May ___, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Walter P. Bussells, Managing Director and CEO
JEA
21 West Church Street
Jacksonville, Florida 32202-3139

Re: DEP File No. PSD-FL-265
JEA Northside Generating Station
Northside Units 1 and 2 Repowering Project

Dear Mr. Bussells:

Enclosed is one copy of the Draft Permit, Technical Evaluation and Preliminary Determination, for the referenced project in Duval County. The Department's Intent to Issue Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE" are also included.

The "Public Notice of Intent to Issue Permit" must be published as soon as possible in a newspaper of general circulation in the area affected. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section, at the above letterhead address. If you have any questions, please call Syed Arif at 850/488-1344.

Sincerely,

C. H. Fancy, P.E., Chief,
Bureau of Air Regulation

Enclosures

122855
4/7/99

PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. PSD-FL-265
Duval County, Florida

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit under the requirements for the Prevention of Significant Deterioration of Air Quality (PSD permit) to JEA. The permit is to construct two new coal- and petroleum coke-fired circulating fluidized bed (CFB) boilers and associated ancillary equipment and processes at the existing Northside Generating Station in Duval County, Florida. These new boilers will be connected to the existing steam turbines for Units 1 and 2 (297.5 MW each). A new, dual-flued 495-foot stack will be added to the facility for Repowered Units 1 and 2, along with solid fuel delivery and storage facilities, limestone preparation and storage facilities (including three limestone dryers), a lime silo, aqueous ammonia storage, polishing scrubbers, electrostatic precipitators or fabric filters (baghouses), and ash removal and storage facilities. A Best Available Control Technology (BACT) determination was required for particulate matter (TSP/PM10), oxides of nitrogen (NO_x), volatile organic compounds (VOC), carbon monoxide (CO), hydrogen fluoride (HF), and mercury (Hg) pursuant to Rule 62-212.400, F.A.C.

The applicant's name and address are JEA, 21 West Church Street, Jacksonville, Florida 32202-3105. The Northside Generating Station is located at 4377 Heckscher Drive, Jacksonville, Duval County, Florida.

Particulate matter (TSP/PM10) emissions from Units 1 and 2 will be controlled by either fabric filters (baghouses) or electrostatic precipitators. Oxides of nitrogen emissions from Units 1 and 2 will be controlled through the use of a selective non-catalytic reduction (SNCR) system. Carbon monoxide and volatile organic compound emissions from Units 1 and 2 will be controlled through good combustion practices, and hydrogen fluoride and mercury emissions will be controlled through a combination of fuel quality and the use of air quality control systems for particulate matter and sulfur dioxide. The limestone dryer emissions will be controlled through fabric filters (baghouses), low NOx burners, good combustion practices, and the use of low sulfur fuels. The materials handling operations will utilize wet suppression techniques, partial and total enclosures, conditioned materials, and fabric filters (baghouses), as appropriate, to control particulate matter (TSP/PM10) emissions.

JEA has requested emission caps on Units 1 and 2 as well as existing Unit 3 for sulfur dioxides, oxides of nitrogen, and particulate matter (TSP) to ensure a ten percent decrease below historical (1994-1995) annual emission levels once Units 1 and 2 are repowered. Therefore, in the future, emissions of these three parameters from Units 1, 2, and 3 combined will be less than before the repowering while electrical output from Units 1, 2 and 3 will be about two and a half times greater than historical levels as a result of the repowering.

The net emissions increases due to the repowering of Units 1 and 2 for PSD applicability purposes are summarized below (in tons per year).

Pollutants	Net Emissions Increases	PSD Significant Emission Rates
TSP	100	25
PM10	132	15
NO_x	871	40
CO	3,063	100
VOCs	107	40
HF	3.02	3
Hg	0.26	0.1

An air quality impact analysis was conducted. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards. The maximum predicted PSD Class II increments of NO_2 and PM10 consumed by all sources in the area, including this project, will be as follows:

Averaging Time	Allowable Increment(mg/m^2)	Increment Consumed	Percent Consumed
PM10			
24-hour	30	24.4	81
Annual	17	13.8	81
NO_2			
Annual	25	1.6	6

Maximum predicted impacts are less than the applicable PSD Class I significant impact levels at the Okefenokee National Wilderness Area for PM10 and NO_2.

The Department will accept written comments and requests for a public meeting concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of this "Public Notice of Intent to Issue PSD permit." Written comments and requests for a public meeting should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or

identification number, if known; (b) The name, address and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any which shall be the address for service purposes during the course of the proceeding; and explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material facts. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301 of the Florida Administrative Code.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the petition taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-1344
Fax: 850/922-6979

Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590
Telephone: 904/448-4300
Fax: 904/448-4366

The complete project file includes the Draft Permit, the application and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, Florida Statutes. Interested persons may contact the New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-1344, for additional information.

