

Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

David B. Struhs Secretary

September 30, 2003

Mr. James M. Chansler, P.E., D.P.A. V.P., Operations and Maintenance and Responsible Official JEA 21 West Church Street Jacksonville, Florida 32202

Re:

Draft Air Construction Permit No.: 0310045-012-AC/PSD-FL-010E/PSD-FL-265B

DRAFT Title V Air Operation Permit Renewal No.: 0310045-011-AV

JEA

Northside Generating Station/St. Johns River Power Park

Dear Mr. Chansler:

One copy of the Technical Evaluation and Preliminary Determination, the combined Public Notice, the Draft Air Construction Permit, and the DRAFT Title V Air Operation Permit Renewal for the JEA's Northside Generating Station/St. Johns River Power Park located at 4377 Heckscher Drive, Jacksonville, Duval County, is enclosed. The permitting authority's "INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT RENEWAL" and the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT RENEWAL" are also included.

An electronic version of the DRAFT Title V Air Operation Permit Renewal has been posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is:

"http://www.dep.state.fl.us/air/permitting/airpermits/AirSearch ltd.asp"

The "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT RENEWAL" must be published as soon as possible. Please expedite your review of this DRAFT permit, because of the requirement that all Title V permits with Acid Rain Parts must have an effective date of January 1st. To stay on schedule, the Public Notice should be published by October 3, 2003. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Scott M. Sheplak, P.E., at the above letterhead address. If you have any other questions, please contact Bruce Mitchell at 850/413-9198.

11 . Q.

Sincerely,

Trina L. Vielhauer

Chief

Bureau of Air Regulation

TLV/sms/bm

Enclosures

"More Protection, Less Process"

Printed on recycled paper.



Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

David B. Struhs Secretary

Month Day, 2003

CERTIFIED MAIL - Return Receipt Requested

Mr. James M. Chansler, P.E., D.P.A. V.P., Operations and Maintenance and Responsible Official JEA

DRAFT

21 West Church Street Jacksonville, Florida 32202

Re: Draft Air Construction Permit No.: 0310045-012-AC/PSD-FL-010E/PSD-FL-265B JEA: Northside Generating Station and St. Johns River Power Park

Dear Mr. Chansler:

This letter (permit) will (1) allow coal coated with latex to be burned in the Northside Generating Station (NGS) circulating fluidized bed (CFB) Boilers Nos. 1 and 2; (2) modify some language of some federally enforceable specific conditions (SCs) established in some previously issued air construction (AC) permits for clarity purposes; (3) remove two emissions units from the NGS Materials Handling and Storage Operations that were never constructed and rename some of the emissions units that were constructed without changing any of their limits and compliance requirements; and, (4) recognize that an operation at St. Johns River Power Park (SJRPP) identified in two tables, specifically Revised Table 2 and Revised Table 6 (PSD-FL-010, amended October 28, 1986), has been removed from service. Therefore, the following are changed as follows:

1. SCs III.4., 23. & 24.(b), 0310045-003-AC/PSD-FL-265. With the addition of coal coated with latex being allowed as a fuel for the NGS CFB Boilers Nos. 1 and 2, then the following are changed:

FROM:

- a. SC III.4.:
- 4. <u>Fuels</u>: Only coal, petroleum coke, No. 2 fuel oil (maximum sulfur content of 0.05 percent by weight), and natural 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. [Rule 62-210.200(228), F.A.C.]
- b. <u>SC III.23.</u>:
- 23. <u>Throughput rates</u>: 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:

Handling/Usage Rate

Material Tons Per Year

Coal/Petroleum Coke 2.42 million

Limestone 1.45 million

In the Matter of an Application for Permits by:

JEA Draft Air Construction Permit No.: 0310045-012-AV

21 West Church Street PSD-FL-010E/PSD-FL-265B

Jacksonville, Florida 32202 DRAFT Title V Air Operation Permit Renewal No.: 0310045-011-AV

Northside Generating Station/St. Johns River Power Park

Duval County

INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT RENEWAL

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue An Air Construction Permit and a Title V Air Operation Permit Renewal (copies of the Draft Air Construction Permit and DRAFT Title V Air Operation Permit Renewal attached) for the Title V source detailed in the application specified above, for the reasons stated below.

The permittee, JEA, submitted a request on June 21, 2003, for a Title V Air Operation Permit Renewal, and on August 26, 2003, submitted a request for an Air Construction Permit for the existing facilities located at 4377 Berkscher Drive, Jacksonville, Duval County.

The subject of the Air Construction Permit amendment is to: (1) allow coal coated with latex (used as a dust suppressant during the transporting of the coal from the mine) to be burned in the Northside Generating Station's (NGS) new circulating fluidized bed (CFB) Boilers Nos. 1 and 2; (2) modify some language of some federally enforceable specific conditions (SCs) established in some previously issued air construction (AC) permits for clarity purposes; (3) remove two emissions units from the NGS Materials Handling and Storage Operations that were never constructed and rename some of the emissions units that were constructed without changing any of their limits and compliance requirements; and, (4) recognize that an operation at St. Johns River Power Park (SJRPP) identified in two tables, specifically Revised Tables 2 & 6 (PSD-FL-010, amended 10/28/1986), has been removed from service.

The subject of this permit is for the renewal of the Title V Air Operation Permit, which includes 1) the incorporation of air construction permits, Nos. 0310045-003-AC/PSD-FL-265 and 0310047-007-AC/PSD-FL-265A, for the Repowering of Boilers Nos. 1 and 2 (natural gas and fuel oil fired) with Circulating Fluidized Bed (CFB) Boilers Nos. 1 and 2 (coal, petroleum coke, natural gas and fuel oil fired) at the NGS; 2) the incorporation of air construction permit, No. 0310045-012-AC/PSD-FL-010E/PSD-FL-265B; 3) removing some obsolete Specific Conditions due to the retirement of NGS existing Boilers Nos. 1 and 2 and Auxiliary Boiler No. 1; 4) establishing a Compliance Plan for some initial testing of some newly constructed emissions units at NGS during the Repowering of Boilers Nos. 1 and 2; 5) adding some insignificant activities to Appendix I; and, 6) editing some Specific Conditions in the Title V Permit for clarity purposes from the last revision to the Title V Permit, No. 0310045-008-AV.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 62-212, 62-213 and 62-214, F.A.C. This source is not exempt from Title V permitting procedures. The permitting authority has determined that an Air Construction Permit and a Title V Air Operation Permit Renewal are required to commence or continue operations at the described facility.

The permitting authority intends to issue the Air Construction Permit and Title V Air Operation Permit Renewal based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.; the City of Jacksonville Ordinance Code, Title X, Chapter 376; and, the Jacksonville Environmental Protection Board Rule 2, Parts I thru VII and Parts IX thru XII.

Draft Air Construction Permit No.: 0310045-012-AC/PSD-FL-010E/PSD-FL-265B DRAFT Title V Air Operation Permit Renewal No.: 0310045-011-AV Page 2 of 5

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT RENEWAL." The notice shall be published one time only as soon as possible 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. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority 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: 850/488-1344; Fax: 850/922-6979), 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 pursuant to Rule 62-110.106, F.A.C.

The permitting authority will issue the Final Air Construction Permit and the PROPOSED Title V Air Operation Permit and subsequent FINAL Title V Air Operation Permit, in accordance with the conditions of the attached Draft Air Construction Permit and the DRAFT Title V Air Operation Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT RENEWAL." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

The permitting authority will accept written comments concerning the proposed Title V Air Operation Permit Revision issuance action for a period of 30 (thirty) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT RENEWAL." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Title V Air Operation Permit, the permitting authority shall issue a Revised DRAFT Title V Air Operation Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with 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 of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). 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), F.S., must be filed within fourteen days of publication of the public notice or within 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 permitting authority for notice of agency action may file a petition within fourteen 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

Draft Air Construction Permit No.: 0310045-012-AC/PSD-FL-010E/PSD-FL-265B DRAFT Title V Air Operation Permit Renewal No.: 0310045-011-AV Page 3 of 5

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 officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the permitting authority'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 each 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;
- (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 permitting authority'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, F.A.C.

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

Mediation will not be available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

- (a) The name, address, and telephone number of the petitioner;
- (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;
 - (c) Each rule or portion of a rule from which a variance or waiver is requested;
 - (d) The citation to the statute underlying (implemented by) the rule identified in (c) above;
 - (e) The type of action requested;
 - (f) The specific facts that would justify a variance or waiver for the petitioner;
- (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and,

Draft Air Construction Permit No.: 0310045-012-AC/PSD-FL-010E/PSD-FL-265B DRAFT Title V Air Operation Permit Renewal No.: 0310045-011-AV Page 4 of 5

(h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of the EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Trina L. Vielhauer

Chief

Bureau of Air Regulation

True IVielham

Draft Air Construction Permit No.: 0310045-012-AC/PSD-FL-010E/PSD-FL-265B DRAFT Title V Air Operation Permit Renewal No.: 0310045-011-AV

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CERTIFICATE OF SERVICE

Mr. James M. Chansler, P.E., D.P.A., V.P., Operations and Maintenance, Responsible Official and Designated Representative, JEA

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT RENEWAL (including the combined PUBLIC NOTICE and the Statement of Basis) were sent by U.S. mail on the same date to the person(s) listed:

Mr. Bert Gianazza, P.E., JEA, Application Contact

Mr. Hamilton Oven, P.E., DEP-SCO

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT RENEWAL (including the Draft Air Construction Permit and the DRAFT Title V Air Operation Permit packages) were sent by INTERNET E-mail on the same date to the person(s) listed:

Mr. Richard Robinson, P.E., RESD U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on

this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby

acknowledged.

Clerk)

STATEMENT OF BASIS

JEA
Northside Generating Station/St. Johns River Power Park
Facility ID No.: 0310045
Duval County

Title V Air Operation Permit Renewal **DRAFT Permit No.:** 0310045-011-AV

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

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

The subject of this permit is for the renewal of the Title V Air Operation Permit, which includes 1) the incorporation of air construction permits, Nos. 0310045-003-AC/PSD-FL-265 and 0310045-007-AC/PSD-FL-265A, for the Repowering of Boilers Nos. 1 and 2 (natural gas and fuel oil fired) with Circulating Fluidized Bed (CFB) Boilers Nos. 1 and 2 (coal, petroleum coke, natural gas and fuel oil fired) at the NGS; 2) the incorporation of air construction permit, No. 0310045-012-AC/PSD-FL-010E/PSD-FL-265B, to allow the burning of coal coated with latex (used as a dust suppressant during the transporting of the coal from the mine) in NGS's CFB Boilers Nos. 1 and 2; 3) removing some obsolete Specific Conditions due to the retirement of NGS existing Boilers Nos. 1 and 2 and Auxiliary Boiler No. 1 (see specific conditions A.3.b. and A.41); 4) establishing a Compliance Plan for some initial testing of some newly constructed emissions units at NGS during the Repowering of Boilers Nos. 1 and 2; 5) adding some insignificant activities to Appendix I; and, 6) editing some Specific Conditions in the Title V Permit for clarity purposes, specifically A.5., C.9., D.68., D.69., D.70., F.1, F.3., F.4., F.5. and F.10., from the last revision to the Title V Permit, No. 0310045-008-AV.

This facility consists of 5 boilers, NGS existing Boiler No. 3, which is a pre-NSPS boiler with a nominal rating of 564 MW and fired by natural gas, landfill gas, No. 6 residual fuel oil, and used oil (Boilers Nos. 1 and 2 and Auxiliary Boiler No. 1 have been permanently shutdown); NGS CFB Boilers Nos. 1 and 2, which are two new coal- and petroleum coke-fired circulating fluidized bed (CFB) boilers; SJRPP Boilers Nos. 1 and 2, which are two fossil fuel-fired steam generators (boilers) fired with pulverized coal, a blend of petroleum coke and coal, new No. 2 distillate fuel oil (startup and low-load operation), and "onspecification" used oil; and, four pre-NSPS distillate fuel oil fired combustion turbines with a nominal rating of 52.5 MWs each, NGS Nos. 3, 4, 5 and 6. Emissions from the NGS Boiler No. 3 are uncontrolled. Emissions from the NGS CTs Nos. 3, 4, 5 and 6, are controlled firing low sulfur fuel oil. Each NGS CFB boiler is equipped with a selective non-catalytic reduction (SNCR) system to reduce NO, emissions, limestone injection to reduce SO₂ emissions, fabric filter to reduce particulate matter (PM & PM₁₀) emissions, while maximizing combustion efficiency and minimizing NO_x formation to limit CO and VOC emissions. Emissions from the SJRPP Boilers Nos. 1 and 2 are controlled with an electrostatic precipitator, a limestone scrubber, and low-NO_x burners. The SJRPP and NGS facilities also include coal, petroleum coke, limestone and flyash handling activities, of which various control devices, control strategies, and control techniques are required.

Each materials handling and storage operation will employ one or more control strategies to limit emissions of particulate matter to meet specific emission limitations and/or visible emissions limits. The control strategies include the use of best operating/design practices, total or partial enclosures, conditioned materials, wet suppression, water sprays, and dust collection systems.

Statement of Basis

Jacksonville Electric Authority

Northside Generating Station/St. Johns River Power Park

Facility ID No.: 0310045

Title V Air Operation Permit Renewal **DRAFT Permit No.:** 0310045-011-AV

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

A Compliance Assurance Monitoring (<u>CAM</u>) Plan has been included for the SJRPP's Boilers Nos. 1 and 2 and NGS's CFB Boilers Nos. 1 and 2.

Based on the initial Title V permit application received June 20, 2003, this facility is a major source of hazardous air pollutants (HAPs).

As stated above, the following changes being made to the Specific Conditions (SCs) of the Title V Permit are:

1. Section III. Subsection A. Specific Conditions A.3.b. and A.41. Since NGS existing Boilers Nos. 1 and 2 and Auxiliary Boiler No. 1 have been retired and no longer in service, then the Department agrees that a fuel oil cap related to these emissions units and the remaining NGS existing Boiler No. 3 is not pertinent and, essentially, obsolete. Therefore, the following has been changed:

FROM:

A.3. Methods of Operation - Fuels.

- a. The only fuels allowed to be burned are natural gas, LP gas, landfill gas, new No. 6 fuel oil, "on-specification" used oil, and a blend of fuel oil and natural gas and/or landfill gas. "On-specification" used oil containing any quantifiable levels of PCBs can only be fired when the emissions unit is at normal operating temperatures. LP gas is used as the igniter fuel when natural gas is not available.
- b. The total station (NGS Boiler No. 3 residual fuel oil consumption must not exceed 1,440,000 pounds in any consecutive three (3) hour period.

[Rule 62-213.410, F.A.C.; 40 CFR 271.20(e)(3); AO16-194743, AO16-178094 and AO16-207528; AC16-85951 and BACT; applicant request dated June 14, 1996; and, 0310045-012-AC]

A.41. When electrical power demand requires all three main NGS boilers to be on line, the total station residual (No. 6) fuel oil consumption shall be recorded for each four-hour period whenever the NGS auxiliary steam generator (boiler) is operating. The recorded fuel consumption data shall be retained for at least five (5) years.

[Rule 62-213.440, F.A.C.; and, AC16-85951]

TO:

A.3. Methods of Operation - Fuels.

a. The only fuels allowed to be burned are natural gas, LP gas, landfill gas, new No. 6 fuel oil, "on-specification" used oil, and a blend of fuel oil and natural gas and/or landfill gas. "On-specification" used oil containing any quantifiable levels of PCBs can only be fired when the emissions unit is at normal operating temperatures. LP gas is used as the igniter fuel when natural gas is not available.

b. Reserved.

[Rule 62-213.410, F.A.C.; 40 CFR 271.20(e)(3); AO16-194743, AO16-178094 and AO16-207528; AC16-85951 and BACT; applicant request dated June 14, 1996; and, 0310045-012-AC]

A.41. Reserved. [0310045-012-AC]

Statement of Basis

Jacksonville Electric Authority

Northside Generating Station/St. Johns River Power Park

Facility ID No.: 0310045

Title V Air Operation Permit Renewal **DRAFT Permit No.:** 0310045-011-AV

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2. Section III. Subsection A. Specific Condition A.5. The Department agrees that "particulate matter emissions" should be "visible emissions" and the following has been changed:

FROM:

A.5. <u>Visible Emissions</u>. For Boiler No. 3, visible emissions shall not exceed 40 percent opacity. Emissions units governed by this visible emissions limit shall compliance test for particulate matter emissions annually and as otherwise required by Chapter 62-297, F.A.C. [Rules 62-296.405(1)(a) and 62-296.702(2)(b), F.A.C.; Part X, Rule 2.1001, JEPB; and, AO16-194743 and AO16-207528]

TO:

- A.5. <u>Visible Emissions</u>. For Boiler No. 3, visible emissions shall not exceed 40 percent opacity. Emissions units governed by this visible emissions limit shall compliance test for visible emissions annually and as otherwise required by Chapter 62-297, F.A.C. [Rules 62-296.405(1)(a) and 62-296.702(2)(b), F.A.C.; Part X, Rule 2.1001, JEPB; and, AO16-194743 and
- [Rules 62-296.405(1)(a) and 62-296.702(2)(b), F.A.C.; Part X, Rule 2.1001, JEPB; and, AO16-194743 and AO16-207528]
- 3. Section III. Subsection C. Specific Condition C.9. The Department does not care if the fuel oil vendor provides an analysis of the fuel oil delivered or the permittee gets an analysis of the fuel oil being delivered. Therefore, the following has been changed:

FROM:

C.9. 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. See specific conditions C.6. and C.12. [Rule 62-213.440, F.A.C.]

TO:

- C.9. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis for each fuel delivery. See specific conditions C.6. and C.12. [Rule 62-213.440, F.A.C.]
- 4. Section III. Subsection D. Specific Conditions D.68., D.69. and D.70. Since these specific conditions have been satisfied, then they have become obsolete. Therefore, the following has been changed:

FROM:

D.68. <u>Nitrogen Oxides and Particulate Matter</u>. The permittee shall maintain and submit to the Department and RESD, on an annual basis for a period of five years from the date each emissions unit begins co-firing petroleum coke, data demonstrating in accordance with 40 CFR 52.21(b)(21)(v) and 40 CFR 52.21(b)(33) that the operational change associated with the use of petroleum coke did not result in a significant emission increases of nitrogen oxides and particulate matter.

