Stacking & Reclaiming (EU28)	9	30 min	I only	C or PC
Limestone Storage Pile (EU28p)	9	30 min	I only	LS
Hydrator Truck Loadout - 1 per silo @ Discharge (EU28r)	9	30 min	I only	Bed & Fly Ash
NSPS - OOO				
Limestone Receiving Bins - Baghouse Exhaust (EU32)	9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
Limestone Crusher Conveyor Transfer - Baghouse Exhaust (EU34)	9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
Limestone Feed Silos - Baghouse Exhaust (EU35)	9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
Limestone Dryer Building	22	IVE - 75 min	I only	LS
NSPS - Y				
Crusher House - Baghouse Exhaust (EU29)	9	IVE - 3 hr RVE - 30 min	I & R	C
Boiler Feed Silos - Baghouse Exhaust (EU31)	9	IVE - 3 hr RVE - 30 min	I & R	C
Other				
Fly Ash Waste Bin - Baghouse Exhaust (EU36)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Fly Ash Silos - Baghouse Exhaust (EU37)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Bed Ash Silos - Baghouse Exhaust (EU38)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Fly Ash Hydrators - Scrubber Exhaust (15 min/hydrator) (EU39)	9	IVE - 60 min RVE - 60 min	I & R	Ash
Bed Ash Hydrators - Scrubber Exhaust (15 min/hydrator) (EU39)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Fly Ash Truck Loadout - Baghouse Exhaust (EU41)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Bed Ash Truck Loadout - Baghouse Exhaust (EU40)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Pebble Lime Silo - Baghouse Exhaust (EU42)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Fly ash silo pre-mixers (EU51)	9	IVE - 60 min RVE - 60 min	I & R	Ash
Bed ash silo mixers (EU52)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Bed ash surge hoppers (EU53)	9	IVE - 60 min RVE - 60 min	I & R	Ash

C - Coal

I - Initial R - Renewal (once every 5 years)

IVE - Initial Visible Emissions Test, RVE - Renewal Visible Emissions Test

LS - Limestone; PC-Petroleum Coke

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes. Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by the filing of a Notice of Appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within (thirty) days after this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Howard L. Rhodes, Director
Division of Air Resources

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT MODIFICATION was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on _____ to the person(s) listed:

B. Gianazza, P.E., JEA*
G. Worley, EPA
J. Bunyak, NPS
C. Kirts, DEP NED
H. Oven, PPS
J. Manning, RESD
L. Sherrill, P.E., Black & Veatch Corp.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk)

(Date)