122856.4

4/7/99

Draft

[to be placed on JEA letterhead]

April 8, 1999

Gregg Worley
U.S. Environmental Protection Agency
Region IV
345 Courtland Street, NE
Atlanta, GA 30365

RE: JEA Northside Units 1 and 2 Repowering Project, PSD-FL-265
Request for Approval of Alternative Test Methods under NSPS
And Notification of Use of Continuous Opacity Monitors

Dear Mr. Worley:

JEA recently submitted an application for a Prevention of Significant Deterioration (PSD) air construction permit to the Florida Department of Environmental Protection (DEP) for two new circulating fluidized bed (CFB) boilers to be used to repower existing Units 1and 2 at the Northside Generating Station in Jacksonville, Florida. Those repowered units will be subject to the Subpart Da New Source Performance Standards (NSPS, 40 CFR Part 60). As part of the permitting process, JEA is hereby requesting authority to use alternative methods of compliance for certain parameters, and providing notice that it intends to use continuous opacity monitors for compliance under the NSPS regulations.

Specifically, JEA requests approval to use CEMS's installed, certified, operated, and maintained under the federal Acid Rain Program (40 CFR Part 75) for sulfur dioxide and nitrogen oxides as alternative compliance methods to be used in lieu of the EPA reference method stack tests specified under 40 CFR s. 60.48a. EPA has the authority to approve such alternative methods under 40 CFR s. 60.8(b), provided that such methods are adequate to indicate whether a specific source is in compliance. Because the CEMS's under the Acid Rain Program are relatively accurate to demonstrate compliance, JEA requests approval to use these CEMS's under the NSPS program as well.

In addition, JEA requests approval to use EPA Method 29 to demonstrate compliance with the NSPS particulate matter limit under 40 CFR 60.47a. This test method, which is an EPA reference method under Appendix A of 40 CFR Part 60, should be equivalent to EPA Methods 5, 5B and 17 authorized under 40 CFR s.60.48a.

Further, JEA hereby provides notice as required under 40 CFR s. 60.8(e)(5) that continuous opacity monitor data will be used to demonstrate compliance with the visible emission (opacity) standards under 40 CFR s. 60.42a for the above-referenced units. These continuous opacity monitors will be installed, certified, operated, and maintained under the federal Acid Rain Program (40 CFR Part 75). JEA requests that if there are any discrepancies between the performance specifications under 40 CFR Part 60, Appendix B, and 40 CFR Part 75, that the latter control.

Thank you for considering our request. We are hoping to receive a proposed permit in early May and a final permit approximately 45 days later. We would like to receive a response before the final permit is issued if at all possible and would appreciate any assistance you can provide to expedite this process. Should you have any questions or require additional information to support our request, please call Bert Gianazza with JEA at 904-665-6247.

Sincerely,

Walter P. Bussells
Managing Director & Chief Executive Officer

cc: A. A. Linero, DEP, BAR
Syed Arif, DEP, BAR
Rita Felton-Smith, DEP NE District
Robert S. Pace, RESD
Ellen Porter, USFWS

122983
4/6/99

bcc: Mike Bilello, FWENC
Darrel Graziani, FWENC
R. Breitmoser, FWENC
B. Gianazza, JEA
G. Sams, HGSS
A. Morrison, HGSS

122983

In the Matter of an
Application for Permit by:

Mr. Walter P. Bussells,
Managing Director and CEO
JEA
21 West Church Street
Jacksonville, FL 32202

Facility I.D. No. 310045
DRAFT Permit No. PSD-FL-265
Northside Generating Station
Repowering of Units 1 & 2
Duval County

INTENT TO ISSUE PSD PERMIT

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue a permit under the requirements for the Prevention of Significant Deterioration (PSD) of Air Quality (copy of Draft PSD Permit attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, JEA, applied on February 15, 1999, to the Department for a PSD permit to install two new coal- and petroleum coke-fired circulating fluidized bed (CFB) boilers to be connected to the existing steam turbines for Northside Generating Station Units 1 and 2 (297.5 MW each), along with associated ancillary equipment and processes including a new dual-flued, 495-foot stack, solid fuel delivery and storage facilities, limestone preparation and storage facilities (including three limestone dryers), a lime silo, aqueous ammonia storage, polishing scrubbers, electrostatic precipitators or fabric filters (baghouses), and ash removal and storage facilities.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that a PSD permit and a determination of Best Available Control Technology for the control of particulate matter (TSP/PM10), oxides of nitrogen, carbon monoxide, volatile organic compounds, hydrogen fluoride, and mercury is required to conduct the work.

The Department intends to issue this PSD permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emissions units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice of Intent to Issue PSD Permit." The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one of significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below.

The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850-488-0114; Fax 850/922-6979). The Department suggests that you publish the notice within thirty days of receipt of this letter. You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S., to the office of the Department issuing the permit or other authorization. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for a public meeting concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of "Public Notice of Intent to Issue PSD permit." Written comments and requests for a public meeting should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for a administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or withing fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S.,or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding offer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code (F.A.C.)

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues

of material fact. If there are none, the petition must so indicate; (3) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.302, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Executed in Tallahassee, Florida.