[Rule 62-213.440, F.A.C.; and, Part V, Rule 2.501, JEPB; and, PSD-FL-010(A) & (B)]

D.69. <u>Carbon Monoxide</u>. The permittee shall maintain and submit to the Department and RESD, on a semiannual basis for a period of two years from the date each emissions unit begins co-firing petroleum coke, and then on an annual basis (if the first two years of data show no significant increase in carbon monoxide emissions) for an additional three years, information demonstrating that the operational changes did not result in a significant emissions increase of carbon monoxide. The carbon monoxide emissions shall

Statement of Basis
Jacksonville Electric Authority

Northside Generating Station/St. Johns River Power Park

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be based on test results using EPA Method 10. Additionally, quarterly continuous emissions monitoring data for carbon monoxide emissions shall be submitted to the Department and RESD for a period of two years to show the range of emissions experienced during each quarter.

[Rule 62-210.200(12)(d), F.A.C.; Part III, Rule 2.301, JEPB; and, PSD-FL-010(A) & (B)]

D.70. <u>Sulfuric Acid Mist</u>. The permittee shall maintain and submit to the Department and AWQD, on a semiannual basis for a period of two years from the date each emissions unit begins co-firing petroleum coke, information demonstrating that the operational changes did not result in a significant emissions increase of sulfuric acid mist. The sulfuric acid mist emissions shall be based on test results using EPA Method 8.

[Rule 62-210.200(12)(d), F.A.C.; Part III, Rule 2.301, JEPB

TO:

D.68. Reserved. [0310045-012-AC/PSD-FL-010E]

D.69. Reserved. [0310045-012-AC/PSD-FL-010E]

D.70. Reserved. [0310045-012-AC/PSD-FL-010E]

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

JEA

Northside Generating Station/St. Johns River Power Park Jacksonville, Duval County Florida

> Permit Project No.: 0310045-012-AC PSD-FL-010E PSD-FL-265B

State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

1. APPLICATION INFORMATION

1.1 Applicant Name and Address

JEA

21 West Church Street
Jacksonville, Florida 32202

Authorized Representative: Mr. James M. Chansler, P.E., D.P.A., V.P., Operations and Maintenance

1.2 Reviewing and Process Schedule

08-26-2003:

Date of Receipt of Application

2. FACILITY INFORMATION

2.1 Facility Location

The Northside Generating Station (NGS) and St. Johns River Power Park (SJRPP) are located in Duval County on the north shore of the St. Johns River, approximately 10 miles west of the Atlantic Ocean and 9 miles north-east of the Jacksonville downtown area (Figure TE-1). The NGS is located adjacent to the St. Johns River Power Park (SJRPP) and is approximately 60 kilometers and 97 kilometers from the Okefenokee and Wolf Island National Wilderness Areas, respectively. Both of these areas are designated Class I PSD Areas. The UTM coordinates of this facility are Zone 17; 446.7 km E; 3,363.5 km N.

2.2 Standard Industrial Classification Codes (SIC)

Industry Group No.	.49	Electric, Gas, and Sanitary Services
Industry No.	4911	Electric Services

2.3 Facility Category

NGS and SJRPP are collectively classified as a major facility under the Prevention of Significant Deterioration (PSD) program. NGS and SJRPP are also considered a single major source under the Title V Operating Permit program and have been assigned the facility identification number 310045 in the Department database (ARMS system). NGS and SJRPP are both subject to the Acid Rain program and have been assigned ORIS Codes 0067 and 0207, respectively. NGS is identified within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C.

3. PROJECT DESCRIPTION

The subject of the Air Construction permit (letter) is to (1) allow coal coated with latex to be burned in the Northside Generating Station (NGS) circulating fluidized bed (CFB) Boilers Nos. 1 and 2; (2) modify some language of some federally enforceable specific conditions (SCs) established in some previously issued air construction (AC) permits; (3) remove two emissions units from the NGS Materials Handling and Storage Operations that were never constructed and rename some of the emissions units that were constructed without changing any of their limits and compliance requirements; and, (4) recognize that an operation at St. Johns River Power Park (SJRPP) identified in two tables, specifically Revised Table 2 and Revised Table 6 (PSD-FL-010, amendment dated October 28, 1986), has been removed from service.

The firing of the latex coated coal in the NGS CFB Boilers 1 and 2 is not expected to increase any actual or potential particulate matter emissions due to the very small amount of coating applied to the coal at the mine.

NGS emissions units EU-032 and EU-039 were never constructed and will be removed from the text being incorporated from the air constructed permit, No. 0310045-003-AC/PSD-FL-265.

Since the existing NGS Boilers Nos. 1 and 2 and Auxiliary Boiler No. 1 have been retired, then the text relating to these units will be removed from the Title V Permit.

This AC/PSD permit change is being made to recognize that an operation, which are identified as #17 in Revised Table 2 and #18 in Revised Table 6, have been removed from service. Therefore, any references to #17 in Revised Table 2 and #18 in Revised Table 6 will be removed from the Title V permit's text and considered a retired emissions unit/activity.

4. RULE APPLICABILITY

The proposed project (modification) is subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The modification of removing some obsolete federally enforceable conditions and updating some operations contained in a Table associated with an AC/PSD permit did not bring about a significant increase in any pollutant and is, therefore, not subject to any new source review requirements of Rule 62-212.400(5), F.A.C. Therefore, the changes being made are considered to be a minor modification to a major facility.

5. SOURCE IMPACT ANALYSIS

5.1 Air Quality

No air quality analysis evaluation was required for this project. This proposed permitting action should not cause a violation of any air quality standard or increment.

6. **CONCLUSION**

Based on the foregoing technical evaluation, the Department has made a preliminary determination that the proposed project will be in compliance with all applicable state and federal air pollution regulations. The Specific Conditions that are being changed are provided in the attached draft permit.

Permit Engineer: Bruce Mitchell

Reviewed and Approved by Scott M. Sheplak, P.E.



Department of Environmental Protection

Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

David B. Struhs Secretary

P.E. Certification Statement

Permittee:

Jacksonville Electric Authority

Northside Generating Station/St. Johns River Power Park

Project type: Title V Air Operation Permit Renewal/Air Construction Permit Amendment

I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hidrological, and geological features).

Scott M. Sheplak, P.

Registration Number: 488664

Permitting Authority:

Department of Environmental Protection Bureau of Air Regulation 111 South Magnolia Drive, Suite 4 Tallahassee, Florida 32301

DRAFT Permit No.: 0310045-011-AV

Draft Permit No.: 0310045-012-AC

Telephone: 850/921-9532

Fax: 850/922-6979

PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE VAIR OPERATION PERMIT RENEWAL

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Construction Permit No.: 0310045-012-AC/PSD-FL-010E/PSD-FL-265B DRAFT Title V Air Operation Permit Renewal No.: 0310045-011-AV

JEA

Northside Generating Station/St. Johns River Power Park
Duval County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an Air Construction Permit and a Title V Air Operation Permit Renewal to JEA for the Northside Generating Station/St. Johns River Power Park located at 4377 Heckscher Drive, Jacksonville, Duval County. The applicant's name and address are: Mr. James M. Chansler, P.E., D.P.A., V.P., Operations and Maintenance and Responsible Official, JEA, 21 West Church Street, Jacksonville, Florida 32202.

The subject of the Air Construction Permit amendment is to: (1) allow coal coated with latex (used as a dust suppressant during the transporting of the coal from the mine) to be burned in the Northside Generating Station's (NGS) new circulating fluidized bed (CFB) Boilers Nos. 1 and 2; (2) modify some language of some federally enforceable specific conditions (SCs) established in some previously issued air construction (AC) permits for clarity purposes; (3) remove two emissions units from the NGS Materials Handling and Storage Operations that were never constructed and rename some of the emissions units that were constructed without changing any of their limits and compliance requirements; and, (4) recognize that an operation at St. Johns River Power Park (SJRPP) identified in two tables, specifically Revised Tables 2 & 6 (PSD-FL-010, amended 10/28/1986), has been removed from service.

The subject of this permit is for the renewal of the Title V Air Operation Permit, which includes 1) the incorporation of air construction permits, Nos. 0310045-003-AC/PSD-FL-265 and 0310047-007-AC/PSD-FL-265A, for the Repowering of Boilers Nos. 1 and 2 (natural gas and fuel oil fired) with Circulating Fluidized Bed (CFB) Boilers Nos. 1 and 2 (coal, petroleum coke, natural gas and fuel oil fired) at the NGS; 2) the incorporation of air construction permit, No. 0310045-012-AC/PSD-FL-010E/PSD-FL-265B; 3) removing some obsolete Specific Conditions due to the retirement of NGS existing Boilers Nos. 1 and 2 and Auxiliary Boiler No. 1; 4) establishing a Compliance Plan for some initial testing of some newly constructed emissions units at NGS during the Repowering of Boilers Nos. 1 and 2; 5) adding some insignificant activities to Appendix I; and, 6) editing some Specific Conditions in the Title V Permit for clarity purposes from the last revision to the Title V Permit, No. 0310045-008-AV.

The permitting authority will issue the Final Air Construction Permit and the PROPOSED Title V Air Operation Permit and subsequent FINAL Title V Air Operation Permit, in accordance with the conditions of the Draft Air Construction Permit and the DRAFT Title V Air Operation Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this

Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

The permitting authority will accept written comments concerning the proposed DRAFT Title V Air Operation Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Title V Air Operation Permit, the permitting authority shall issue a Revised DRAFT Title V Air Operation Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen 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 applicable 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 officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the permitting authority'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; 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 petitioner's substantial rights will be affected by the agency determination;
- (c) A statement of how and when the 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 state;
- (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief; and,
 - (f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority'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, F.A.C.

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

Mediation is not available for this proceeding.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the

Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

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:

Permitting Authority:

Department of Environmental Protection Bureau of Air Regulation 111 South Magnolia Drive, Suite 4 Tallahassee, Florida 32301 Telephone: 850/488-0114

Fax: 850/922-6979

Affected Local Program:

City of Jacksonville
Regulatory and Environmental Services Department
Air & Water Quality Division
421 West Church Street, Suite 422
Jacksonville, Florida 32202-4111
Telephone: 904/630-3484

Fax: 904/630-3638

The complete project file includes the Technical Evaluation and Preliminary Determination and associated Draft Air Construction Permit and DRAFT Title V Air Operation Permit Renewal, the application(s), and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/921-9532, for additional information.

SENDER: COMPLETE TI	HIS SECTION	COMPLETE	THIS SEC	TION ON D	ELIVER	Υ	
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Mr. James M. Chansler JEA: Northside Generating Station and St. Johns River Power Park 0310045-012-AC/PSD-FL-010E/PSD-FL-265B Page 2 of 12

c. SC III.24.(b):

- 24. <u>Standards</u>. The materials processing sources at NGS shall be regulated as follows, and the emission limits and standards shall apply upon completion of the initial compliance tests for each of the units or activities.
 - (b) The following materials handling sources shall use wet suppression, water spray, coverings, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 5 percent opacity:
 - (1) Transfer towers (EU-028c, EU-028g, EU-028i, EU-028o and EU-028q)
 - (2) Coal and petroleum coke storage building (EU-028h)
 - (3) Stacker/reclaimers (EU-028)
 - (4) Limestone lowering well (EU-028d)
 - (5) Conveyors (EU-028)

TO:

a. SC III.4.:

4. <u>Fuels</u>: Only coal, coal coated with latex, petroleum coke, No. 2 fuel oil (maximum sulfur content of 0.05 percent by weight), and natural 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.

[0310045-003-AC/PSD-FL-265; and, 0310045-012-AC/PSD-FL-265B]

b. SC III.23.:

23. <u>Throughput rates</u>: The materials handling and usage rates for coal, coal coated with latex, 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:

MaterialHandling/Usage RateMacterialTons Per YearCoal/Coal coated with latex/Petroleum Coke2.42 millionLimestone1.45 million

[0310045-003-AC/PSD-FL-265; and, 0310045-012-AC/PSD-FL-265B]

c. SC III.24.(b):

- 24. <u>Standards</u>. The materials processing sources at NGS shall be regulated as follows, and the emission limits and standards shall apply upon completion of the initial compliance tests for each of the units or activities.
 - (b) The following materials handling sources shall use wet suppression, water spray, coverings, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 5 percent opacity:
 - (1) Transfer towers (EU-028c, EU-028g, EU-028i, EU-028o and EU-028q)
 - (2) Coal, coal coated with latex and petroleum coke storage building (EU-028h)
 - (3) Stacker/reclaimers (EU-028)
 - (4) Limestone lowering well (EU-028d)
 - (5) Conveyors (EU-028)
- 2. SCs III.24.(b) and 41., 0310045-003-AC/PSD-FL-265. Since the fuel reclaimers/stackers were installed inside the fuel storage buildings, the Fuel Storage Domes A & B (EU-028h), then any fugitive particulate matter emissions should be included as part of the fuel storage buildings and there should not be any visible emissions standards applicable except for the ones applicable to the fuel storage buildings; therefore, the fuel reclaimers/stackers have been included with the emissions unit identified as EU-028h as "Fuel Storage Domes A & B (includes fuel reclaimers/stackers)". In addition, EU-028, identified as "Conveyors", has been changed to "Belt Conveyor No. 1". Therefore, the following are changed:

Mr. James M. Chansler JEA: Northside Generating Station and St. Johns River Power Park 0310045-012-AC/PSD-FL-010E/PSD-FL-265B Page 3 of 12

FROM:

a. SC III.24.(b):

- 24. <u>Standards</u>. The materials processing sources at NGS shall be regulated as follows, and the emission limits and standards shall apply upon completion of the initial compliance tests for each of the units or activities.
 - (b) The following materials handling sources shall use wet suppression, water spray, coverings, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 5 percent opacity:
 - (1) Transfer towers (EU-028c, EU-028g, EU-028i, EU-028o and EU-028q)
 - (2) Coal, coal coated with latex and petroleum coke storage building (EU-028h)
 - (3) Stacker/reclaimers (EU-028)
 - (4) Limestone lowering well (EU-028d)
 - (5) Conveyors (EU-028)

b. SC III.41.:

41. <u>Materials Handling Operations</u>: Visible emissions shall be conducted on the material handling operations to determine compliance with their applicable limits, as follows:

determine compilance with their applicable mints, as to	110 110.			
Emissions Units at NGS	EPA Method(s)	LARGEST A. ACTUMENTAL SECTION OF THE SECOND SECTION OF THE SECOND SECTION OF THE SECOND SECTION OF THE SECOND SECO	Frequency	Material
Shiphold (EU-028a)	9	30 min	I only	C or PC
Ship Unloader & Spillage Conveyors (EU-028a)	9	3 hr	I only	C & LS
Conveyors (EU-028)	9	3 hr	I only	C & LS
Transfer Towers (EU-028c, -028g, -028i, -028q)	9	3 hr	I only	C & LS
Fuel Storage Building (EU-028h)	9	30 min	I only	C or PC
Fuel Storage Pile - Stacking & Reclaiming (EU-028)	9	30 min	I only	C or PC

TO:

a. SC III.24.(b):

- 24. <u>Standards</u>. The materials processing sources at NGS shall be regulated as follows, and the emission limits and standards shall apply upon completion of the initial compliance tests for each of the units or activities.
 - (b) The following materials handling sources shall use wet suppression, water spray, coverings, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 5 percent opacity:
 - (1) Transfer towers (EU-028c, EU-028g, EU-028i, EU-028o and EU-028q)
 - (2) Coal, coal coated with latex and petroleum coke storage building (EU-028h)
 - (3) Limestone lowering well (EU-028d)
 - (4) Belt Conveyor No. 1 (EU-028)

[0310045-003-AC/PSD-FL-265; and, 0310045-012-AC/PSD-FL-265B]

Mr. James M. Chansler

JEA: Northside Generating Station and St. Johns River Power Park

0310045-012-AC/PSD-FL-010E/PSD-FL-265B

Page 4 of 12

b. SC III.41.:

41. <u>Materials Handling Operations</u>: Visible emissions shall be conducted on the material handling operations to determine compliance with their applicable limits, as follows:

	••			
Emissions Units at NGS	EPA Method(s)	Duration of VE Test		Material
Shiphold (EU-028a)	9	30 min	I only	C or PC
Ship Unloader & Spillage Conveyors (EU-028a)	9	3 hr	I only	C & LS
Belt Conveyor No.1 (EU-028)	9	3 hr	I only	C & LS
Transfer Towers (EU-028c, -028g, -028i, -028q)	9	3 hr	I only	C & LS
Fuel Storage Building (EU-028h)	9	30 min	I only	. C or PC

[0310045-003-AC/PSD-FL-265; 0310045-007-AC/PSD-FL-265A; 0310045-012-AC/PSD-FL-265B; 40 CFR 60.11(b); and, 40 CFR 60, Appendix A]

3. SCs III.24.(a), (c), (d) & (f), and 41., 0310045-003-AC/PSD-FL-265. The permittee has requested that several emissions units identified in the PSD permit be changed to a different name, with no change in limits or compliance requirements (EU-029 thru EU-053); and, the permittee asked that emissions units EU-032 and EU-039 be deleted from the permit's text, for they were never constructed. The requests are acceptable and the following are changed:

FROM:

- a. SC III.24.(a), (b), (c), (d) & (f):
- 24. <u>Standards</u>. The materials processing sources at NGS shall be regulated as follows, and the emission limits and standards shall apply upon completion of the initial compliance tests for each of the 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 (EU-029)

Boiler fuel silos (EU-031)

Limestone receiving bins (EU-032)

Limestone crusher conveyor transfers (EU-034)

Limestone feed silos (EU-035)

Fly ash waste bins (EU-036)