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE PSD PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, Draft BACT Determination, and the DRAFT PSD permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on _____
to the person(s) listed:

Walter P. Bussells, JEA *
Bert Gianazza, JEA
Mike Bilello, Foster Wheeler
Darrel Graziani, Foster Wheeler
Hamilton S. Oven, Jr., DEP Siting
Scott Goorland, DEP OGC
Rita Felton-Smith, DEP NE District
Robert S. Pace, Jacksonville RESD
Gregg Worley, EPA Region IV
Ellen Porter, USFWS
Hon. John A. Delaney, Mayor, City of Jacksonville
Brian D. Teeple, Executive Director, Northeast Florida Regional Planning Council

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)

DRAFT PSD PERMIT 4/8/99

PERMITTEE:

JEA
21 West Church Street
Jacksonville, FL 32202

Authorized Representative:
Walter P. Bussells
Managing Director and Chief Executive Officer

FID No.	
PSD No.	PSD-FL-265
SIC No.	4911
Project	Northside Repowering
Expires:	5 years from issuance

PROJECT AND LOCATION:

Permit for the construction of Repowered Units 1 and 2, coal and petroleum coke-fired circulating fluidized bed (CFB) boilers with associated ancillary equipment and processes, Northside Generating Station, located at 4377 Heckscher Drive, Jacksonville, Duval County, Florida.

UTM: Zone 17, 446.7 km E; 3365.1 km N

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, 62-297. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices and Tables made a part of this permit:

Appendix BD	BACT Determination
Appendix GC	Construction Permit General Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

FACILITY DESCRIPTION

JEA is authorized to install two new coal- and petroleum coke-fired circulating fluidized bed (CFB) boilers and associated ancillary equipment and processes at the existing Northside Generating Station in Duval County, Florida. These new boilers will be connected to the existing steam turbines for Units 1 and 2 (297.5 MW each). A new, dual-flued 495-foot stack will be added to the facility for Repowered Units 1 and 2, along with solid fuel delivery and storage facilities, limestone preparation and storage facilities (including three limestone dryers), a lime silo, aqueous ammonia storage, polishing scrubbers, precipitators or baghouses, ash removal and storage facilities, and an electrical substation.

Existing Unit 2 boiler will be permanently shut down upon issuance of this permit, and existing Unit 1 boiler will be permanently shut down upon its repowering. Other existing units at the plant consist of: Unit 3, a pre-NSPS boiler with a nominal rating of 564 MW fired by natural gas, landfill gas, No. 6 residual fuel oil, and used oil; four pre-NSPS distillate fuel oil fired combustion turbines with a nominal rating of 52.5 MWs each; and one auxiliary boiler fired by natural gas, LP gas, No. 2 distillate fuel oil, No. 6 residual fuel oil, and used oil.

The Northside Generating Station and the adjoining St. Johns River Power Park (SJRPP) are considered to be a single air emission "facility" for air permitting purposes.

EMISSION UNITS

ARMS Emission Unit No.	System	Emission Unit Description
026	Power & Steam Generation	NGS – Circulating Fluidized Bed Boiler No. 2
027	Power & Steam Generation	NGS – Circulating Fluidized Bed Boiler No. 1
028	Materials Handling	NGS – Materials Handling & Storage Operations
029	Materials Handling	NGS – Crusher House
031	Materials Handling	NGS – Boiler Fuel Silos
032	Materials Handling	NGS – Limestone Receiving Bins
033	Materials Handling	NGS – Limestone Dryers/Mills
034	Materials Handling	NGS – Limestone Crusher Conveyor Transfers
035	Materials Handling	NGS – Limestone Feed Silos
036	Materials Handling	NGS – Fly Ash Waste Bins
037	Materials Handling	NGS – Fly Ash Transfer & Storage Systems
038	Materials Handling	NGS – Bed Ash Transfer & Storage Systems
039	Materials Handling	NGS – Fly & Bed Ash Silo Hydrators
040	Materials Handling	NGS – Bed Ash Truck Loadout Systems
041	Materials Handling	NGS – Fly Ash Truck Loadout Systems
042	Materials Handling	NGS – Pebble Lime Silo

REGULATORY CLASSIFICATION

The Northside Generating Station and SJRPP are classified as a single "major" facility and a single Title V Source. Air pollutant emissions are over 100 tons per year (TPY) for carbon monoxide, oxides of nitrogen, sulfur dioxide, particulate matter (PM and PM10), volatile organic compounds; 25 TPY for total hazardous air pollutants; and 10 TPY for hydrochloric acid.

This type of facility (fossil-fuel-fired steam generator) is on the list of the 28 Major Facility Categories in Table 62-212.400-1. Because the facility's emissions are greater than 100 TPY for the pollutants listed above, the facility is also a Major Facility with respect to Rule 62-212.400, F.A.C. In accordance with Chapters 62-212, F.A.C., and the Significant Emission Rates in Table 212.400-2, F.A.C., Prevention of Significant Deterioration (PSD) review is required for the Northside Units 1 and 2 Repowering Project for the following pollutants: oxides of nitrogen, particulate matter (PM/PM10), carbon monoxide, volatile organic compounds, hydrogen fluoride, and mercury.

Various emission units and activities within this facility are subject to the following federal New Source Performance Standards: 40 CFR 60 Subparts A, Da, Y, and OOO.

This facility is also subject to the federal Acid Rain Program under Title IV of the Clean Air Act.