Fly ash transfer and storage systems (EU-037)

Bed ash transfer and storage systems (EU-038)

Pebble lime silo (EU-042)

Fly ash silo pre-mixers (EU-051)

Bed ash silo mixers (EU-052)

Bed ash surge hoppers (EU-053)

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

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:

NGS dock ship unloading operations - ship hold and receiving hoppers (EU-028a)

NGS dock receiving conveyor (EU-028a)

Limestone storage pile (EU-028p)

Limestone reclaim hopper (EU-028p)

Mr. James M. Chansler JEA: Northside Generating Station and St. Johns River Power Park 0310045-012-AC/PSD-FL-010E/PSD-FL-265B Page 5 of 12

- (d) The fly ash and bed ash silo hydrators (EU-039) shall use a venturi scrubber and visible emissions shall not exceed 5 percent opacity).
- (f) The maximum particulate matter emissions from the following operations shall not exceed 0.01 grains per dry standard cubic foot:

Limestone receiving bins (EU-032)

Limestone crusher conveyor transfers (EU-034)

Limestone feed silos (EU-035)

b. <u>SC III.41.</u>:

41. <u>Materials Handling Operations</u>: Visible emissions shall be conducted on the material handling operations to

determine compliance with their applicable limits, as follows:

Emissions Units at NGS	©EPA Method(s)	Duration of VE Test	Frequency	Material
Shiphold (EU-028a)	9	30 min	I only	C or PC
Ship Unloader & Spillage Conveyors (EU-028a)	9	3 hr	I only	C & LS
Belt Conveyor No. 1 (EU-028)	9	3 hr	I only	C & LS
Transfer Towers (EU-028c, -028g, -028i, -028q)	9	3 hr	I only	C & LS
Fuel Storage Building (EU-028h)	9	30 min	I only	C or PC
Limestone Storage Pile (EU-028p)	9	30 min	I only	LS
NSPS - OOO				
Limestone Receiving Bins – Baghouse Exhaust (EU-032)	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 (EU-034)	9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
Limestone Feed Silos - Baghouse Exhaust (EU-035)	9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
Limestone Dryer Building (EU-033)	22	IVE - 75 min	I only	LS
NSPS - Y				
Crusher House - Baghouse Exhaust (EU-029)	9	IVE - 3 hr RVE - 30 min	I & R	С
Boiler Feed Silos - Baghouse Exhaust (EU-031)	9	IVE - 3 hr RVE - 30 min	1 & R	С
Other	•			
Fly Ash Waste Bin - Baghouse Exhaust (EU-036)	9	IVE - 30 min RVE - 30 min	I&R	Ash
Fly Ash Silos - Baghouse Exhaust (EU-037)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Bed Ash Silos - Baghouse Exhaust (EU-038)	9	IVE - 30 min RVE - 30 min	I&R	Ash

Mr. James M. Chansler

JEA: Northside Generating Station and St. Johns River Power Park

0310045-012-AC/PSD-FL-010E/PSD-FL-265B

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Pebble Lime Silo - Baghouse Exhaust (EU-042)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Fly Ash Silo Pre-mixers - Baghouse Exhaust (EU-051)	9	IVE - 60 min RVE - 60 min	1 & R	Ash
Bed Ash Silo Mixers - Baghouse Exhaust (EU-052)	9	IVE - 30 min RVE - 30 min	1 & R	Ash
Bed Ash Surge Hoppers - Baghouse Exhaust (EU-053)	9	IVE - 60 min RVE - 60 min	1 & 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

Note: No methods other than the ones identified above may be used for compliance testing unless prior DEP or RESD approval is received in writing.

[0310045-003-AC/PSD-FL-265; 0310045-007-AC/PSD-FL-265A; 0310045-012-AC/PSD-FL-265B; 40 CFR 60.11(b); and, 40 CFR 60, Appendix A]

TO:

a. SC III.24.(a), (c), (d) & (f):

- 24. <u>Standards</u>. The materials processing sources at NGS shall be regulated as follows, and the emission limits and standards shall apply upon completion of the initial compliance tests for each of the 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 building baghouse exhaust (EU-029)

Fuel silos dust collectors (EU-031)

Limestone prep building dust collectors (EU-034)

Limestone silos bin vent filters (EU-035)

Fly ash transport blower discharge (EU-036)

Fly ash silos bin vents (EU-037)

Bed ash silos bin vents (EU-038)

AQCS pebble lime silo (EU-042)

Fly ash slurry mix system vents (EU-051)

Bed ash slurry mix system vents (EU-052)

Bed ash surge hopper bin vents (EU-053)

(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, EU28q and EU28v)

Coal and petroleum coke storage building (EU28h)

Stacker/reclaimers (EU28)

Transfer Building 5 and limestone loadout chute (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:

NGS dock vessel unloading operations - vessel hold (EU-028a)

NGS dock vessel unloading operations - vessel unloader & spillage conveyors (EU-028a)

Limestone storage pile (EU-028p)

Limestone reclaim hopper (EU-028p)

(d) Deleted.

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

Limestone prep building dust collectors (EU-034)

Limestone silo bin vent filters (EU-035)

[0310045-003-AC/PSD-FL-265; 0310045-007-AC/PSD-FL-265A; and, 0310045-012-AC/PSD-FL-265B)]

b. SC III.41.:

41. Materials Handling Operations: Visible emissions shall be conducted on the material handling operations to

determine compliance with their applicable limits, as follows:

determine compliance with their applicable limits, as follow Emissions Units at NGS	EPA	Duration of VE	Frequency	Material
	Method(s)			
Vessel Hold (EU-028a)	9	30 min	l only	C or PC
Vessel Unloader & Spillage Conveyors (EU-028a)	9	3 hr	I only	C & LS
Belt Conveyor No. 1 (EU-028)	9	3 hr	I only	C & LS
Transfer Towers (EU-028c, -028g, -028i, -028o, -028q & -028v)	9	3 hr	l only	C & LS
Fuel Storage Building (EU-028h)	9	30 min	I only	C or PC
Limestone Storage Pile (EU-028p)	9	30 min	I only	LS
NSPS - OOO				
Limestone Prep Building Dust Collectors - Baghouse Exhaust (EU-034)	9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
Limestone Silos Bin Vent Filters - Baghouse Exhaust (EU-035)	9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: 1 & R Meth 5: I only	LS
Limestone Dryer/Mill Building (EU-033)	22	IVE - 75 min	l only	LS
NSPS - Y			<u> </u>	
Crusher House Building Baghouse Exhaust (EU-029)	9	IVE - 3 hr RVE - 30 min	I & R	С
Fuel Silos Dust Collectors - Baghouse Exhaust (EU-031)	9	IVE - 3 hr RVE - 30 min	1 & R	С
Other				
Fly Ash Transport Blower Discharge - Baghouse Exhaust (EU-036)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Fly Ash Silos Bin Vents - Baghouse Exhaust (EU-037)	9	IVE - 30 min RVE - 30 min	I&R	Ash
Bed Ash Silos Bin Vents - Baghouse Exhaust (EU-038)	9	IVE - 30 min RVE - 30 min	I&R	Ash
AQCS Pebble Lime Silo - Baghouse Exhaust (EU-042)	9	IVE - 30 min RVE - 30 min	I&R	Ash

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Fly Ash Slurry Mix System Vents - Baghouse Exhaust (EU-051)	9	IVE - 60 min RVE - 60 min	I&R	Ash
Bed Ash Slurry Mix System Vents - Baghouse Exhaust (EU-052)	9	IVE - 30 min RVE - 30 min	I&R	Ash
Bed Ash Surge Hopper Bin Vents - Baghouse Exhaust (EU-053)	9	IVE - 60 min RVE - 60 min	I&R	Ash

C - Coal and/or Coal coated with latex

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

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

LS - Limestone; PC-Petroleum Coke

Note: No methods other than the ones identified above may be used for compliance testing unless prior DEP or RESD approval is received in writing.

[0310045-003-AC/PSD-FL-265; 0310045-007-AC/PSD-FL-265A; 0310045-012-AC/PSD-FL-265B; 40 CFR 60.11(b); and, 40 CFR 60, Appendix A]

4. SCs III.14.(c) and 33.(c), 0310045-003-AC/PSD-FL-265. Since the existing Boiler No. 1 has been retired and removed from service, then any references to this retired boiler and associated text has been deleted because they are obsolete; in addition, references to existing Unit 3 will be changed to existing Boiler No. 3 and references to Units 1 and 2 will be changed to CFB Boilers Nos. 1 and 2 for clarity purposes in these SCs. Therefore, the following has been changed:

FROM:

- a. SC III.14.(c):
- 14.(c). Sulfur Dioxide.
 - 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.
- b. SC III.33.(c):
- 33. Particulate Matter:
 - (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.

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/10³ 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.

TO:

a. SC III.14.(c):

14.(c). Sulfur Dioxide.

c. Deleted.

[Applicant Request; and, 0310045-003-AC/PSD-FL-265]

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b. SC III.33.(c):

33. Particulate Matter:

(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 CFB Boilers Nos. 1 and 2 and existing Boiler No. 3, and the resulting PM emissions summed to obtain a 12-month total for CFB Boilers Nos. 1 and 2 and existing Boiler No. 3.

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/10³ gal) shall be used for fuel oil burned in existing Boiler No. 3. The weight percent sulfur content shall be determined based on an analysis of a representative sample of the fuel oil being consumed. The analysis shall be performed using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition. An "Emissions Factor" of 5 pounds per million cubic feet (lb/MCF) shall be used for natural gas burned in existing Boiler No. 3. For Repowered Units 1 and 2, the "Emissions Factor" shall be based on particulate matter stack test results using EPA Methods 5, 5B, 8, 17, or 29 for the individual units, and shall apply to the quantities of fuel consumed in the individual units during the period immediately following the stack tests for the respective units until subsequent stack tests are completed.
- 5. SCs in 0310045-003-AC/PSD-FL-265. Where the text refers to Units 1 and 2, the text will be changed to CFB Boilers Nos. 1 and 2 in the Title V Air Operation Permit Renewal, where the air construction permit for these emissions unit is being incorporated; and, where the text refers to Units 1 or 2, the text will be changed to CFB Boiler No. 1 or No. 2 in the Title V Air Operation Permit Renewal, where the air construction permit for these emissions unit is being incorporated.
- 6. SC 4. AC16-85951. This AC permit was issued for the NGS Auxiliary Boiler No.1 and included a fuel oil usage cap for NGS Boilers Nos. 1, 2 & 3 and Auxiliary Boiler No. 1. Since the existing NGS Boilers Nos. 1 and 2 and Auxiliary Boiler No. 1 have been retired and no longer in service, then the Department agrees that a fuel oil cap related to these emissions units and the remaining existing NGS Boiler No. 3 is not pertinent and, essentially, obsolete. Some of the original SC was split into two SCs in Section III. Subsection A. 0310045-008-AV, specifically in SCs Nos. A.3.b. and A.41. Therefore, the following have been changed:

FROM:

- a. SC 4.: AC16-85951.
- 4. The boiler shall be operational when at least one of the three larger (+ 2000-E6 Btu/hr) steam generating units has been shut down or is in the start-up mode of operation prior to being put on line. Compliance shall be determined by requiring that when any of boilers NS#1, NS#2, and NS#3 are shut down, that it be recorded in the proposed boiler operating log. When electrical power demand requires all three main units to be on line, the total station residual fuel oil consumption will be recorded for each four hour period whenever the auxiliary steam generator is operating. The total station fuel consumption must not exceed 1,440,000 pounds in any consecutive three (3) hour period. The recorded fuel consumption data will be retained for at least two years.

b. SC A.3.b.: 0310045-008-AV.

A.3. Methods of Operation - Fuels.

b. The total station (NGS Boiler No. 3 residual fuel oil consumption must not exceed 1,440,000 pounds in any consecutive three (3) hour period.

[Rule 62-213.410, F.A.C.; 40 CFR 271.20(e)(3); AO16-194743, AO16-178094 and AO16-207528; AC16-85951 and BACT; and, applicant request dated June 14, 1996]

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c. SC A.41.: 0310045-008-AV.

A.41. When electrical power demand requires all three main NGS boilers to be on line, the total station residual (No. 6) fuel oil consumption shall be recorded for each four-hour period whenever the NGS auxiliary steam generator (boiler) is operating. The recorded fuel consumption data shall be retained for at least five (5) years. [Rule 62-213.440, F.A.C.; and, AC16-85951]

TO:

- a. SC 4.: AC16-85951.
- 4. Deleted.
- b. SC A.3.b.: 0310045-008-AV.
- A.3. Methods of Operation Fuels.
- b. Reserved.

[Rule 62-213.410, F.A.C.; 40 CFR 271.20(e)(3); AO16-194743, AO16-178094 and AO16-207528; AC16-85951 and BACT; applicant request dated June 14, 1996; and, 0310045-012-AC/PSD-FL-265B]

c. SC A.41.: 0310045-008-AV.

A.41. Reserved.

7. Revised Tables 2 and 6. PSD-FL-010 (amendment dated October 28, 1986). This AC/PSD permit change is being made to recognize that an operation, which is identified as #17 in Revised Table 2 and #18 in Revised Table 6, has been removed from service. Therefore, any reference to #17 in Revised Table 2 and #18 in Revised Table 6 will be removed from the Title V permit's text and recognized as changed in the amended federal PSD permit, PSD-FL-010, dated October 28, 1986; and, they are located in Section III. Subsection F. Specific Conditions F.1, F.3., F.4., F.5. and F.10., 0310045-008-AV (last revision), and Conditions. Therefore, the following have been changed:

FROM:

- a. SC F.1. 0310045-008-AV; and, Conditions.
- F.1. Revised Tables 2 and 6, PSD-FL-010, are incorporated by reference (attached) for emissions units 17 thru 18 and 18 thru 19, respectively.

b. SC F.3. 0310045-008-AV.

F.3. <u>Controls</u>. The permittee shall maintain and continue to use the control systems and control techniques established to minimize particulate matter emissions from emissions units 17 and 18 in Revised Table 2, PSD-FL-010.

[Rules 62-4.070 and 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; and, PSD-FL-010]

c. SC F.4. 0310045-008-AV.

F.4. Visible Emissions. Visible emissions shall not exceed the following:

a. Limestone and flyash handling systems
b. Limestone transfer points
c. Limestone silo
d. Limestone unloading (rail dumper)
e. Flyash silos
10% opacity
10% opacity
10% opacity
10% opacity
10% opacity

[PSD-FL-010 and PA 81-13]

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d. SC F.5. 0310045-008-AV.

F.5. Particulate Matter. Particulate matter emissions shall not exceed the following:

a. Limestone silo

0.05 lb/hr

b. Limestone hopper/transfer conveyors

0.65 lb/hr

c. Limestone transfer points

0.4 lb/hr

d. Limestone unloading (rail dumper)

0.1 lb/hr

e. Flyash handling system

0.2 lb/hr

[Rule 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; and, PSD-FL-010 and PA 81-13]

e. SCF.10. 0310045-008-AV.

F.10. <u>Particulate Matter</u>. In accordance with Chapter 62-297, F.A.C., EPA Method 5 shall be used to determine compliance with the particulate matter emission limitations established in Revised Table 6, PSD-FL-010, for emissions units 18 and 19 that exhaust through a stack. If the opacity limits are not met for those emissions units that exhaust through a stack, permit compliance shall be determined on the basis of mass emission rate tests. [Rules 62-4.070 and 62-213.440, F.A.C.; Part V, Rule 2.501, JEPB; and, PSD-FL-010]

TO:

a. SC F.1. 0310045-008-AV.

F.1. Revised Tables 2 and 6, PSD-FL-010, amended October 28, 1986, are incorporated by reference (attached) for emissions unit 18 (Table 2) and emissions unit 19 (Table 6).

[PSD-FL-010; PSD-FL-010, amended 10/28/1986; and, 0310045-012-AC/PSD-FL-010E]

b. SC F.3. 0310045-008-AV.

F.3. <u>Controls</u>. The permittee shall maintain and continue to use the control systems and control techniques established to minimize particulate matter emissions from emissions unit 18 in Revised Table 2, PSD-FL-010, amended October 28, 1986.

[Rules 62-4.070 and 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; PSD-FL-010; PSD-FL-010, amended 10/28/1986; and, 0310045-012-AC/PSD-FL-010E]

c. SC F.4. 0310045-008-AV.

F.4. Visible Emissions. Visible emissions shall not exceed the following:

a. Limestone and flyash handling systems

10% opacity

b. Limestone transfer points

10% opacity

c. Limestone silo

10% opacity

d. Reserved.

e. Flyash silos

10% opacity

[PSD-FL-010 and PA 81-13; and, 0310045-012-AC/PSD-FL-010E]

d. SCF.5. 0310045-008-AV.

F.5. Particulate Matter. Particulate matter emissions shall not exceed the following:

a. Limestone silo

0.05 lb/hr

b. Limestone hopper/transfer conveyors

0.65 lb/hr

c. Limestone transfer points

0.4 lb/hr

d. Reserved.

e. Flyash handling system

0.2 lb/hr

[Rule 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; PSD-FL-010 and PA 81-13; and, 0310045-012-AC/PSD-FL-010E]

Mr. James M. Chansler JEA: Northside Generating Station and St. Johns River Power Park 0310045-012-AC/PSD-FL-010E/PSD-FL-265B Page 12 of 12

e. SC F.10. 0310045-008-AV.

F.10. <u>Particulate Matter</u>. In accordance with Chapter 62-297, F.A.C., EPA Method 5 shall be used to determine compliance with the particulate matter emission limitations established in Revised Table 6, PSD-FL-010, amended October 28, 1986, for emissions unit 19 that exhaust through a stack. If the opacity limits are not met for those emissions units that exhaust through a stack, permit compliance shall be determined on the basis of mass emission rate tests.