A separate PSD permit revision is being issued to address materials handling operations at SJRPP (PSD-FL-10) that will support the Northside Units 1 and 2 Repowering Project.

PERMIT SCHEDULE

- May__, 1999 Distribute Intent to Issue Permit
- March 17, 1999 Application Deemed Complete
- February 15, 1999 Received Application

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Application (as received on February 15, 1999)

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to operate, construct or modify an emission unit(s) should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP or Department) located at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, and phone number (850) 488-1344. All documents related to reports, tests, and notifications should be submitted to the Jacksonville Regulatory and Environmental Services Department (RESD), 421 West Church Street, Suite 412, Jacksonville, Florida 32202-4111, (904) 630-3484.

2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]

3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]

5. Application for Title V Permit: An application for a Title V operating permit must be submitted to the Department's Bureau of Air Regulation, with a copy to RESD, 90 days prior to expiration of this permit, but not later than 180 days after commencing operation. [Chapter 62-213, F.A.C.]

6. New or Additional Conditions: Pursuant to Rule 62-4.080(1), F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080(1), F.A.C.]

7. Annual Reports: Pursuant to Rule 62-210.370(3), F.A.C., Annual Operating Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports shall be sent to RESD by March 1st of each year.

8. Stack Testing Facilities: Stack sampling facilities shall be installed in accordance with Rule 62.297.310(6), F.A.C.

9. Construction: Approval to construct shall become invalid if construction is not commenced within 18 months after issuance of the construction permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within five years. The Department may extend the 18-month periods upon a satisfactory showing that an extension is justified. [40 CFR 52.21(r)(2)]

10. BACT Determination: In conjunction with extensions of the 18 month periods to commence or continue construction, or an extension of the permit expiration date, the permittee may be required to demonstrate the adequacy of any previous determination of best available control technology for the source. [40 CFR 52.21(j)(4)]

11. Permit Extension: This permit shall expire five years after the date of issuance. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation at least 60 days before the expiration of the permit [Rule 62-4.080, F.A.C.]

12. Semiannual Reports: Semiannual excess emission reports, required under 40 CFR 60.7 (c) (64 Fed. Reg. 7458 (Feb. 12, 1999)) shall be submitted to RESD.

13. Modifications: The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change. [Chapters 62-210 and 62-212, F.A.C.]

14. Notifications of Modifications: All persons who commented in writing on the proposed PSD permit shall be notified, at their last known addresses, of any request made by JEA to revise the PSD permit or subsequent Title V permit for Northside Units 1, 2, and 3, other than for administrative permit corrections. If a decision is made to revise the permit in a substantive manner, an additional notice shall also be provided to such persons (and to the general public through a newspaper notice) of the opportunity to request an administrative hearing. [Request of applicant; Chapter 62-212, F.A.C.]

APPLICABLE STANDARDS AND REGULATIONS

1. Applicable Regulations: Unless otherwise indicated in this permit, the construction and operation of the subject emission units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-103, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, 62-297. The subject emission units at Northside are also subject to following requirements of the Code of Federal Regulations Section 40, Part 60 (1998 version), adopted by reference in the Florida Administrative Code Rule 62-204.800 (as applicable):

(a) Subpart A, General Provisions, Sections 60.7, 60.8, 60.11, 60.12, 60.13, and 60.19;

(b) Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978 (Northside Units 1 and 2);

(c) Subpart Y, Standards of Performance for Coal Preparation Plants (coal handling at Northside, excluding open storage piles); and

(d) Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (limestone handling at Northside, except for open storage piles and truck unloading).

Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]

GENERAL OPERATION REQUIREMENTS

2. Capacity: The maximum heat input rates to Northside Units 1 and 2 shall not exceed 2764 mmBtu/hr, per unit. The maximum heat input rates to the three limestone dryers shall not exceed 57.9 mmBtu/hr, for all three units combined. These rates are included only for purposes of determining capacity during compliance stack tests. Continuous compliance with these rates is not required; capacity during compliance testing shall be determined based on fuel flow data and the as-fired heat content of the fuel. Compliance shall not be determined using stack gas flow monitors required under the federal Acid Rain Program (40 CFR Part 75), which tend to overestimate heat input rates.

3. Maximum Allowable Hours: Northside Units 1 and 2 and the materials handling operations may operate continuously (i.e., 8760 hours per year).

4. Fuels: Only coal, petroleum coke, No. 2 fuel oil (maximum sulfur content of 0.05 percent by weight), natural gas, and landfill gas shall be fired in Units 1 and 2. Only No. 2 fuel oil (maximum sulfur content of 0.05 percent by weight) and natural gas shall be fired in the three limestone dryers.

5. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering, seeding, and application of water or chemicals to the affected areas, as necessary. After construction and during operation, the following measures shall be taken, in addition to requirements for materials handling operations specifically addressed herein, to minimize unconfined particulate matter emissions: maintenance of paved areas as needed, regular mowing of grass and care of vegetation, limiting access to plant property by unnecessary vehicles, storage of bagged chemical products in weather-tight buildings (except for fertilizer), and prompt cleanup of spilled powdered chemical products.

6. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, JEA shall notify RESD as soon as possible, but at least within one (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence;

and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]

7. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

8. Circumvention: The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

CONTROL TECHNOLOGY - CFB BOILERS

9. Sulfur Dioxide Control: Sulfur dioxide (SO_2) and acid gases shall be controlled by the injection of limestone into the CFB boiler beds. Residual sulfur dioxide and acid gases shall be further controlled by the use of add-on air quality control systems for Units 1 and 2 to meet limits of 0.2 lb/mmBtu, 24-hr block average, and 0.15 lb/mmBtu, 30-day rolling average. The permittee shall provide design specifications to the Department at least 90 days prior to installation of the devices.

10. Oxides of Nitrogen Control: A selective non-catalytic reduction (SNCR) system designed to meet a limit of 0.09 lb/mmBtu, 30-day rolling average, shall be used on Units 1 and 2 for control of oxides of nitrogen (NOx) emissions.

11. Particulate Matter Control: Particulate matter (PM and PM10) shall be controlled by the use of high efficiency, add-on air quality control devices (either fabric filters or electrostatic precipitators) on Units 1 and 2 that are designed to meet a limit of 0.011 lb/mmBtu. The permittee shall identify the devices selected and shall provide design specifications to the Department at least 90 days prior to installation of the devices.

EMISSION LIMITS AND STANDARDS

The following shall apply upon completion of the initial compliance tests, certification tests, and performance specification tests, as applicable and per pollutant, for each of the repowered Units 1 and 2, except as noted:

12. Best Available Control Technology: The following is a summary of the BACT determinations by DEP of the Repowered Units 1 and 2, and other limits requested by the applicant, as noted.

Table 1. Emission Limits for Units 1 and 2

Pollutant	Emission Limits– Per Unit
Visible emissions	10 percent opacity, 6-minute block average
SO_2 [2]	0.20 lb/mmBtu, 24-hour block average[2, 3] 0.15 lb/mmBtu, 30-day rolling average [2]
NO_x [1, 2]	0.09 lb/mmBtu, 30-day rolling average
PM/PM10 [1]	0.011 lb/mmBtu, 3-hour average [1]
CO [1]	350 lbs/hour, 24-hour block average [1,3]
VOCs [1]	14 lbs/hour, 3-hour average [1]
Pb [2]	0.07 lb/hour, 3-hour average [2]
H_2SO_4 [2]	1.1 lbs/hour, 3-hour average [2]
HF [1]	0.43 lb/hour, 3-hour average [1]
Hg [1]	0.03 lb/hour, 6-hour average [1]

[1]BACT determination.

[2]Requested by applicant.

[3]24-hour block averages are calculated from midnight to midnight.

13. Visible Emissions: Visible emissions from Units 1 and 2 shall not exceed 10 percent opacity, 6-minute block average, excluding periods of startup, shutdown, and malfunction.

14. Sulfur Dioxide:

(a) Sulfur dioxide (SO_2) emissions from Units 1 and 2 shall not exceed 0.20 lb/mmBtu (24-hour block average) nor 0.15 lb/mmBtu (30-day rolling average). [Applicant request.]

(b) Sulfur dioxide from Units 1, 2, and 3 combined shall not exceed 12,284 tons during any consecutive 12-month period on a rolling basis. This condition shall become effective on the first day of the month following successful completion of the initial performance testing of Repowered Unit 2, and compliance shall be based upon at least 12 months of operation after the effective date. [Applicant request.]

(c) Sulfur dioxide emissions from existing Unit 1 shall not exceed 0.14 lb/mmBtu (24-hour block average), effective upon startup of Repowered Unit 2. [Applicant request.]

15. Oxides of Nitrogen:

(a) Oxides of nitrogen (NO_x) emissions from Units 1 and 2 shall not exceed 0.09 lb/mmBtu on a 30-day rolling average basis.

(b) Oxides of nitrogen emissions from Units 1, 2, and 3 combined shall not exceed 3,600 tons during any consecutive 12-month period on a rolling basis. This condition shall become effective on the first day of the month following successful completion of the initial performance testing of Repowered Unit 2, and compliance shall be based upon at least 12 months of operation after the effective date. [Applicant request.]

16. Particulate Matter (PM and PM10):

(a) Particulate matter (PM) emissions from Units 1 and 2 shall not exceed 0.011 lb/mmBtu (3-hour average).

(b) Particulate matter-10 microns or smaller (PM 10) emissions from Units 1 and 2 shall not exceed 0.011 lb/mmBtu (3-hour average).

(c) Stack emissions of particulate matter (PM) from Units 1, 2, and 3 combined shall not exceed 881 tons during any consecutive 12-month period on a rolling basis. This condition shall become effective on the first day of the month following successful completion of the initial performance testing of Repowered Unit 2, and compliance shall be based upon at least 12 months of operation after the effective date. [Applicant request.]

17. Carbon Monoxide: Carbon monoxide (CO) emissions shall not exceed 350 lbs/hour, 24-hour block average, nor 1533 tons per year from either Unit 1 or 2. [Annual limit—applicant request.]

18. Volatile Organic Compounds: Volatile organic compound (VOC) emissions shall not exceed 14 lbs/hour (3-hour average), nor 61.5 tons per year from either Unit 1 or 2. [Annual limit—applicant request.]