[Rules 62-4.070 and 62-213.440, F.A.C.; Part V, Rule 2.501, JEPB; PSD-FL-010; PSD-FL-010, amended October 28, 1986; and, 0310045-012-AC/PSD-FL-010E]

8. <u>SC 31. 0310045-003-AC/PSD-FL-265</u>. Since the SC is silent on the minimum number of data points required to establish a valid 24-hour average using a continuous emissions monitoring system (CEMS) for sulfur dioxide, the following "Permitting Note" has been added for clarity purposes:

{Permitting Note: At least three (3) hours of data are required to establish a 24-hour average for CEMS data.}

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

Executed in Tallahassee, Florida.

Sincerely,

Trina L. Vielhauer Chief Bureau of Air Regulation

TLV/sms/bm

Enclosure

cc: Mr. Bert Gianazza, P.E., JEA, Application Contact Mr. Chris Kirts, NED Mr. Buck Oven, Siting Office

U.S. EPA, Region 4

JEA

Northside Generating Station/St. Johns River Power Park
Facility ID No.: 0310045
Duval County

Title V Air Operation Permit Renewal **DRAFT Permit No.:** 0310045-011-AV

Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114 Fax: 850/922-6979

Compliance Authority:

City of Jacksonville
Regulatory and Environmental Services Department
Air and Water Quality Division
Air Pollution Source Permitting Section
117 West Duval Street, Suite 225
Jacksonville, Florida 32202
Telephone: 904/630-4900

Fax: 904/630-3638

Title V Air Operation Permit Renewal **DRAFT Permit No.:** 0310045-011-AV

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Section

IV. Acid Rain Part 102 - 105

A. Acid Rain, Phase II SO₂ and Phase I/II NO_X

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Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

David B. Struhs Secretary

Permittee:

Jacksonville Electric Authority 21 West Church Street Jacksonville, Florida 32202 **DRAFT Permit No.:** 0310045-011-AV

Facility ID No.: 0310045

SIC No.: 49; 4911

Project: Title V Air Operation Permit Renewal

The subject of this permit is for the renewal of the Title V Air Operation Permit, which includes 1) the incorporation of air construction permits, Nos. 0310045-003-AC/PSD-FL-265 and 0310045-007-AC/PSD-FL-265A, for the Repowering of Boilers Nos. 1 and 2 (natural gas and fuel oil fired) with Circulating Fluidized Bed (CFB) Boilers Nos. 1 and 2 (coal, petroleum coke, natural gas and fuel oil fired) at the NGS; 2) the incorporation of air construction permit, No. 0310045-012-AC/PSD-FL-010E/PSD-FL-265B, to allow the burning of coal coated with latex (used as a dust suppressant during the transporting of the coal from the mine) in NGS's CFB Boilers Nos. 1 and 2; 3) removing some obsolete Specific Conditions due to the retirement of NGS existing Boilers Nos. 1 and 2 and Auxiliary Boiler No. 1; 4) establishing a Compliance Plan for some initial testing of some newly constructed emissions units at NGS during the Repowering of Boilers Nos. 1 and 2; 5) adding some insignificant activities to Appendix I; and, 6) editing some Specific Conditions in the Title V Permit for clarity purposes from the last revision to Title V Permit, No. 0310045-008-AV. This facility is located at 4377 Heckshire Drive, Jacksonville, Duval County; UTM Coordinates: Zone 17, 446.90 km East and 3359.150 km North; Latitude: 30° 21' 52" North and Longitude: 81° 37' 25" West.

This Title V Air Operation Permit Renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.); Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214; the City of Jacksonville Ordinance Code (JOC), Title X, Chapter 376; and, the Jacksonville Environmental Protection Board (JEPB) Rule 2, Parts I thru VII and Parts IX thru XII. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-4, TITLE V CONDITIONS (version dated 02/12/02)
APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)

TABLE 297.310-1, CALIBRATION SCHEDULE (dated 10/07/96)
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AND MONITORING SYSTEMS PERFORMANCE REPORT (40 CFR 60, July 1996)

Operation and Maintenance Plan

Alternate Sampling Procedure: ASP Number 97-B-01

Appendix 40CFR60 Subpart A - General Provisions (dated 07/23/97)

Attachment NGS: CT Heat Input Nominal Values: Heat Load MW vs. Temperature

Attachment SJRPP: Material Handling Transfer Points Attachment SJRPP: Protocol for Startup and Shutdown

Appendix CP-1, Compliance Plan

Appendix CAM: NGS CFB Boilers Nos. 1 & 2 and SJRPP Boilers Nos. 1 & 2

Effective Date: January 1, 2004

Renewal Application Due Date: July 5, 2008

Expiration Date: December 31, 2008

Michael G. Cooke, Director Division of Air Resource Management

MGC/sms/bm

"More Protection, Less Process"

JEA **DRAFT Permit No.:** 0310045-011-AV

Northside Generating Station/St. Johns River Power Park Facility ID No.: 0310045

Page 2

Section I. Facility Information.

Subsection A. Facility Description.

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

This facility consists of 5 boilers, NGS existing Boiler No. 3, which is a pre-NSPS boiler with a nominal rating of 564 MW and fired by natural gas, landfill gas, No. 6 residual fuel oil, and used oil (Boilers Nos. 1 and 2 and Auxiliary Boiler No. 1 have been permanently shutdown); NGS CFB Boilers Nos. 1 and 2, which are two new coal, coal coated with latex, and petroleum coke fired circulating fluidized bed (CFB) boilers; SJRPP Boilers Nos. 1 and 2, which are two fossil fuel-fired steam generators (boilers) fired with pulverized coal, a blend of petroleum coke and coal, new No. 2 distillate fuel oil (startup and low-load operation), and "on-specification" used oil; and, four pre-NSPS distillate fuel oil fired combustion turbines with a nominal rating of 52.5 MWs each, NGS Nos. 3, 4, 5 and 6. Emissions from the NGS Boiler No. 3 are uncontrolled. Emissions from the NGS CTs Nos. 3, 4, 5 and 6, are controlled firing low sulfur fuel oil. Each NGS CFB boiler is equipped with a selective non-catalytic reduction (SNCR) system to reduce NO_x emissions, limestone injection to reduce SO₂ emissions, fabric filter to reduce particulate matter (PM & PM₁₀) emissions, while maximizing combustion efficiency and minimizing NO_x formation to limit CO and VOC emissions. Emissions from the SJRPP Boilers Nos. 1 and 2 are controlled with an electrostatic precipitator, a limestone scrubber, and low-NO_X burners. The SJRPP and NGS facilities also include coal, petroleum coke, limestone and flyash handling activities, of which various control devices, control strategies, and control techniques are required.

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

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

Based on the Title V Air Operation Permit Renewal application received June 20, 2003, this facility is a major source of hazardous air pollutants (HAPs).

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Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
-003	NGS – Boiler No. 3
-006	NGS – Combustion Turbine No. 3
-007	NGS – Combustion Turbine No. 4
-008	NGS – Combustion Turbine No. 5
-009	NGS – Combustion Turbine No. 6
-016	SJRPP – Boiler No. 1
-017	SJRPP – Boiler No. 2
-022	SJRPP – Limestone and Flyash Handling
-023	SJRPP – Coal Storage Yard and Transfer Systems
-024	SJRPP – Cooling Towers (2)
-026	NGS – Circulating Fluidized Bed Boiler No. 2
-027	NGS – Circulating Fluidized Bed Boiler No. 1
-028	NGS: Materials Handling and Storage Operations
-028	Belt Conveyor No. 1
-028a	Vessel Hold, Vessel Unloader and Spillage Conveyor
-028c	Transfer Building 1
-028d	Transfer Building 5 and limestone loadout chute
-028g	Transfer Building 2
-028h	Fuel Storage Domes A & B (includes fuel stackers/reclaimers)
-028i	Transfer Building 3
-028o	Plant Transfer Building
-028p	Limestone Storage Pile and Limestone Reclaim Hoppers
-028q	Transfer Building 4
-028v	Transfer Building 6
-029	NGS: Crusher House Building Baghouse Exhaust
-031	NGS: Fuel Silos Dust Collectors
-033	NGS: Limestone Dryer/Mill Building
-034	NGS: Limestone Prep Building Dust Collectors
-035	NGS: Limestone Silos Bin Vent Filters
-036	NGS: Fly Ash Transport Blower Discharge
-037	NGS: Fly Ash Silos Bin Vents
-038	NGS: Bed Ash Silos Bin Vents
-042	NGS: AQCS Pebble Lime Silo
-051	NGS: Fly Ash Slurry Mix System Vents
-052	NGS: Bed Ash Slurry Mix System Vents
-053	NGS: Bed Ash Surge Hopper Bin Vents

Unregulated Emissions Units and/or Activities

{Permitting Note: For Unregulated Emissions Units and/or Activities, see Appendix U-1 (attached).}

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Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Appendix A-1: Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1: Permit History

Statement of Basis

These documents are on file with the permitting authority:

Initial Title V Permit issued 10/13/1998, and effective 01/01/1999 (0310045-001-AV).

Air Construction (AC) Permit, No. 0310045-003-AC/PSD-FL-265, issued 07/14/1999.

AC Permit, No. 0310045-007-AC/PSD-FL-265A, issued 05/23/2001.

Application for Title V Permit Renewal received 06/20/2003 (0310045-011-AV).

Application for an AC Permit received 08/26/2003 (0310045-012-AC/PSD-FL-265B).

Supplemental information received 09/11/2003.

Mr. Wayne Walker's facsimile with attachments received 09/30/2003.

Affidavit for the publication of the Public Notice received Month Day, 2003.

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Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

- 1. APPENDIX TV-4, TITLE V CONDITIONS, is a part of this permit. {Permitting note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
- 2. Not federally enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Rule 62-296.320(2), F.A.C.; and, Jacksonville Environmental Protection Board (JEPB) Rule 2, Part IX]

- 3. Not federally enforceable. Odor Nuisance. Pursuant to JOC Chapter 376, any facility that causes or contributes to the emission of objectionable odors which results in the City of Jacksonville Regulatory & Environmental Services Department (RESD) receiving and validating complaints from five (5) or more different households within a 90 day period and can be cited for objectionable odors.

 [JOC Chapter 376]
- 4. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. [Rules 62-296.320(4)(b)1. & 4., F.A.C.; and, Part X, Rule 2.1001, JEPB]
- 5. Prevention of Accidental Releases (Section 112(r) of CAA).
- a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office RMP Reporting Center when, and if, such requirement becomes applicable. Any RMPs, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center Post Office Box 3346 Merrifield, VA 22116-3346 Telephone: 703/816-4434

and.

b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C. [40 CFR 68]

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6. <u>Unregulated Emissions Units and/or Activities.</u> Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit. [Rule 62-213.440(1), F.A.C.]

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- 7. <u>Insignificant Emissions Units and/or Activities.</u> Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit. [Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]
- 8. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

{Permitting Note: There are no requirements deemed necessary and ordered by the Department at this time.}

[Rule 62-296.320(1)(a), F.A.C.; and, Part X, Rule 2.1001, JEPB]

9. <u>Unconfined Particulate Emissions</u>. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include: chemical or water application to unpaved roads or unpaved yard areas; paving and maintenance of roads, parking areas and plant grounds; landscaping and planting of vegetation; regular mowing of grass and care of vegetation; limiting access to plant property by unnecessary vehicles; storage of bagged chemical products in weather-tight buildings (except for fertilizer); prompt cleanup of spilled powdered chemical products; confining abrasive blasting where possible; and other techniques, as necessary. Also, for the solid waste disposal area, wetting agents shall be applied.

[Rule 62-296.320(4)(c)2., F.A.C.; PSD-FL-010 and PA 81-13; and, 0310045-003-AC/PSD-FL-265]

- 10. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one. [Rule 62-213.440, F.A.C.]
- 11. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C. [Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-4, TITLE V CONDITIONS)}

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12. The permittee shall submit all compliance related notifications and reports required of this permit to the RESD office at the following address:

> City of Jacksonville Regulatory and Environmental Services Department Air and Water Quality Division Air Pollution Source Permitting Section 117 West Duval Street, Suite 225 Jacksonville, Florida 32202 Telephone: 904/630-3484

Fax: 904/630-3638

13. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

> United States Environmental Protection Agency Region 4 Air, Pesticides & Toxics Management Division Operating Permits Section 61 Forsyth Street Atlanta, Georgia 30303 Telephone: 404/562-9099

Fax: 404/562-9095

14. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]

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Section III. Emissions Units.

Subsection A. This section addresses the following emissions unit.

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

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

{Permitting Note(s): This emissions unit is regulated under Acid Rain, Phase II; Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input; Rule 62-296.702, F.A.C., Fossil Fuel Steam Generators; AC16-85951; and, 0310045-012-AC.}

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

Essential Potential to Emit (PTE) Parameters

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

<u>EU ID No.</u>	MMBtu/hr Heat Input	<u>Fuel Type</u>
NGS Boiler No. 3	5260	Natural Gas
	5260	Landfill Gas
	5033	New No. 6 Fuel Oil
	5033	"On-specification" Used Oil
	5033-5260	Fuel Oil and Natural Gas
	5033-5260	Fuel Oil and Natural/Landfill Gases

Note: When a blend of fuel oil and natural and/or landfill gas is fired, the heat input is prorated based on the percent heat input of each fuel.

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

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.; and, AO16-194743, AO16-178094 and AO16-207528]

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A.2. <u>Emissions Unit Operating Rate Limitation After Testing</u>. See specific conditions A.26. and A.27. [Rule 62-297.310(2), F.A.C.]

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A.3. Methods of Operation – Fuels.

a. The only fuels allowed to be burned are natural gas, LP gas, landfill gas, new No. 6 fuel oil, "on-specification" used oil, and a blend of fuel oil and natural gas and/or landfill gas. "On-specification" used oil containing any quantifiable levels of PCBs can only be fired when the emissions unit is at normal operating temperatures. LP gas is used as the igniter fuel when natural gas is not available. b. Reserved.

[Rule 62-213.410, F.A.C.; 40 CFR 271.20(e)(3); AO16-194743, AO16-178094 and AO16-207528; AC16-85951 and BACT; applicant request dated June 14, 1996; and, 0310045-012-AC]

A.4. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.; and, AO16-194743, AO16-178094 and AO16-207528]

Emission Limitations and Standards

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions Nos. A.5., A.7. thru A.10., and A.12, are based on the specified averaging time of the applicable test method.}

A.5. <u>Visible Emissions</u>. For Boiler No. 3, visible emissions shall not exceed 40 percent opacity. Emissions units governed by this visible emissions limit shall compliance test for visible emissions annually and as otherwise required by Chapter 62-297, F.A.C. [Rules 62-296.405(1)(a) and 62-296.702(2)(b), F.A.C.; Part X, Rule 2.1001, JEPB; and, AO16-194743 and AO16-207528]

A.6. Reserved.

A.7. <u>Visible Emissions – Soot Blowing and Load Change</u>. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. [Rule 62-210.700(3), F.A.C.; and, Part III, Rule 2.301, JEPB]

A.8. <u>Particulate Matter</u>. Particulate matter emissions shall not exceed 0.1 pound per million Btu heat input, as measured by applicable compliance methods. See specific condition **A.22**. [Rules 62-296.405(1)(b) and 62-296.702(2)(a), F.A.C.; and, Part X, Rule 2.1001, JEPB]

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A.9. <u>Particulate Matter – Soot Blowing and Load Change</u>. Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [Rule 62-210.700(3), F.A.C.; and, Part III, Rule 2.301, JEPB]

- A.10. <u>Sulfur Dioxide</u>. SO₂ emissions shall not exceed 1.98 pounds per million Btu heat input, as measured by applicable compliance methods. Any calculations or methods used to demonstrate compliance shall be based on the total heat input from all fossil fuels, including natural gas, and the sulfur from all fuels fired. See specific conditions **A.17.**, **A.23.** and **A.24**. [Rules 62-213.440 and 62-296.405(1)(c)1.a., F.A.C.; and, Part X, Rule 2.1001, JEPB]
- A.11. <u>Sulfur Dioxide Sulfur Content</u>. For Boiler No. 3, the sulfur content of the as-fired No. 6 fuel oil shall not exceed 1.8 percent, by weight, if the SO₂ continuous emissions monitor system is temporarily inoperative. See specific conditions **A.17**. and **A.24**. [Rule 62-296.405(1)(e)3., F.A.C.; Part X, Rule 2.1001, JEPB; and, AO16-178094 and AO16-207528]
- A.12. <u>Nitrogen Oxides</u> (expressed as NO₂). For Boiler No. 3, nitrogen oxides shall not exceed 0.30 lb/MMBtu heat input, as measured by applicable compliance methods. See specific condition **A.18**. [Rule 62-296.405(1)(d)1., F.A.C.; Part X, Rule 2.1001, JEPB; and, AO16-207528]
- A.13. "On-Specification" Used Oil. The burning of "on-specification" used oil is allowed at this facility in accordance with all other conditions of this permit and the following additional conditions:

 a. Only "on-specification" used oil generated by the Jacksonville Electric Authority in the production and distribution of electricity shall be fired in these emissions units. The total combined quantity allowed to be fired in these emissions units shall not exceed 1,000,000 gallons per calendar year. "On-specification" used oil is defined as each used oil delivery that meets the 40 CFR 279 (Standards for the Management of Used Oil) specifications listed below. Used oil that does not meet all of the following specifications is considered "off-specification" oil and shall not be fired. See specific conditions A.34., A.38. and A.39.

CONSTITUENT / PROPERTY*

ALLOWABLE LEVEL

Arsenic	5 ppm maximum
	• • • • • • • • • • • • • • • • • • • •
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	100 °F minimum
PCBs	less than 50 ppm

^{*} As determined by approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

[40 CFR 279.11]

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Excess Emissions

A.14. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

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

A.15. Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.

[Rule 62-210.700(2), F.A.C.; and, Part III, Rule 2.301, JEPB]

A.16. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Monitoring of Operations

A.17. Sulfur Dioxide.

- a. For Boiler No. 3, the permittee elected to monitor emissions using a SO_2 continuous emissions monitoring system (CEMS). This procedure is allowed because the emissions units do not have an operating flue gas desulfurization device. See specific conditions **A.10.**, **A.11.**, **A.23.** and **A.24**.
- b. Reserved.
- c. The CEMS shall be calibrated, operated and maintained in accordance with the quality assurance requirements of 40 CFR 75, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and demonstrated based on a 24-hour daily average. A Relative Accuracy Testing Audit (RATA) shall be performed no less than annually.
- d. In the event the CEMS becomes temporarily inoperable or interrupted, the fuels and the maximum fuel oil to natural gas firing ratio that can be used is that which was last used to demonstrate compliance prior to the loss of the CEMS, or the emissions units shall fuel switch and be fired with a fuel oil containing a maximum sulfur content of 1.8%, by weight, or less.
- e. In the event of natural gas disruption and the emissions units have to fire 100% fuel oil, the emissions units shall be fired with a fuel oil containing a maximum sulfur content of 1.8%, by weight, or less. [Rules 62-213.440, 62-204.800, 62-296.405(1)(c)3., and 62-296.405(1)(f)1.b., F.A.C.; and, AO16-194743 and AO16-207528]
- A.18. <u>Nitrogen Oxides</u>. For Boiler No. 3, compliance with the nitrogen oxides (expressed as NO₂) limit of 0.30 lb/MMBtu shall be demonstrated by the following:
- a. Through the use of a CEMS installed, calibrated, operated and maintained in accordance with the quality assurance requirements of 40 CFR 60, Appendix F, and 40 CFR 75, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and demonstrated based on a 30-day rolling average.

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b. The performance specifications, location of the monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 CFR 51, Appendix P, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and 40 CFR 60, Appendix B, adopted by reference in Rule 62-204.800, F.A.C.

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

A.19. Determination of Process Variables.

- (a) <u>Required Equipment</u>. The owner or operator of an emissions unit for which compliance tests are required shall install, 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) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine 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.]

Test Methods and Procedures

A.20. Visible emissions.

- a. For Boiler No. 3, the test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C.
- b. Reserved.
- c. The visible emissions test(s) required shall be conducted simultaneously with particulate matter testing and soot blowing and non-soot blowing operating modes.
- d. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.405(1)(e)1. & 5., F.A.C.; Part X, Rule 2.1001, JEPB; and, AO16-194743, AO16-178094 and AO16-207528]
- A.21. <u>DEP Method 9</u>. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:
- 1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
- 2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute

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average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

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- a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
- b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

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

A.22. Particulate Matter.

- a. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 (with Orsat analysis) or 3A shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17.
- b. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rules 62-213.440, 62-296.405(1)(e)2. & 5., and 62-297.401, F.A.C.; Part X, Rule 2.1001, JEPB and, Part XI, Rule 2.1101, JEPB]
- A.23. <u>Sulfur Dioxide</u>. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards.
- a. For Boiler No. 3, the permittee shall demonstrate compliance with the 1.98 lbs/MMBtu heat input standard by either using the above referenced EPA test methods, including if used during a RATA for the SO₂ CEMS, or, as an alternate sampling procedure authorized by permit, a sulfur analyses of the as-fired fuel oils and gaseous fuels while compliance testing for particulate matter and visible emissions. See specific conditions **A.10.**, **A.11.** and **A.24**.
- b. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

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- c. For monitoring purposes and in lieu of fuel sampling and analysis, the permittee shall operate an SO₂ CEMs. A RATA shall be conducted at least annually in accordance with 40 CFR 75. [Rules 62-213.440, 62-296.405(1)(e)3. & 5., 62-296.405(1)(f)1.b. and 62-297.401, F.A.C.; Part V, Rule 2.501, JEPB; Part X, Rule 2.1001, JEPB; Part XI, Rule 2.1101, JEPB; and, AO16-194743, AO16-178094 and AO16-207528]
- A.24. For Boiler No. 3, the following fuel sampling and analysis protocol shall be used if the permittee opts to demonstrate compliance with the sulfur dioxide standard using an alternate sampling procedure authorized by permit and conducted while performing a compliance test for particulate matter and visible emissions:
- a. Determine and record the as-fired fuel sulfur content, percent by weight, (1) for liquid fuels using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, to analyze a representative sample of the blended fuel oil following each fuel delivery, (2) for gaseous fuels using ASTM D 1072-80, or the latest edition (the permittee can default to the maximum sulfur content guaranteed by the supplier).
- b. Record hourly fuel totalizer readings with calculated hourly feed rates for each fuel fired, the ratio of fuel oil to gas if co-fired, the density of each fuel, and the percent sulfur content, by weight, of each fuel.
- c. The analyses of the No. 6 fuel oil, as received from the supplier, shall include the following:
 - (1). Density (ASTM D 1298-80 or the latest edition).
 - (2). Calorific heat value in Btu per pound (ASTM D 240-76 or the latest edition).
- d. The analyses of the gaseous fuels, as received from the supplier, shall include the following:
 - (1). Density (ASTM D1137-53, ASTM D1945-64, or the latest edition).
 - (2). Calorific heat value in Btu per cubic foot (ASTM D1137-53, ASTM D1945-64, ASTM D1826-77, or the latest edition).
- e. Utilize the above information in a., b., c. and d. to calculate the SO_2 emission rate. [Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.; AO16-194743, AO16-178094 and AO16-207528; and, 40 CFR 60. Appendix A]
- A.25. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.; and, Part XI, Rule 2.1101, JEPB]

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A.26. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rules 62-297.310(2) & (2)(b), F.A.C.; and, Part XI, Rule 2.1101, JEPB]

- A.27. Operating Conditions During Testing Particulate Matter and Visible Emissions. Compliance tests for particulate matter and visible emissions during soot blowing and steady-state (non-soot blowing) operations shall be conducted at least once, annually, if liquid fuel is fired for more than 400 hours. All visible emissions tests shall be conducted concurrently with the particulate matter emissions tests. Testing shall be conducted as follows:
- a. 100% Fuel Oil Firing. Particulate matter and visible emissions tests during soot blowing and steadystate operations shall be performed on each emissions unit while firing fuel oil containing a sulfur content equal to or less than 1.8%, by weight, except that such test shall not be required to be performed during any federal fiscal year that testing is performed in accordance with specific condition A.27.b. b. Co-firing Fuel Oil with Gases. If fuel oil containing a sulfur content greater than 1.8%, by weight, is co-fired with gases (i.e., natural gas, landfill gas, LP gas), then particulate matter and visible emissions tests during soot blowing and steady-state operations shall be performed as soon as practicable, but in no event more than 60 days from the day of first firing the higher percent sulfur fuel oil, while co-firing such fuel oil with the proportion of gas required to maintain SO₂ emissions between 90 to 100% of the SO₂ emissions limitation (1.62 to 1.98 lbs/MMBtu heat input, respectively). Following successful completion of such particulate matter and visible emissions testing, further particulate matter and visible emissions testing shall not be required during the remaining federal fiscal year unless fuel oil is fired containing a sulfur content greater than 0.20%, by weight, above the fuel oil sulfur content percent, by weight, that was fired during the most recent co-firing compliance tests. If fuel oil is co-fired containing a sulfur content greater than 0.20%, by weight, above the fuel oil sulfur content percent, by weight, that was fired during the most recent co-firing compliance tests for particulate matter and visible emissions, then additional particulate matter and visible emissions tests shall be performed as described above and as soon as practicable, but in no event more than 60 days from the day of first firing the higher sulfur percent fuel oil. Following successful completion of such particulate matter and visible emissions testing, further particulate matter and visible emissions testing shall not be required during the remaining federal fiscal year unless fuel oil is fired containing a sulfur content greater than 0.20%, by weight, above the fuel oil sulfur content percent, by weight, that was fired during the most recent co-firing compliance tests. If any additional particulate matter and visible emissions tests are imposed after completion of any required annual compliance tests, then the frequency testing base date shall be reset to 12-months after the date of completion of the last tests.

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

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A.28. <u>Calculation of Emission Rate</u>. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.; and, Part XI, Rule 2.1101, JEPB]

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A.29. Applicable Test Procedures.

- (a) Required Sampling Time.
 - 1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
 - 2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
 - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) <u>Required Flow Rate Range</u>. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) <u>Calibration of Sampling Equipment</u>. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).
- (e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.; and, Part XI, Rule 2.1101, JEPB]
- A.30. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit, and Part XI, Rule 2.1101, JEPB.

[Rule 62-297.310(6), F.A.C.; and, Part XI, Rule 2.1101, JEPB]

- A.31. <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
- (a) General Compliance Testing.
 - 2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.

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- 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - a. Did not operate; or
 - b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
- 4. During each federal fiscal year (October 1 September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - a. Visible emissions, if there is an applicable standard;
 - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
 - c. Each NESHAP pollutant, if there is an applicable emission standard.
- 5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid fuel, other than during startup, for a total of more than 400 hours.
- 9. The owner or operator shall notify the RESD, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) <u>Special Compliance Tests</u>. When the RESD, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the RESD.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; Part XI, Rule 2.1101, JEPB; AO16-194743, AO16-178094 and AO16-207528; and, SIP approved]

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A.32. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

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

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

- A.33. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:
- a. only gaseous fuel(s); or
- b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year.

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

A.34. Compliance with the "on-specification" used oil requirements will be determined from a sample collected from each batch delivered for firing. See specific conditions A.13., A.38. and A.39. [Rules 62-4.070 and 62-213.440; and, 40 CFR 279]

Recordkeeping and Reporting Requirements

A.35. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the RESD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the RESD.

[Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]

A.36. For each calendar quarter, submit to the RESD a written report of emissions in excess of emission limiting standards, as set forth in Rule 62-296.405(1), F.A.C., and any continuous emissions monitoring system outages. The nature and cause of the excess emissions shall be explained. The report shall be submitted within 30 calendar days following the last day of the quarterly period. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years.

[Rules 62-213.440 and 62-296.405(1)(g), F.A.C.; Part X, Rule 2.1001, JEPB; and, AO16-207528]

A.37. Test Reports.

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

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- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the RESD to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
 - 1. The type, location, and designation of the emissions unit tested.
 - 2. The facility at which the emissions unit is located.
 - 3. The owner or operator of the emissions unit.
 - 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 - 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 - 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 - 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 - 8. The date, starting time and duration of each sampling run.
 - 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 - 10. The number of points sampled and configuration and location of the sampling plane.
 - 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 - 12. The type, manufacturer and configuration of the sampling equipment used.
 - 13. Data related to the required calibration of the test equipment.
 - 14. Data on the identification, processing and weights of all filters used.
 - 15. Data on the types and amounts of any chemical solutions used.
 - 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 - 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 - 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
 - 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
 - 20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
 - 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.; Part XI, Rule 2.1101, JEPB; and, AO16-214193, AO16-214194 and AO16-214195]

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A.38. Records shall be kept of each delivery of "on-specification" used oil with a statement of the origin of the used oil and the quantity delivered/stored for firing. In addition, monthly records shall be kept of the quantity of "on-specification" used oil fired in these emissions units. The above records shall be maintained in a form suitable for inspection, retained for a minimum of five years, and be made available upon request. See specific conditions A.13., A.34. and A.39.

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[Rule 62-213.440(1)(b)2.b., F.A.C.; and, 40 CFR 279.61 and 761.20(e)]

A.39. The permittee shall include in the "Annual Operating Report for Air Pollutant Emitting Facility" a summary of the "on-specification" used oil analyses for the calendar year and a statement of the total quantity of "on-specification" used oil fired in Boiler No. 3 during the calendar year. See specific conditions A.13., A.34. and A.38. [Rule 62-213.440(1)(b)2.b., F.A.C.]

A.40. When the NGS boiler No. 3 is shut down, it shall be recorded in the boiler's operating log book. [Rule 62-213.440, F.A.C.; and, AC16-85951]

A.41. Reserved. [0310045-012-AC]

A.42. <u>Fuel Consumption Records</u>. The owner or operator shall create and maintain for each emissions unit hourly records of the amount of each fuel fired, the ratio of fuel oil to gas if co-fired, and the heating value and sulfur content, percent by weight, of each fuel fired. These records must be of sufficient detail to be able to identify when additional particulate matter and visible emissions testing is required pursuant to specific condition **A.27.b.**, and, when applicable, demonstrate compliance with the requirements of specific condition **A.24.e.**

[Rules 62-4.070(3), 62-213.410, 62-213.440 and 62-296.405(1)(c)3., F.A.C.]

Miscellaneous

A.43. For Boiler No. 3, an Operation and Maintenance Plan is attached and a part of this permit pursuant to Rule 62-296.700(6), F.A.C. All activities shall be performed as scheduled and recorded data made available to the RESD upon request. Records shall be maintained on file for a minimum of five (5) years. [Rule 62-296.700(6), F.A.C.; and, Part X, Rule 2.1001, JEPB]

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Section III. Emissions Units.

Subsection B. Reserved.

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Section III. Emissions Unit(s) and Conditions.

Subsection C. This section addresses the following emissions units.

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

Emissions units numbers 003, 004, 005 and 006 are combustion turbines (CTs) manufactured by General Electric (Model MS 7000) and are designated as CTs No. 3, No. 4, No. 5 and No. 6, respectively. Each CT has a maximum heat input from new No. 2 distillate fuel oil of 901.0 MMBtu (LHV: lower heating value). The No. 2 fuel oil has a maximum sulfur content of 0.5%, by weight. These CTs are used as peaking units during peak demand times, during emergencies, and during controls testing, to run a nominal 56.2 MW generator (each). Emissions from the CTs are uncontrolled. Direct water spray fogger devices were installed in the inlet ducts of each CT to provide adiabatic inlet air cooling that increases turbine output and decreases heat rate. A group of exhaust stacks serve the CTs. CT No. 3 began commercial service in February 1975, No. 4 in January 1975, No. 5 in February 1974, and, No. 6 in December 1974.

{Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. These emissions units are <u>not</u> subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines.}

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

Essential Potential to Emit (PTE) Parameters

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

<u>EU ID No.</u>	MMBtu/hr Heat Input	<u>Fuel Type</u>
3	901.0 (LHV)	New No. 2 Fuel Oil
4	901.0 (LHV)	New No. 2 Fuel Oil
5	901.0 (LHV)	New No. 2 Fuel Oil
6	901.0 (LHV)	New No. 2 Fuel Oil

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

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AO16-173886]

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- C.2. <u>Emissions Unit Operating Rate Limitation After Testing</u>. See specific condition **C.13**. [Rule 62-297.310(2), F.A.C.]
- C.3. <u>Methods of Operation Fuels</u>. Only new No. 2 distillate fuel oil shall be fired in the combustion turbines.

[Rule 62-213.410(1), F.A.C.; and, AO16-173886]

- C.4. Hours of Operation.
- a. These CTs may operate continuously, i.e., 8,760 hours/year.
- b. Each CT shall not exceed 399 hrs/yr operation while using foggers. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; AO16-173886; and, 0310045-006-AC]

Emission Limitations and Standards

{Permitting Note: Unless otherwise specified, the averaging time for Specific Condition No. C.5. is based on the specified averaging time of the applicable test method.}

C.5. <u>Visible Emissions</u>. Visible emissions from each combustion turbine shall not be equal to or greater than 20 percent opacity.

[Rule 62-296.320(4)(b)1., F.A.C.; and, AO16-173886]

C.6. <u>Sulfur Dioxide – Sulfur Content</u>. The sulfur content of the new No. 2 distillate fuel oil shall not exceed 0.5 percent, by weight. See specific conditions **C.9.** and **C.12**. [Requested in initial Title V permit application dated June 14, 1996; and, AO16-173886]

Excess Emissions

- C.7. Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]
- C.8. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Monitoring of Operations

C.9. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis for each fuel delivery. See specific conditions C.6. and C.12. [Rule 62-213.440, F.A.C.]

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C.10. <u>Determination of Process Variables</u>.

- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, 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) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine 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.; and, Part XI, Rule 2.1101, JEPB]

Test Methods and Procedures

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

C.11. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.

[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.; and, Part XI, Rule 2.1101, JEPB]

C.12. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition.

[Rules 62-213.440 and 62-297.440, F.A.C.; and, Part XI, Rule 2.1101, JEPB]

C.13. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

{Permitting note: Attached (see "Attachment NGS: CT Heat Input Nominal Values") is a chart of the "Base Load MW" vs. "Temperature" to aid in defining "full load" for visible emissions testing purposes, since the manufacturer's curves are not available. The heat input numbers are only nominal values.}

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

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C.14. Applicable Test Procedures.

- (a) Required Sampling Time.
 - 2. Opacity Compliance Tests. When EPA Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
 - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4)(a)2.c., F.A.C.; and, Part XI, Rule 2.1101, JEPB]

- C.15. <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
- (a) General Compliance Testing.
 - 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - a. Did not operate; or
 - b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
 - 4. During each federal fiscal year (October 1 September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - a. Visible emissions, if there is an applicable standard;
 - 8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
 - 9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) <u>Special Compliance Tests</u>. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

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C.16. <u>Visible Emissions Testing – Biennial</u>. By this permit, biennial (odd years) emissions compliance testing for visible emissions is required for each emissions unit, but is not required for those emissions units burning No. 2 fuel oil for less than 400 hours during the previous even year or the current odd year in question.

[Rules 62-297.310(7)(a)4. & 8., F.A.C.; Part XI, Rule 2.1101, JEPB; and, AO16-173880]

Recordkeeping and Reporting Requirements

C.17. <u>Malfunction Reporting</u>. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the RESD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the RESD.

[Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]

C.18. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the RESD on the results of each such test.
- (b) The required test report shall be filed with the RESD as soon as practical but no later than 45 days after the last sampling run of each test is completed. [Rule 62-297.310(8), F.A.C.; and, Part XI, Rule 2.1101, JEPB]
- C.19. Records of No. 2 fuel oil consumption shall be maintained and made available to RESD upon request.

[Rule 62-213.440, F.A.C.; and, AO16-173886]

C.20. <u>Foggers</u>. A log book shall be maintained to show when each CT is using a fogger device and shall provide the beginning and ending times (hour and minute) of its use. See Specific Condition **C.4.b.**

[Rule 62-4.070(3), F.A.C.]