19. Lead: Lead (Pb) emissions shall not exceed 0.07 lb/hour (3-hour average), from either Unit 1 or 2. [Applicant request.]

20. Sulfuric Acid Mist: Sulfuric acid mist (H_2SO_4) emissions shall not exceed 1.1 lbs/hour (3-hour average), from either Unit 1 or 2. [Applicant request]

21. Hydrogen Fluoride: Hydrogen fluoride (HF) emissions shall not exceed 0.43 lb/hour (3-hour average), from either Unit 1 or 2.

22. Mercury: Mercury (Hg) emissions shall not exceed 0.03 lb/hour (6-hour average), from either Unit 1 or 2.

MATERIALS HANDLING OPERATIONS

23. Throughput rates: The materials handling and usage rates for coal, petroleum coke, and limestone at Northside shall not exceed the following (for Northside Units 1 and 2 combined), assuming a moisture content of 5.5% or less:

Material	Handling/Usage Rate Tons Per Year
Coal/Petroleum Coke	2.4 million
Limestone	1.4 million

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 feed silos and tripper transfer points (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)

(b) The following materials handling sources shall use wet suppression, coverings, and conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 5 percent opacity (as read at the property line):

Transfer towers and stations (EU28c, EU28g, EU28i, and EU28q)
Coal and petroleum coke storage building (EU28h)
Stacker/reclaimers (EU28)
Limestone lowering wells (EU28d)
Conveyors (EU28)
Ash hydrator loadouts (EU28r)

(c) The following materials handling sources shall use wet suppression and 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)
Limestone storage piles (EU28p)

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

(e) The building housing limestone crushing and drying operations shall have no visible emissions (other than from a baghouse vent).

(f) 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)

LIMESTONE DRYERS

25. Limestone dryers: The maximum emissions from each of the three limestone dryers shall not exceed the following limits, which are established as BACT by the Department. These limits shall become effective upon completion of the initial compliance tests:

Pollutants	Limits
Visible Emissions	5% Opacity
Sulfur Dioxide	Maximum 0.05% sulfur No. 2 distillate oil
Particulate Matter	0.01 grains per dry standard cubic foot

EXCESS EMISSIONS

26. Authorized Emissions: Notwithstanding other emission limits and standards established by this permit, excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized but in no case exceed twelve (12) hours in any 24-hour period for a startup on Units 1 and 2 (which shall not be started up at the same time) or two (2) hours in any 24-hour period for other reasons and for all other units and operations unless specifically authorized by DEP or RESD for longer duration.

27. Non-authorized Emissions: Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited pursuant to Rule 62-210.700, F.A.C

28. Excess Emissions Report: If excess emissions occur due to malfunctions for a period of more than two hours, the owner or operator shall notify RESD within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may require a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rules 62-4.130 and 62-210.700(6), F.A.C.]

COMPLIANCE DETERMINATION

29. Initial Performance Tests and CEMS Certifications: Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each unit will be operated, but not later than 180 days of initial operation, and periodically thereafter as indicated in this permit. Initial compliance tests shall be performed on Units 1 and 2 while firing either coal or petroleum coke as indicated below, and on the limestone dryers while firing fuel oil. Annual compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.340, F.A.C., on Units 1 and 2 while firing either coal or petroleum coke as indicated below. No stack tests are required if continuous emissions monitoring systems are used to demonstrate compliance. Certification tests (or performance evaluations, as applicable) for all Continuous Emissions Monitoring System (CEMS) required by this permit must be completed within 60 days after achieving the maximum production rate at which each unit will be operated but not later than 90 days of initial operation, and prior to the initial stack tests for that unit.

Note: No methods other than the ones identified below may be used for compliance testing unless prior DEP or RESD approval is received in writing. DEP or RESD may request a special compliance test pursuant to Rule 62-297.340(2), F.A.C., when, after investigation (such as complaints, increased visible emissions, or

questionable maintenance of control equipment), there is reason to believe that any applicable emission standard is being violated.

30. Visible Emissions (Opacity):

(a) Compliance with the visible emissions limit in Condition 13 shall be demonstrated with continuous opacity monitors installed, certified, operated, and maintained in accordance with 40 CFR Part 75, based on 6-minute block averages and excluding periods of startup, shutdown, and malfunction.

(b) Compliance with the visible emissions limit in Condition 25 for the limestone dryers shall be demonstrated using EPA Method 9 initially and once within every five years thereafter. The limestone dryers shall fire fuel oil during the initial compliance tests. In subsequent years, the testing shall be conducted annually if fuel oil has been fired for more than 400 hours during the previous federal fiscal year; otherwise, the testing shall be conducted once within every five years, even if the testing is conducted while firing natural gas.

31. Sulfur Dioxide:

(a) Compliance with sulfur dioxide (SO_2) emissions limits in Conditions 14(a) and 14 (c) shall be demonstrated with Continuous Emissions Monitoring Systems (CEMS's) installed, certified, operated and maintained in accordance with 40 CFR Part 75, based on 24-hour block and 30-day rolling averages, as applicable, and excluding periods of startup, shutdown, and malfunction. When monitoring data are not available, substitution for missing data shall be handled as required by the federal Acid Rain Program.