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Section III. Emissions Unit(s) and Conditions.

Subsection D. This section addresses the following emissions units.

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

SJRPP Boilers Nos. 1 and 2 are fossil fuel-fired steam generators, each having a nominal nameplate rating of 679.6 megawatts (electric). The emissions units are allowed to fire pulverized coal, a blend of petroleum coke and coal, new No. 2 distillate fuel oil (startup and low-load operation), and "on-specification" used oil. The maximum heat input to each emissions unit is 6,144 million Btu per hour. SJRPP Boilers Nos. 1 and 2 are dry bottom wall-fired boilers and will use an electrostatic precipitator (ESP) to control particulate matter, a wet limestone flue gas desulfurization (FGD) unit to control sulfur dioxide, low NO_X burners and low excess-air firing to control nitrogen oxides, and good combustion to control carbon monoxide. Each boiler exhausts through its own stack (640 feet above grade). SJRPP Boiler No. 1 began commercial operation in December 1986. SJRPP Boiler No. 2 began commercial operation in March 1988.

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

The following specific conditions apply to the emissions unit(s) listed above:

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

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity. The maximum operation heat input rate is as follows:

Emissions Unit No.	MMBtu/hr Heat Input
-016	6,144
-017	6,144

{Permitting Note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110

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percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; PSD-FL-010; Part III, Rule 2.301, JEPB; and, PA 81-13]

D.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition **D.46**. [Rule 62-297.310(2), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

D.3. Methods of Operation.

- a. The only fuels allowed to be fired are coal, a coal blend with a maximum of 20 percent petroleum coke (by weight), new No. 2 distillate fuel oil, and "on-specification" used oil.
- b. The new No. 2 fuel oil shall be used for startup and low load operation.
- c. The maximum weight of petroleum coke burned shall not exceed 100,000 pounds per hour.
- d. "On-specification" used oil will be generally fired as a blend with the No. 2 fuel oil. "On-specification" used oil containing PCBs above the detectable level of 2 ppm shall not be used for startup or shutdown. "On-specification" used oil containing PCBs between 2 and 49 ppm can only be fired when the emissions unit is at normal operating temperatures.
- e. Either coal, a blend of coal and petroleum coke, or fuel oil shall not be fired in the emissions units unless both electrostatic precipitator and limestone scrubber are operating properly except as provided under 40 CFR 60, Subpart Da.
- f. No fraction of the flue gas shall be allowed to bypass the limestone flue gas desulfurization (FGD) system to reheat the gasses exiting from the FGD system, if the bypass will cause overall SO₂ removal efficiency less than 90 percent <u>or</u> as otherwise provided in 40 CFR 60, Subpart Da. The percentage and amount of flue gas bypassing the FGD system shall be documented.
- g. The permittee shall not operate its Southside, Northside, or Kennedy Generating Station in such a manner as to cause violation of ambient air quality standards for SO₂ when SJRPP is operating.

[Rule 62-213.410, F.A.C.; PSD-FL-010; PA 81-13; PSD-FL-010(A & B); 40 CFR 761.20(e); and, requested by the applicant in the initial Title V permit application received June 14, 1996]

D.4. <u>Hours of Operation</u>. These emissions units are allowed to operate continuously, i.e., 8,760 hours/year.

[Rule 62-210.200(PTE), F.A.C.; Part III, Rule 2.301, JEPB; PSD-FL-010; and, PA 81-13]

Emission Limitations and Standards

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions Nos. D.5., D.6., D.9. thru D.12., and D.14 thru D.16., are based on the specified averaging time of the applicable test method.}

D.5. Revised Table 6, PSD-FL-010, is incorporated by reference (attached) for emissions units 1 and 2 (EU-016 and EU-017, respectively).

[PSD-FL-010, amendment dated October 28, 1986; and, 0310045-012-AC/PSD-FL-010E]

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D.6. <u>Particulate Matter</u>. No owner or operator shall cause to be discharged into the atmosphere from any emissions unit any gases which contain particulate matter in excess of:

- (1) 0.03 lb/million Btu heat input derived from the combustion of solid or liquid fuels (coal, a blend of coal and petroleum coke, or fuel oil);
- (2) 1 percent of the potential combustion concentration (99 percent reduction) when combusting solid fuel (coal or a blend of coal and petroleum coke), and
- (3) 30 percent of potential combustion concentration (70 percent reduction) when combusting liquid fuel.
- (4) Particulate matter emissions shall be controlled with an electrostatic precipitator. [40 CFR 60.42a(a)(1), (2) & (3); PSD-FL-010 and BACT; PA 81-13; and, PSD-FL-010(A & B)]

D.7. Ash Content.

- a. The maximum ash content of the coal is 18%, by weight.
- b. The maximum ash content of the No. 2 fuel oil is 0.01%, by weight. [PSD-FL-010; and, PA 81-13]
- D.8. <u>Visible Emissions</u>. No owner or operator subject to the provisions of 40 CFR 60, Subpart Da, shall cause to be discharged into the atmosphere from any affected facility any gases which exhibit greater than 20 percent opacity (6 minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

 [40 CFR 60.42a(b); and, PA 81-13]
- D.9. <u>Sulfur Dioxide Coal Only</u>. No owner or operator subject to the provisions of 40 CFR 60, Subpart Da, shall cause to be discharged into the atmosphere from any affected facility which combusts solid fuel or solid-derived fuel any gases which contain sulfur dioxide in excess of:
- (1) 1.20 lb/million Btu heat input, maximum two-hour average, and 0.76 lb/MMBtu heat input (90% reduction of the potential combustion concentration), 30-day rolling average; or
- (2) 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than 0.60 lb/million Btu heat input.
- (3) 100 percent of the potential combustion concentration (zero percent reduction), when emissions are less than 0.20 lb/million Btu heat input.
- (4) SO₂ emissions shall be controlled with a lime/limestone flue gas desulfurization system on each boiler.

[40 CFR 60.43a(a)(1), (2) & (3); PSD-FL-010 and BACT; and, PA 81-13]

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D.10. Sulfur Dioxide - Coal and Petroleum Coke Blends.

- a. When coals with a sulfur content less than or equal to 2.00%, by weight, are co-fired with petroleum coke, the SO_2 emissions shall not exceed 0.55 lb/MMBtu heat input and a minimum of 76% reduction shall be achieved in the flue gas desulfurization system.
- b. When coals with a sulfur content between 2.00% and 3.63%, by weight, are co-fired with petroleum coke, the SO_2 emissions shall not exceed the following formula:

$$SO_2$$
 (lb/MMBtu) = (0.2 x C/100) + 0.4

where: C = percent of coal co-fired on a heat input basis.

Please note: C is on a heat input basis and not on a weight input basis, so appropriate conversions should be used.

c. When coals with a sulfur content greater than 3.63%, by weight, are co-fired with petroleum coke, the SO₂ emissions shall not exceed the following formula:

$$SO_2$$
 (lb/MMBtu) = $(0.1653 \times C \times S - 0.4 \times C + 40) \times 1/100$

where: C = percent of coal co-fired on a heat input basis; and, S = weight percent sulfur in coal.

- d. The maximum SO_2 emissions rate when co-firing petroleum coke and coal shall not exceed 0.676 lb/MMBtu heat input.
- e. Compliance with the SO₂ emissions limit shall be based on a 30-day rolling average for those days when petroleum coke is fired. Any use of petroleum coke during a 24-hour period shall be considered 1 day of the 30-day rolling average. The 30-day rolling average shall be calculated according to the Standards of Performance for New Stationary Sources (NSPS) codified in 40 CFR 60, Subpart Da, except as noted above. [PSD-FL-010(A & B)]
- D.11. <u>Sulfur Dioxide Liquid Fuel Only</u>. No owner or operator subject to the provisions of 40 CFR 60, Subpart Da, shall cause to be discharged into the atmosphere from any affected facility which combusts liquid fuel any gases which contain sulfur dioxide in excess of:
- (1) 340 ng/J (0.80 lb/million Btu) heat input and 90 percent reduction, or
- (2) 100 percent of the potential combustion concentration (zero percent reduction), when emissions are less than 86 ng/J (0.20 lb/million Btu) heat input. [40 CFR 60.43a(b)(1) & (2)]
- D.12. <u>Sulfur Dioxide</u>. Compliance with the emission limitation and percent reduction requirements are both determined on a 30-day rolling average basis. [40 CFR 60.43a(g); PSD-FL-010; and, PA 81-13]

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D.13. Sulfur Dioxide - Sulfur Content.

- a. The maximum coal sulfur content shall not exceed 4.0 percent, by weight.
- b. The maximum sulfur content of the coal petroleum coke blend shall not exceed 4.0 percent, by weight.
- c. The maximum sulfur content of the No. 2 fuel oil is 0.76%, by weight. [PSD-FL-010; PA 81-13; and, PSD-FL-010(A & B)]
- D.14. <u>Sulfur Dioxide</u>. When fuel oil and coal (or a blend of coal and petroleum coke) are combusted simultaneously, the applicable standard is determined by proration using the following formulas:
- (1) If emissions of SO₂ to the atmosphere are greater than 260 ng/J (0.60 lb/MMBtu) heat input:

$$PS_{SO2} = (340X + 520Y)/100$$
 and $%P_S = 10$

(2) If emissions of SO₂ to the atmosphere are equal to or less than 260 ng/J (0.60 lb/MMBtu) heat input:

$$PS_{SO2} = (340X + 520Y)/100$$
 and
% $P_S = (10X + 30Y)/100$

where:

 PS_{SO2} = the prorated standard for sulfur dioxide when combusting fuel oil and coal (or a blend of coal and petroleum coke) simultaneously (ng/J heat input).

 $%P_S$ = percentage of potential SO_2 emissions allowed.

X = the percentage of total heat input derived from the combustion of fuel oil (excluding solid-derived fuels).

Y = the percentage of total heat input derived from the combustion of coal or a blend of coal and petroleum coke (including solid-derived fuels).

[40 CFR 60.43a(h)(1) & (2)]

- D.15. Nitrogen Oxides. No owner or operator subject to the provisions of 40 CFR 60, Subpart Da, shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides in excess of the following emission limits, based on a 30-day rolling average.
- (1) NO_x emissions limits.
 - a. Coal or coal-petroleum coke blend: 0.60 lb/million Btu (260 ng/J) heat input;
 - b. Fuel oil: 130 ng/J (0.30 lb/million Btu) heat input.
- (2) NO_X reduction requirement.
 - a. Solid fuels: 65 percent reduction of potential combustion concentration;
 - b. Liquid fuels: 30 percent reduction of potential combustion concentration.

[40 CFR 60.44a(a)(1) & (2)]

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D.16. <u>Nitrogen Oxides.</u> When fuel oil and coal (or a blend of coal and petroleum coke) are combusted simultaneously, the applicable standard is determined by proration using the following formula:

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

where:

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

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

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

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

- D.17. "On-Specification" Used Oil. The burning of "on-specification" used oil is allowed at this facility in accordance with all other conditions of this permit and the following additional conditions:
- a. Only "on-specification" used oil generated by the Jacksonville Electric Authority in the production and distribution of electricity shall be fired in these emissions units. The total combined quantity allowed to be fired in these emissions units shall not exceed 1,000,000 gallons per calendar year. "On-specification" used oil is defined as each used oil delivery that meets the 40 CFR 279 (Standards for the Management of Used Oil) specifications listed below. Used oil that does not meet all of the following specifications is considered "off-specification" oil and shall not be fired. See specific conditions **D.44.**, **D.63.**, **D.64.** and **D.66**.

CONSTITUENT / PROPERTY *	<u>ALLOWABLE LEVEL</u>
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	100 °F minimum
PCBs	less than 50 ppm

^{*} As determined by approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).
[40 CFR 279.11]

Excess Emissions

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

D.18. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in

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any 24 hour period unless specifically authorized by the Department for longer duration. See Attachment SJRPP: Protocol for Startup and Shutdown. [Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]

{Permitting note: Once a written agreement between JEA and RESD has been acquired approving a "Protocol for Startup and Shutdown", the protocol is automatically incorporated by reference and is a part of the permit. The protocol shall be used where applicable and where there is/are conflict with the rule.}

D.19. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Monitoring of Operations

D.20. <u>Determination of Process Variables</u>.

- (a) <u>Required Equipment</u>. The owner or operator of an emissions unit for which compliance tests are required shall install, 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) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine 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.; and, Part XI, Rule 2.1001, JEPB]

Compliance Provisions

- D.21. Compliance with the particulate matter emission limitation under 40 CFR 60.42a(a)(1) constitutes compliance with the percent reduction requirements for particulate matter under 40 CFR 60.42a(a)(2) and (3).

 [40 CFR 60.46a(a)]
- D.22. Compliance with the nitrogen oxides emission limitation under 40 CFR 60.44a(a)(1) constitutes compliance with the percent reduction requirements under 40 CFR 60.44a(a)(2). [40 CFR 60.46a(b)]
- D.23. The particulate matter emission standards under 40 CFR 60.42a and the nitrogen oxide standards under 40 CFR 60.44a apply at all times except during periods of startup, shutdown, or malfunction. The sulfur dioxide emission standards under 40 CFR 60.43a apply at all times except during periods of startup, shutdown, or when both emergency conditions exist and the procedures under 40 CFR 60.46a(d) are implemented. [40 CFR 60.46a(c)]

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- D.24. During emergency conditions in the principle company, an affected facility with a malfunctioning flue gas desulfurization system may be operated if sulfur dioxide emissions are minimized by:
- (1) Operating all operable flue gas desulfurization modules, and bringing back into operation any malfunctioned module as soon as repairs are completed,
- (2) Bypassing flue gases around only those flue gas desulfurization system modules that have been taken out of operation because they were incapable of any sulfur dioxide emission reduction or which would have suffered significant physical damage if they had remained in operation.

 [40 CFR 60.46a(d)(1) & (2)]
- D.25. Compliance with the sulfur dioxide emission limitations and the percentage reduction requirements under 40 CFR 60.43a and the nitrogen oxides emissions limitations under 40 CFR 60.44a is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day and a new 30 day average emission rate for both sulfur dioxide and nitrogen oxides and a new percent reduction for sulfur dioxide are calculated to show compliance with the standards.

 [40 CFR 60.46a(e)]
- D.26. Compliance is determined by calculating the arithmetic average of all hourly emission rates for SO_2 and NO_X for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction (NO_X only), or emergency conditions (SO_2 only). Compliance with the percentage reduction requirement for SO_2 is determined based on the average inlet and average outlet SO_2 emissions rates for the 30 successive boiler operating days. [40 CFR 60.46a(g)]
- D.27. If the owner or operator has not obtained the minimum quantity of emission data as required under 40 CFR 60.47a, compliance of the affected facility with the emission requirements under 40 CFR 60.43a and 60.44a for the day on which the 30-day period ends may be determined by the Administrator following the applicable procedures in section 7 of Method 19.

[40 CFR 60.46a(h)]

Continuous Monitoring Requirements

D.28. Opacity. The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the opacity of emissions discharges to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Administrator).

[40 CFR 60.47a(a)]

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D.29. <u>Sulfur Dioxide</u>. The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring sulfur dioxide emissions as follows:

(1) Sulfur dioxide emissions are monitored at both the inlet and outlet of the sulfur dioxide control device.

[40 CFR 60.47a(b)(1)]

- D.30. <u>Nitrogen Oxides</u>. The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere.

 [40 CFR 60.47a(c)]
- D.31. The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the oxygen or carbon dioxide content of the flue gases at each location where sulfur dioxide or nitrogen oxides emissions are monitored.

 [40 CFR 60.47a(d)]
- D.32. The continuous monitoring systems are operated and data recorded during all periods of operation at the affected facility including periods of startup, shutdown, malfunction, or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.

 [40 CFR 60.47a(e)]
- D.33. The owner or operator shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with a continuous monitoring system, the owner or operator shall supplement emission data with other monitoring systems approved by the Administrator or the reference methods and procedures as described in 40 CFR 60.47a(h).

 [40 CFR 60.47a(f)]
- D.34. The 1-hour averages required under 40 CFR 60.13(h) are expressed in ng/J (lb/million Btu) heat input and used to calculate the average emission rates under 40 CFR 60.46a. The 1-hour averages are calculated using the data points required under 40 CFR 60.13(b). At least two data points must be used to calculate the 1-hour averages.

 [40 CFR 60.47a(g)]
- D.35. When it becomes necessary to supplement continuous monitoring system data to meet the minimum data requirements in 40 CFR 60.47a(f), the owner or operator shall use the reference methods and procedures as specified in this paragraph. Acceptable alternative methods are given in 40 CFR 60.47a(j).
- (1) Method 6 shall be used to determine the SO_2 concentration at the same location as the SO_2 monitor. Samples shall be taken at 60-minute intervals. The sampling time and sample volume for each sample shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Each sample represents a 1-hour average.

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- (2) Method 7 shall be used to determine the NO_X concentration at the same location as the NO_X monitor. Samples shall be taken at 30-minute intervals. The arithmetic average of two consecutive samples represents a 1-hour average.
- (3) The emission rate correction factor, integrated bag sampling and analysis procedure of Method 3B shall be used to determine the O₂ or CO₂ concentration at the same location as the O₂ or CO₂ monitor. Samples shall be taken for at least 30 minutes in each hour. Each sample represents a 1-hour average.
- (4) The procedures in Method 19 shall be used to compute each 1-hour average concentration in ng/J (lb/million Btu) heat input.

[40 CFR 60.47a(h)(1), (2), (3) & (4)]

- D.36. The owner or operator shall use methods and procedures in this paragraph to conduct monitoring system performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d). Acceptable alternative methods and procedures are given in 40 CFR 60.47a(j).
- (1) Methods 6, 7, and 3B, as applicable, shall be used to determine O_2 , SO_2 , and NO_X concentrations.
- (2) SO_2 or NO_X (NO), as applicable, shall be used for preparing the calibration gas mixtures (in N_2 , as applicable) under Performance Specification 2 of appendix B of 40 CFR 60.
- (3) For affected facilities burning only fossil fuel, the span value for a continuous monitoring system for measuring opacity is between 60 and 80 percent and for a continuous monitoring system measuring nitrogen oxides firing solid fuel is 1,000 ppm.
- (5) For affected facilities burning fossil fuel, alone or in combination with non-fossil fuel, the span value of the sulfur dioxide continuous monitoring system at the inlet to sulfur dioxide control device is 125 percent of the maximum estimated hourly potential emissions of the fuel fired, and the outlet of the sulfur dioxide control device is 50 percent of maximum estimated hourly potential emissions of the fuel fired.

[40 CFR 60.47a(i)(1), (2), (3), & (5)]

- D.37. The owner or operator may use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.47a.
- (1) For Method 6, Method 6A or 6B (whenever Methods 6 and 3 or 3B data are used) or 6C may be used. Each Method 6B sample obtained over 24 hours represents 24 1-hour averages. If Method 6A or 6B is used under 40 CFR 60.47a(i), the conditions under 40 CFR 60.46(d)(1) apply (see specific condition **D.73**.); these conditions do not apply under 40 CFR 60.47a(h).
- (2) For Method 7, Method 7A, 7C, 7D, or 7E may be used. If Method 7C, 7D, or 7E is used, the sampling time is 1 hour.
- (3) For Method 3, Method 3A or 3B may be used if the sampling time is 1 hour.
- (4) For Method 3B, Method 3A may be used.

[40 CFR 60.47a(j)]

Test Methods and Procedures

D.38. In conducting performance tests, the owner or operator shall use as reference methods and procedures the methods in appendix A of 40 CFR 60 or the methods and procedures as specified in 40 CFR 60.48a, except as provided in 40 CFR 60.8(b). 40 CFR 60.8(f) does not apply to this section for SO₂ and NO_x. Acceptable alternative methods are given in 40 CFR 60.48a(e). [40 CFR 60.48a(a)]

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- D.39. <u>Particulate Matter</u>. The owner or operator shall determine compliance with the particulate matter standard as follows
- (1) The dry basis F factor (O₂) procedures in Method 19 shall be used to compute the emission rate of particulate matter.
- (2) For the particulate matter concentration, Method 5 shall be used at affected facilities without wet FGD systems and Method 5B shall be used after wet FGD systems.
 - (i) The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of no greater than 160 ± 14 °C (320 \pm 25 °F).
 - (ii) For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O_2 concentration. The O_2 sample shall be obtained simultaneously with, and at the same transverse points as, the particulate run. If the particulate run has more than 12 transverse points, the O_2 transverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O_2 transverse points. If the grab sampling procedure is used, the O_2 concentration for the run shall be the arithmetic mean of all the individual O_2 concentrations at each transverse point.
- (3) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity. [40 CFR 60.48a(b)(1), (2) & (3)]
- D.40. <u>Sulfur Dioxide</u>. The owner or operator shall determine compliance with the sulfur dioxide standards as follows:
- (1) The percent of potential SO_2 emissions (%P_S) to the atmosphere shall be computed using the following equation:

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%P_S = [(100 - %R_F)(100 - %R_S)]/100
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where:

 $%P_S$ = percent of potential SO_2 emissions, percent.

 R_F = percent reduction from fuel pretreatment, percent.

 $%R_S$ = percent reduction by SO_2 control system, percent.

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

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

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- D.41. <u>Nitrogen Oxides</u>. The owner or operator shall determine compliance with the NO_X standard as follows:
- (1) The appropriate procedures in Method 19 shall be used to determine the emission rate of NO_x.
- (2) The continuous monitoring system in 40 CFR 60.47a(c) and (d) shall be used to determine the concentrations of NO_X and CO_2 or O_2 . [40 CFR 60.48a(d)(1) & (2)]
- D.42. The owner or operator may use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.48a:
- (1) For Method 5 or 5B, Method 17 may be used at facilities with or without wet FGD systems if the stack temperature at the sampling location does not exceed the average temperature of 160 °C (320 °F). Procedures 2.1 and 2.3 of Method 5B in 40 CFR 60, Appendix A may be used in Method 17 only if it is used after wet FGD systems. Method 17 shall not be used after wet FGD systems if the effluent is saturated or laden with water droplets.
- (2) The F_C factor (CO₂) procedures in Method 19 may be used to compute the emission rate of particulate matter under the stipulations of 40 CFR 60.46(d)(1). The CO₂ shall be determined in the same manner as the O₂ concentration. [40 CFR 60.48a(e)(1) & (2)]
- D.43. Compliance with the "on-specification" used oil requirements will be determined as follows:
- (a) Analysis of a sample collected from each batch delivered for firing; or,
- (b) The new batch delivery is from a collection site that has an acceptable analysis already on file with the facility and the analytical results are assumed by the facility for the batch.
- (c) For quantification purposes, the highest concentration of each constituent as determined by any analysis is assumed to be the concentration of the constituent of the blended used oil. See specific conditions **D.17.**, **D.64.**, **D.65.** and **D.66**.

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

- D.44. If the permittee wants the CEMs RATA tests for SO_2 and NO_X to be considered as formal compliance tests, then the permittee must satisfy all of the requirements (i.e., prior notification, submittal requirements, etc.) of Rule 62-297.310, F.A.C. [Rules 62-297.310(7) and 62-213.440, F.A.C.]
- D.45. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may

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accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

D.46. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

D.47. <u>Calculation of Emission Rate</u>. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

D.48. Applicable Test Procedures.

- (a) Required Sampling Time.
 - 1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
 - 2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
 - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
 - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
 - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

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(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

- (d) <u>Calibration of Sampling Equipment</u>. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached as part of this permit.
- (e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.; and, Part XI, Rule 2.1001, JEPB]
- D.49. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

- D.50. <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
- (a) General Compliance Testing.
 - 2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.
 - 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - a. Did not operate; or
 - b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
 - 4. During each federal fiscal year (October 1 September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - a. Visible emissions, if there is an applicable standard;
 - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
 - c. Each NESHAP pollutant, if there is an applicable emission standard.

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- 5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
- 9. The owner or operator shall notify the RESD, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) <u>Special Compliance Tests</u>. When the RESD, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the RESD.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.; Part XI, Rule 2.1101, JEPB; PA 81-13; and, SIP approved]
- D.51. Stack tests for particulate matter, nitrogen oxides, sulfur dioxide, and visible emissions shall be performed annually. See specific condition **D.44**. [PA 81-13]

Recordkeeping and Reporting Requirements

- D.52. For sulfur dioxide, nitrogen oxides, and particulate matter emissions, the performance test data from the performance evaluation of the continuous monitors (including the transmissometer) are submitted to the Administrator.

 [40 CFR 60.49a(a)]
- D.53. For sulfur dioxide and nitrogen oxides the following information is reported to the Administrator for each 24-hour period.
- (1) Calendar date.
- (2) The average sulfur dioxide and nitrogen oxides emission rates (ng/J or lb/million Btu) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standards; and, description of corrective actions taken.
- (3) Percent reduction of the potential combustion concentration of sulfur dioxide for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.

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- (4) Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 18 hours of operation of the facility; justification for not obtaining sufficient data; and, description of corrective actions taken.
- (5) Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NO_X only), emergency conditions (SO₂ only), or other reasons, and justification for excluding data other than startup, shutdown, malfunction, or emergency conditions.
- (6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
- (7) Identification of the times when hourly averages have been obtained based on manual sampling methods.
- (8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.
- (9) Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3. [40 CFR 60.49a(b)(1), (2), (3), (4), (5), (6), (7), (8) & (9)]
- D.54. If the required quantity of emission data as required by 40 CFR 60.47a is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of 40 CFR 60.46a(h) is reported to the Administrator for that 30-day period:
- (1) The number of hourly averages available for outlet emission rates (n_o) and inlet emission rates (n_i) as applicable.
- (2) The standard deviation of hourly averages for outlet emission rates (s_0) and inlet emission rates (s_i) as applicable.
- (3) The lower confidence limit for the mean outlet emission rate (E_0^*) and the upper confidence limit for the mean inlet emission rate (E_i^*) as applicable.
- (4) The applicable potential combustion concentration.
- (5) The ratio of the upper confidence limit for the mean outlet emission rate (E_o^*) and the allowable emission rate (E_{std}) as applicable.
- [40 CFR 60.49a(c)(1), (2), (3), (4) & (5)]
- D.55. If any standards under 40 CFR 60.43a are exceeded during emergency conditions because of control system malfunction, the owner or operator of the affected facility shall submit a signed statement:
- (1) Indicating if emergency conditions existed and requirements under 40 CFR 60.46a(d) were met during each period, and
- (2) Listing the following information:
 - (i) Time periods the emergency condition existed;
 - (ii) Electrical output and demand on the owner or operator's electric utility system and the affected facility;
 - (iii) Amount of power purchased from interconnected neighboring utility companies during the emergency period;
 - (iv) Percent reduction in emissions achieved;
 - (v) Atmospheric emission rate (ng/J) of the pollutant discharged; and
 - (vi) Actions taken to correct control system malfunction.

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

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- D.56. If fuel pretreatment credit toward the sulfur dioxide emission standard under 40 CFR 60.43a is claimed, the owner or operator of the affected facility shall submit a signed statement:
- (1) Indicating what percentage cleaning credit was taken for the calendar quarter, and whether the credit was determined in accordance with the provisions of 40 CFR 60.48a and Method 19 (appendix A); and
- (2) Listing the quantity, heat content, and date each pretreated fuel shipment was received during the previous quarter; the name and location of the pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the previous quarter.

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

- D.57. For any periods for which opacity, sulfur dioxide or nitrogen oxides emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and the affected facility during periods of data unavailability are to be compared with operation of the control system and the affected facility before and following the period of data unavailability.

 [40 CFR 60.49a(f)]
- D.58. The owner or operator of the affected facility shall submit a signed statement indicating whether:
- (1) The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified.
- (2) The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.
- (3) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.
- (4) Compliance with the standards has or has not been achieved during the reporting period. [40 CFR 60.49a(g)(1), (2), (3) & (4)]
- D.59. For the purposes of the reports required under 40 CFR 60.7, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under 40 CFR 60.42a(b). Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Administrator each calendar quarter.

[40 CFR 60.49a(h)]

D.60. The owner or operator of an affected facility shall submit the written reports required under 40 CFR 60.49(a) and 40 CFR 60, Subpart A, to the Administrator for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

[40 CFR 60.49a(i)]

D.61. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the RESD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the RESD. [Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]

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D.62. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the RESD on the results of each such test.

- (b) The required test report shall be filed with the RESD as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the RESD to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
 - 1. The type, location, and designation of the emissions unit tested.
 - 2. The facility at which the emissions unit is located.
 - 3. The owner or operator of the emissions unit.
 - 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 - 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 - 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 - 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 - 8. The date, starting time and duration of each sampling run.
 - 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 - 10. The number of points sampled and configuration and location of the sampling plane.
 - 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 - 12. The type, manufacturer and configuration of the sampling equipment used.
 - 13. Data related to the required calibration of the test equipment.
 - 14. Data on the identification, processing and weights of all filters used.
 - 15. Data on the types and amounts of any chemical solutions used.
 - 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 - 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 - 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
 - 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
 - 20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

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21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge. [Rule 62-297.310(8), F.A.C.; Part XI, Rule 2.1101, JEPB]

D.63. Records shall be kept of each delivery of "on-specification" used oil with a statement of the origin of the used oil and the quantity delivered/stored for firing. In addition, monthly records shall be kept of the quantity of "on-specification" used oil fired in these emissions units; or, hourly if fired unblended. The above records shall be maintained in a form suitable for inspection, retained for a minimum of five years, and be made available upon request. See 'specific conditions **D.17.**, **D.44.**, **D.64.** and **D.65.**

[Rule 62-213.440(1)(b)2.b., F.A.C.; Part V, Rule 2.501, JEPB; and, 40 CFR 279.61 and 761.20(e)]

D.64. The permittee shall include in the "Annual Operating Report (AOR) for Air Pollutant Emitting Facility" a summary of the "on-specification" used oil analyses for the calendar year and a statement of the total quantity of "on-specification" used oil fired in Boilers Nos. 1 and 2 and the auxiliary boilers during the calendar year. See specific conditions **D.17., D.44., D.63.** and **D.65**.

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

D.65. <u>Fuel Consumption Records</u>. The owner or operator shall maintain, for each emissions unit, a daily log of the amounts and types of fuels fired and copies of fuel analyses containing information on the sulfur and ash content, percent by weight, and heating values. See specific conditions **D.17.**, **D.44.**, **D.63.** and **D.64**.

[Rule 62-213.440, F.A.C.; Part V, Rule 2.501, JEPB; and, PSD-FL-010 and PA 81-13]

D.66. Reporting and Recordkeeping. Documentation verifying that the coal and petroleum coke fuel blends combusted in Boilers Nos. 1 and 2 have not exceeded the 20 percent maximum petroleum coke by weight limit shall be maintained and made available upon request by the Department or RESD.

[Rule 62-213.440, F.A.C.; and, Part V, Rule 2.501, JEPB]

D.67. <u>Reporting and Recordkeeping</u>. Stack monitoring, fuel usage and fuel analysis data shall be reported to the RESD on a quarterly basis in accordance with 40 CFR 60.7. [PA 81-13]

D.68. Reserved. [0310045-012-AC/PSD-FL-010E]

D.69. Reserved. [0310045-012-AC/PSD-FL-010E]

D.70. Reserved. [0310045-012-AC/PSD-FL-010E]

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Miscellaneous

D.71. <u>Stack Height</u>. The height of each boiler's exhaust stack for SJRPP Boiler No. 1 and No. 2 shall not be less than 640 feet above grade.

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[PSD-FL-010 and PA 81-13]

D.72. The permittee shall comply with the requirements contained in Appendix 40 CFR 60, Subpart A, attached to this permit.

[Rule 62-204.800(7)(d), F.A.C.]

- D.73. The owner or operator may use the following as alternatives to the reference methods and procedures in 40 CFR 60.46 or in other sections as specified:
- (1) The emission rate (E) of particulate matter, SO_2 and NO_X may be determined by using the Fc factor, provided that the following procedure is used (see specific condition **D.42.**):
 - (i) The emission rate (E) shall be computed using the following equation:

$$E = C F_c (100 / \% CO_2)$$

where:

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

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

% CO_2 = carbon dioxide concentration, percent dry basis.

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

- (ii) If and only if the average F_c factor in Method 19 is used to calculate E and either E is from 0.97 to 1.00 of the emission standard or the relative accuracy of a continuous emission monitoring system is from 17 to 20 percent, then three runs of Method 3B shall be used to determine the O_2 and CO_2 concentration according to the procedures in 40 CFR 60.46(b)(2)(ii), (4)(ii), or (5)(ii). Then if F_o (average of three runs), as calculated from the equation in Method 3B, is more than \pm 3 percent than the average F_o value, as determined from the average values of F_d and F_c in Method 19, i.e., F_{oa} =0.209 (F_{da} / F_{ca}), then the following procedure shall be followed:
 - (A) When F_o is less than 0.97 F_{oa} , then E shall be increased by that proportion under 0.97 F_{oa} , e.g., if F_o is 0.95 F_{oa} , E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard.
 - (B) When F_0 is less than 0.97 F_{0a} and when the average difference (\overline{d}) between the continuous monitor minus the reference methods is negative, then E shall be increased by that proportion under 0.97 F_{0a} , e.g., if F_0 is 0.95 F_{0a} , E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.
 - (C) When F_0 is greater than 1.03 F_{0a} and when \overline{d} is positive, then E shall be decreased by that proportion over 1.03 F_{0a} , e.g., if F_0 is 1.05 F_{0a} , E shall be decreased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

[40 CFR 60.46(d)(1)]

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Compliance Assurance Monitoring (CAM) Requirements

D.74. The emissions units are subject to the CAM requirements contained in the attached Appendix CAM: SJRPP Boilers Nos. 1 and 2. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedence of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C.

[40 CFR 64; and, Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

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Section III. Emissions Unit(s) and Conditions.

Subsection E. This section addresses the following emissions unit(s).

E.U. ID No. Brief Description

-023 SJRPP: Coal Storage Yard and Transfer Systems

The coal receiving, storage and transfer systems at the coal storage yard support the operation of the two power boilers. The emissions units/points are as depicted in Table 6 (Revised; and, PSD-FL-010) and the appropriate part of Attachment SJRPP: Material Handling Transfer Points. Particulate matter emissions are controlled using fabric filter systems, water sprays, wetting agents, and full enclosures or partial enclosures, where appropriate.

{Permitting notes: The emissions unit is regulated under NSPS - 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Prevention of Significant Deterioration (PSD): PSD-FL-010, issued 03/12/1982, and amended 10/28/1986; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated May 7, 1981; and, PPSA: PA 81-13 (revised 08/01/95).}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

- E.1. Revised Tables 2 and 6, PSD-FL-010, amended October 28, 1986, are incorporated by reference (attached) for emissions units 1 thru 16 and 4 thru 17, respectively. [PSD-FL-010, amended October 28, 1986]
- E.2. <u>Hours of Operation</u>. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.

[Rule 62-210.200(PTE), F.A.C.; Part III, Rule 2.301, JEPB; and, PSD-FL-010]

E.3. <u>Controls</u>. The permittee shall maintain and continue to use the control systems and control techniques established to minimize particulate matter emissions from emissions units 4 thru 17 in Revised Table 2, PSD-FL-010, amended October 28, 1986.

[Rules 62-4.070 and 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; PSD-FL-010; and, PSD-FL-010, amended October 28, 1986]

Emission Limitations and Standards

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions Nos. E.4. and E.5. are based on the specified averaging time of the applicable test method.}

E.4. <u>Visible Emissions</u>. An owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, visible emissions greater than 10 percent opacity, as

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established in Revised Table 6, PSD-FL-010, amended October 28, 1986. [PSD-FL-010 and BACT; PA 81-13; and, PSD-FL-010, amended October 28, 1986]

E.5. Particulate Matter. Particulate matter emissions shall not exceed the limits established in Revised Table 6, PSD-FL-010, amended October 28, 1986.