(b) Compliance with the annual SO_2 emission limit in Condition 14(b) shall be determined based on SO_2 data from the CEMS's. Emissions during periods of startup, shutdown, and malfunction shall be considered in determining the total annual emissions. [Applicant request.]

32. Oxides of Nitrogen:

(a) Compliance with the oxides of nitrogen (NOx) emissions limit in Condition 15(a) shall be demonstrated with a CEMS's installed, certified, operated and maintained in accordance with 40 CFR Part 75, based on a 30-day rolling average and excluding periods of startup, shutdown and malfunction. When monitoring data are not available, substitution for missing data shall be handled as required by the federal Acid Rain Program to calculate the 30-day rolling average.

(b) Compliance with the annual NOx emissions limit in Condition 15(b) shall be determined by summing the products of hourly NOx emission rate and heat input rate data from the CEMS's. Emissions during periods of startup, shutdown, and malfunction shall be considered in determining the total emissions. [Applicant request.]

33. Particulate Matter:

(a) Initial compliance tests only shall be performed on Units 1 and 2 using EPA Methods 5, 5B, 8, 17, or 29 to determine compliance with the particulate matter (PM) limits in Condition 16(a) while firing petroleum coke, and an additional initial compliance test shall be performed on Unit 2 while firing coal. Quarterly tests shall be conducted for the first two years (eight quarters), then annually thereafter while firing petroleum coke. If

petroleum coke has been fired for less than 200 hours during the previous quarter or less than 400 hours during the previous federal fiscal year, the testing may be performed while firing coal.

(b) Initial and annual compliance tests shall be performed on Units 1 and 2 using EPA Methods 201 or 201A, to determine compliance with the particulate matter-10 microns or smaller (PM10) limits in Condition 16(b) while firing petroleum coke, and an additional initial test shall be performed on Unit 2 while firing coal. If petroleum coke has been fired for less than 400 hours during the previous federal fiscal year, the annual testing may be performed while firing coal.

(c) Compliance with the annual particulate matter (PM) emissions limit in Condition 16(c) shall be determined using the following formula. This formula shall be used for each fuel consumed by each of Units 1, 2 and 3, and the resulting PM emissions summed to obtain a 12-month total for Units 1, 2, and 3. [Applicant request.]

PM Emissions = (Fuel Usage[a]) x (Emission Factor[b]) x unit conversion factors

[a]The "Fuel Usage" shall be measured by calibrated fuel flow meters (±5 percent accuracy) and recorded daily when a unit is operated.

[b]An "Emissions Factor" of [(9.19 x weight percent sulfur content) + 3.22] pounds per thousand gallons (lbs/10^3 gal) shall be used for fuel oil burned in existing Units 1 and 3. The weight percent sulfur content shall be determined based on an analysis of a representative sample of the fuel oil being consumed. The analysis shall be performed using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition. An "Emissions Factor" of 5 pounds per million cubic feet (lb/MCF) shall be used for natural gas burned in existing Units 1 and 3. For Repowered Units 1 and 2, the "Emissions Factor" shall be based on particulate matter stack test results using EPA Methods 5, 5B, 8, 17, or 29 for the individual units, and shall apply to the quantities of fuel consumed in the individual units during the period immediately following the stack tests for the respective units until subsequent stack tests are completed.

(c) Initial compliance tests only shall be performed on the limestone dryers to determine compliance with the particulate matter limit in Condition 25 using EPA Method 5.

34. Carbon Monoxide:

(a) Compliance with the short-term carbon monoxide (CO) limit in Condition 17 shall be demonstrated with CEMS's installed, calibrated, operated, and maintained in accordance with 40 CFR Part 60, Appendix B based on a 24-hour block average and excluding periods of startup, shutdown, and malfunction.

(b) Compliance with the annual CO limit in Condition 17 shall be demonstrated by summing the products of hourly CO emission rate and heat input rate data from the CEMS's. Emissions during periods of startup, shutdown, and malfunction shall be considered in determining the total emissions. [Applicant request.]

35. Valid Data: For the continuous monitoring systems required under Conditions 31(a), 32(a), and 34(a), the permittee shall determine compliance based on CEMS data at the end of each operating day (midnight to midnight), new 24-hour block and 30-day average emission rates shall be calculated from the arithmetic average of all valid hourly emission rates during the previous 24-hours or 30 operating days, as appropriate. Valid hourly emission rates shall not include periods of startup, shutdown, or malfunction as defined in Rule 62-210.200 where emissions exceed the standards in Table 1. These excess emission periods shall be reported as required in Section II, Condition 13. A valid hourly emission rate shall be calculated for each hour in which at least two concentrations are obtained at least fifteen (15) minutes apart.

36. Volatile Organic Compounds: Initial compliance tests shall be performed on Units 1 and 2 using EPA Method 18, 25, or 25A to determine compliance with the volatile organic compound (VOC) emission limit in Condition 18 while firing petroleum coke, and an additional initial test shall be performed on Unit 2 while firing coal. Compliance testing shall also be conducted once within every five years thereafter while firing petroleum coke. This testing may be conducted while firing coal if petroleum coke has been fired for less than 400 hours per federal fiscal year during the previous 5 years, per unit. Compliance with the CO limits based on CEMS data shall be used as surrogates to indicate compliance with the VOC limits.

37. Lead: Initial compliance tests only shall be performed on Unit 2 using EPA Method 12 or 29 to determine compliance with the lead emission limit in Condition 19 while firing coal and while firing petroleum coke.

38. Sulfuric Acid Mist: Initial compliance tests only shall be performed on Unit 1 using EPA Method 8 to determine compliance with the sulfuric acid mist emission limit in Condition 20 while firing petroleum coke and while firing coal. In addition, compliance with the SO_2 limits based on CEMS data shall be used as a surrogate to indicate compliance with the sulfuric acid mist limit.

39. Hydrogen Fluoride: Initial compliance tests only shall be performed on Unit 2 using EPA Method 13A or 13B to determine compliance with the hydrogen fluoride emission limit in Condition 21 while firing coal and while firing petroleum coke.

40. Mercury: Initial compliance tests only shall be performed on Unit 2 using EPA Methods 29, 101, or 101A to determine compliance with the mercury emission limit in Condition 22 while firing coal and while firing petroleum coke.

41. Materials Handling Operations: Visible emissions tests shall be conducted on the materials 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

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

42. Testing Notifications and Capacity: RESD shall be notified, in writing, at least 30 days prior to the initial compliance tests and at least 15 days before annual compliance test(s). Testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, as determined using fuel flow data and the as-fired heat content of the fuel. If it is impracticable to test at permitted capacity, the unit may be tested at less than permitted capacity. In this case, subsequent operation is limited to 110 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Compliance test results shall be submitted to RESD no later than 45 days after completion of the last test run.

43. Sulfur Content: Vendor or other fuel sampling and analysis data (using applicable ASTM methods) shall be used to determine that the sulfur content of No. 2 fuel oil used in Units 1 and 2 and in the limestone dryers does not exceed 0.05 percent by weight.

NOTIFICATION, REPORTING AND RECORDKEEPING

44. Records: All measurements, records, and other data required to be maintained by JEA shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP and RESD representatives upon request.

45. Compliance Stack Test Reports: A test report indicating the results of the required compliance tests shall be filed with RESD as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310(8), F.A.C.]. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow RESD to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.

46. Certification Testing of Monitors: As required under the federal Acid Rain Program, the Acid Rain Monitoring Plan for Northside shall be revised to address the new Continuous Emissions Monitoring Systems (CEMS's) for sulfur dioxide, oxides of nitrogen, and visible emissions (opacity) for Repowered Northside Units 1 and 2. The permittee shall provide a copy of this revised plan, as well as model and serial numbers for each of the monitors, to RESD within 45 days after completion of all certification tests. In addition, the permittee shall provide notification that the carbon monoxide CEMS's meet the performance specifications in 40 CFR Part 60, Appendix B (as applicable), and also provide model and serial numbers to RESD within 45 days after completion of the performance specification tests.

47. NSPS Notifications: The permittee shall provide all notices required under 40 CFR Sections 60.7 and 60.8 (as revised 64 Fed. Reg. 7458, Feb. 12, 1999) to RESD, for each unit subject to an NSPS, including:

(a) Notification of the date of construction, postmarked no later than 30 days after such date;

(b) Notification of the anticipated date of initial startup, postmarked not more than 60 days nor less than 30 days prior to such date; and

(c) Notification of the actual date of initial startup, postmarked within 15 days after such date.

(d) Notification of any performance test at least 30 days prior to the test and at least 7 days prior notice if a test postponed due to a delay or otherwise by mutual agreement between the permittee and RESD.

48. Quarterly Compliance Reports for Annual Limits: The permitee shall provide reports quarterly to RESD certifying compliance with the 12-month rolling limits on SO_2, NOx and PM (TSP) for Northside Units 1, 2, and 3 set forth in Conditions 14(b), 15(b), and 16(b). The reports shall be submitted within 45 days after the last day of each calendar quarter. [Applicant request.]

MONITORING REQUIREMENTS

49. Continuous Emissions Monitoring Systems: The permittee shall install, calibrate, operate, and maintain Continuous Emission Monitoring Systems (CEMS's) in the stack to measure and record the sulfur dioxide, oxides of nitrogen, carbon monoxide, and visible emissions from Units 1 and 2. An emission level above a BACT limit, considering the 6-minute, 24-hour and 30-day rolling average periods, as applicable, shall be reported to RESD pursuant to Rule 62-4.160(8), F.A.C. The continuous emission monitoring systems shall comply with the certification, performance specifications, and quality assurance, and other applicable requirements of 40 CFR Part 75 and 40 CFR Part 60 (Appendix B), as indicated above. Periods of startup, shutdown, and malfunction shall be monitored, recorded, and reported as excess emissions when emission levels exceed the limits in Table 1 following the format of 40 CFR 60.7 (As revised, 64 Fed Reg. 7458 (Feb. 12, 1999)).

50. Determination of Process Variables:

(a) The permittee shall operate and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Equipment or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C]

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