[Rules 62-4.070 and 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; and, PSD-FL-010, amended October 28, 1986]

Excess Emissions

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

- E.6. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]
- E.7. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Monitoring of Operations

E.8. Determination of Process Variables.

- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, 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) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine 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.; Part XI, Rule 2.1101, JEPB]

Test Methods and Procedures

E.9. <u>Visible Emissions</u>. EPA Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A. If the opacity limits are not met for those emissions units that exhaust through a stack, permit compliance shall be determined on the basis of mass emission rate tests. See specific condition **E.10**.

[40 CFR 60.252(c); and, PSD-FL-010 and PA 81-13]

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E.10. <u>Particulate Matter</u>. In accordance with Chapter 62-297, F.A.C., EPA Method 5 shall be used to determine compliance with the particulate matter emission limitations established in Revised Table 6, PSD-FL-010, for emissions units 4 thru 17 that exhaust through a stack. If the opacity limits are not met for those emissions units that exhaust through a stack, permit compliance shall be determined on the basis of mass emission rate tests. See specific condition **E.9**

[Rules 62-4.070 and 62-213.440, F.A.C.; Part V, Rule 2.501, JEPB; and, PSD-FL-010, amended October 28, 1986]

E.11. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

{Permitting note: The Revised Table 2 includes a summary of the various emissions points/ activities and their control systems for the Coal Storage Yard and Transfer Systems. The throughput rate amounts displayed represent approximately 74 percent of their maximum potential. Therefore, when any visible emissions test is being conducted, the emissions point/ activity being evaluated should be operating at or near its maximum potential throughput rate.}

[Rules 62-297.310(2) & (2)(b), 62-213.440(1) and 62-4.070(3), F.A.C.; Part XI, Rule 2.1101, JEPB]

E.12. Applicable Test Procedures.

(a) Required Sampling Time.

- 2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
 - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4)(a)2.c., F.A.C.; Part XI, Rule 2.1101, JEPB]

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E.13. <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required. (a) General Compliance Testing.

- 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - a. Did not operate;
- 4. During each federal fiscal year (October 1 September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - a. Visible emissions, if there is an applicable standard;
- 9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) <u>Special Compliance Tests</u>. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) <u>Waiver of Compliance Test Requirements</u>. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.; Part XI, Rule 2.1101, JEPB; and, SIP approved]

Recordkeeping and Reporting Requirements

E.14. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the RESD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the RESD. [Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]

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E.15. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the RESD on the results of each such test.

(b) The required test report shall be filed with the RESD as soon as practical but no later than 45 days after the last sampling run of each test is completed.

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

Miscellaneous Requirements.

E.16. The permittee shall comply with the requirements contained in Appendix 40 CFR 60, Subpart A, attached to this permit.

[Rule 62-204.800(7)(d), F.A.C.]

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Section III. Emissions Units.

Subsection F. This section addresses the following emissions unit.

E.U. ID No. Brief Description

-022 SJRPP: Limestone and Flyash Handling

Fugitive particulate matter emissions will be generated from limestone and flyash handling and storage systems. Except for emissions unit #17, Revised Table 2, and #18, Revised Table 6, which are identified as limestone unloading: rail dumper, has been retired and removed from service, the emissions units/points are as depicted in Tables 2 and 6 (Revised: PSD-FL-010, amendment dated October 28, 1986) and the appropriate part of Attachment SJRPP: Material Handling Transfer Points. Various control strategies that will be used to minimize emissions are enclosures, wet suppression sprays, and control systems like baghouses. Visible emissions limits will be used to indicate compliance, with mass tests as backup requirements where visible emissions limits are violated.

{Permitting Note(s): The emissions units are regulated under Rule 62-212.400(5), PSD NSR Review, which includes BACT (dated 05/07/81; PSD-FL-010, issued March 12, 1982, and amended October 28, 1986); PA 81-13; and, 0310045-012-AC/PSD-FL-010E.}

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

Essential Potential to Emit (PTE) Parameters

- F.1. Revised Tables 2 and 6, PSD-FL-010, amended October 28, 1986, are incorporated by reference (attached) for emissions unit 18 (Table 2) and emissions unit 19 (Table 6). [PSD-FL-010; PSD-FL-010, amended 10/28/1986; and, 0310045-012-AC/PSD-FL-010E]
- F.2. <u>Hours of Operation</u>. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.

[Rule 62-210.200(PTE), F.A.C.; Part III, Rule 2.301, JEPB]

F.3. <u>Controls</u>. The permittee shall maintain and continue to use the control systems and control techniques established to minimize particulate matter emissions from emissions unit 18 in Revised Table 2, PSD-FL-010, amended October 28, 1986.

[Rules 62-4.070 and 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; PSD-FL-010; PSD-FL-010, amended 10/28/1986; and, 0310045-012-AC/PSD-FL-010E]

Emission Limitations and Standards

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions Nos. F.4. and F.5. are based on the specified averaging time of the applicable test method.}

F.4. Visible Emissions. Visible emissions shall not exceed the following:

a. Limestone and flyash handling systems 10% opacity

b. Limestone transfer points 10% opacity

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c. Limestone silo 10% opacity

d. Reserved.

e. Flyash silos 10% opacity

[PSD-FL-010; PSD-FL-010, amended 10/28/1986; and, 0310045-012-AC/PSD-FL-010E]

F.5. Particulate Matter. Particulate matter emissions shall not exceed the following:

a. Limestone silo
b. Limestone hopper/transfer conveyors
c. Limestone transfer points
0.05 lb/hr
0.65 lb/hr
0.4 lb/hr

d. Reserved.

e. Flyash handling system 0.2 lb/hr

[Rule 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; PSD-FL-010; PSD-FL-010, amended 10/28/1986; and, 0310045-012-AC/PSD-FL-010E]

Excess Emissions

F.6. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]

F.7. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Monitoring of Operations

F.8. Determination of Process Variables.

- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, 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) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine 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.; and, Part XI, Rule 2.1101, JEPB]

Test Methods and Procedures

F.9. <u>Visible Emissions</u>. EPA Method 9 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A.

[Rule 62-213.440, F.A.C.; Part V, Rule 2.501, JEPB; and, PSD-FL-010 and PA 81-13]

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F.10. Particulate Matter. In accordance with Chapter 62-297, F.A.C., EPA Method 5 shall be used to determine compliance with the particulate matter emission limitations established in Revised Table 6, PSD-FL-010, amended October 28, 1986, for emissions unit 19 that exhaust through a stack. If the opacity limits are not met for those emissions units that exhaust through a stack, permit compliance shall be determined on the basis of mass emission rate tests. [Rules 62-4.070 and 62-213.440, F.A.C.; Part V, Rule 2.501, JEPB; PSD-FL-010; PSD-FL-010, amended October 28, 1986; and, 0310045-012-AC/PSD-FL-010E]

F.11. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

{Permitting note: The Revised Table 2 includes a summary of the various emissions points/ activities and their control systems for the Limestone and Flyash Handling. The throughput rate amounts displayed represent approximately 74 percent of their maximum potential. Therefore, when any visible emissions test is being conducted, the emissions point/activity being evaluated should be operating at or near its maximum potential throughput rate.}

[Rules 62-297.310(2) & (2)(b), 62-213.440(1) and 62-4.070(3), F.A.C.; Part XI, Rule 2.1101, JEPB; PSD-FL-010; and, PSD-FL-010, amended October 28, 1986]

F.12. Applicable Test Procedures.

- (a) Required Sampling Time.
 - 2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
 - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4)(a)2.c., F.A.C.; and, Part XI, Rule 2.1101, JEPB]

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F.13. <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

- (a) General Compliance Testing.
 - 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - a. Did not operate;
 - 4. During each federal fiscal year (October 1 September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - a. Visible emissions, if there is an applicable standard;
 - 9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) <u>Special Compliance Tests</u>. When the RESD, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.; and, Part XI, Rule 2.1101, JEPB and, SIP approved]

Recordkeeping and Reporting Requirements

F.14. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the RESD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the RESD. [Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]

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F.15. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the RESD on the results of each such test.

(b) The required test report shall be filed with the RESD as soon as practical but no later than 45 days after the last sampling run of each test is completed. [Rule 62-297.310(8), F.A.C.]

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Section III. Emissions Units.

Subsection G. This section addresses the following emissions unit.

E.U. ID No. Brief Description

-024 SJRPP: Cooling Towers (2)

Fugitive particulate matter emissions from the cooling towers will be controlled with drift eliminators. No mass testing requirement will be imposed due to the physical layout.

{Permitting Note: The emissions units were regulated under Rule 62-212.400(5), PSD NSR Review (see PSD-FL-010 issued March 12, 1982, and amended October 28, 1986).}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

- G.1. Revised Tables 2 and 6, PSD-FL-010, amended October 28, 1986, are incorporated by reference (attached) for emissions units 19 and 20, respectively. [PSD-FL-010; and, PSD-FL-010, amended October 28, 1986]
- G.2. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.

[Rule 62-210.200(PTE), F.A.C.; Part III, Rule 2.301, JEPB; PSD-FL-010 and PA 81-13]

G.3. <u>Controls</u>. The permittee shall maintain and continue to use the control systems and control techniques established to minimize particulate matter emissions from emissions unit 19 in Revised Table 2, PSD-FL-010, amended October 28, 1986.

[Rules 62-4 070 and 62-212 400(6)] F. A. C.: Part IV. Rule 2 401. [FPR: PSD-FL-010 and PA 81]

[Rules 62-4.070 and 62-212.400(6), F.A.C.; Part IV, Rule 2.401, JEPB; PSD-FL-010 and PA 81-13; and, PSD-FL-010, amended October 28, 1986]

Emission Limitations and Standards

{Permitting Note: Unless otherwise specified, the averaging time for Specific Condition No. G.4. is based on the specified averaging time of the applicable test method.}

G.4. <u>Particulate Matter</u>. Particulate matter emissions from each cooling tower shall not exceed 67 lbs/hr. No mass testing requirement will be imposed due to the physical layout. [PSD-FL-010 and PA 81-13]

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Section III. Emissions Unit(s) and Conditions.

Subsection H. This section addresses the following emissions units.

E.U. ID No.	Brief Description
-026	NGC Circulating Fluidized Bed Boiler No. 2
-027	NGC Circulating Fluidized Bed Boiler No. 1

These emissions units are two new coal, coal coated with latex, and petroleum coke fired circulating fluidized bed (CFB) boilers. These new boilers are connected to the existing steam turbines of the retired Boilers Nos. 1 and 2 (297.5 MW each) as part of the repowering project authorized under air construction permit, No. 0310045-003-AC/PSD-FL-265. A 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.

Each NGS CFB boiler is equipped with a selective non-catalytic reduction (SNCR) system to reduce NO_x emissions, limestone injection to reduce SO₂ emissions, fabric filter to reduce particulate matter (PM & PM₁₀) emissions, while maximizing combustion efficiency and minimizing NO_x formation to limit CO and VOC emissions.

The design of the CFB boilers allow operation over a large load range even though Repowered Units Nos. 1 and 2 are anticipated to be base loaded units. The CFB boiler vendor (Foster Wheeler USA) has guaranteed emissions down to 50% load and, based upon initial demonstrations, operation at loads as low as 25% may be achievable while still meeting performance and emission requirements.

{Permitting Note(s): The emissions units are regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD; PSD-FL-265; PSD-FL-265(A & B)]; and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination; and, Compliance Assurance Monitoring (CAM), adopted and incorporated in Rule 62-204.800, F.A.C.}

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The following specific conditions apply to the emissions unit(s) listed above:

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

Essential Potential to Emit (PTE) Parameters

H.1. Permitted Capacity. The maximum operation heat input rate is as follows:

Description (EU No.)	MMBtu/hr Heat Input				
CFB Boiler No. 2 (-026)	2,764				
CFB Boiler No. 1 (-027)	2,764				

These rates are included <u>only</u> for purposes of determining capacity during compliance stack tests. Continuous compliance with these rates is not required; and, capacity during compliance testing shall be determined based on fuel flow data and the as-fired heat content of the fuel.

{Permitting Note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability. The permittee and the Department agree that the CEMS used for the federal Acid Rain Program (40 CFR Part 75) conservatively overestimates heat input ratings. The monitoring data for heat input is, therefore, not appropriate for purposes of compliance, including annual compliance certifications.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, 0310045-003-AC/PSD-FL-265]

- H.2. <u>Emissions Unit Operating Rate Limitation After Testing</u>. See Specific Condition **H.42**. [Rule 62-297.310(2), F.A.C.]
- H.3. <u>Methods of Operation</u>. Only coal, coal treated with a latex binder, petroleum coke, No. 2 fuel oil (maximum sulfur content of 0.05 percent, by weight), and natural gas, shall be fired in Units 1 and 2.

[Rule 62-213.410, F.A.C.; 0310045-003-AC/PSD-FL-265; and 0310045-012-AC]

H.4. <u>Hours of Operation</u>. These emissions units are allowed to operate continuously, i.e., 8,760 hours/year.

[Rule 62-210.200(PTE), F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Control Technology

H.5. <u>Sulfur Dioxide Control</u>. Sulfur dioxide (SO₂) 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 to meet limits of 0.2 lb/MMBtu, 24-hr block average, and 0.15 lb/MMBtu, 30-day rolling average. [Applicant Request; and, 0310045-003-AC/PSD-FL-265]

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H.6. Oxides of Nitrogen Control. A selective non-catalytic reduction (SNCR) system designed to meet a limit of 0.09 lb/MMBtu, 30-day rolling average, shall be used for control of oxides of nitrogen (NO_X) emissions.

[Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.7. <u>Particulate Matter Control</u>. Particulate matter (PM and PM₁₀) shall be controlled by the use of high efficiency, add-on air quality control devices (either fabric filters or electrostatic precipitators) that are designed to meet a limit of 0.011 lb/MMBtu. [Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Emission Limitations and Standards

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions Nos. H.8. thru H.18 are based on the specified averaging time of the applicable test method.}

H.8. <u>Best Available Control Technology</u>. The following Table 1 is a summary of the BACT determinations by the Department and other limits requested by the applicant, as noted:

Table 1: H	Emission	Limits	for	CFB	Units	1	and 2

Pollutant	Emission Limits – Per Unit
Visible emissions	10 percent opacity, 6-minute block average
SO ₂ ²	0.2 lb/MMBtu, 24-hour block average 2,3
	0.15 lb/MMBtu, 30-day rolling average ²
NO _x 1	0.09 lb/MMBtu, 30-day rolling average ⁴
PM/PM ₁₀ ¹	0.011 lb/MMBtu, 3-hour average 1
CO 1	350 lbs/hour, 24-hour block average 1,3
VOCs 1	14 lbs/hour, 3-hour average ¹
Pb ²	0.07 lb/hour, 3-hour average ²
$H_2SO_4^2$	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

¹BACT determination.

[Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.9. <u>Visible Emissions</u>. Visible emissions shall not exceed 10 percent opacity, 6-minute block average, excluding periods of startup, shutdown, and malfunction. [Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

²Requested by applicant.

³24-hour block averages are calculated from midnight to midnight.

⁴Equivalent to approximately 0.8-0.9 lb/MWhr (gross energy output).

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H.10. Sulfur Dioxide.

a. Sulfur dioxide (SO₂) emissions from CFB Boilers Nos. 1 and 2 shall not exceed 0.20 lb/MMBtu (24-hour block average) nor 0.15 lb/MMBtu (30-day rolling average).

b. Sulfur dioxide from CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 combined shall not exceed 12,284 tons during any consecutive 12-month period on a rolling basis. 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; and, 0310045-003-AC/PSD-FL-265]

H.11. Oxides of Nitrogen.

- a. Oxides of nitrogen (NO_x) emissions from CFB Boilers Nos. 1 and 2 shall not exceed 0.09 lb/MMBtu on a 30-day rolling average basis.
- b. Oxides of nitrogen emissions from CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 combined shall not exceed 3,600 tons during any consecutive 12-month period on a rolling basis. 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; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.12. Particulate Matter (PM and PM₁₀).

- a. Particulate matter (PM) emissions from CFB Boilers Nos. 1 and 2 shall not exceed 0.011 lb/MMBtu (3-hour average).
- b. Particulate matter-10 microns or smaller (PM10) emissions from CFB Boilers Nos. 1 and 2 shall not exceed 0.011 lb/MMBtu (3-hour average).
- c. Stack emissions of particulate matter (PM) from CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 combined shall not exceed 881 tons during any consecutive 12-month period on a rolling basis. 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; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

- H.13. <u>Carbon Monoxide</u>. Carbon monoxide (CO) emissions shall not exceed 350 lbs/hour, 24-hour block average, nor 1533 tons per year from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]
- H.14. <u>Volatile Organic Compounds</u>. Volatile organic compound (VOC) emissions shall not exceed 14 lbs/hour (3-hour average), nor 61.5 tons per year from either CFB Boiler No. 1 or No. 2.

[Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.15. <u>Lead</u>. Lead (Pb) emissions shall not exceed 0.07 lb/hour (3-hour average), from either CFB Boiler No. 1 or No. 2.

[Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

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H.16. <u>Sulfuric Acid Mist</u>. Sulfuric acid mist (H₂SO₄) emissions shall not exceed 1.1 lbs/hour (3-hour average), from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.17. <u>Hydrogen Fluoride</u>. Hydrogen fluoride (HF) emissions shall not exceed 0.43 lb/hour (3-hour average), from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.18. Mercury. Mercury (Hg) emissions shall not exceed 0.03 lb/hour (6-hour average), from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

- H.19. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- H.20. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
- H.21. <u>Authorized Emissions</u>. 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 CFB Boilers Nos. 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 unless specifically authorized by DEP or RESD for longer duration. The permittee shall submit a written procedure summarizing the current best operational practices to be followed and the anticipated emissions for startup and shutdown conditions within one year after initial startup of CFB Boiler No. 2, and shall update this document every 5 years (at operating permit renewal). The twelve (12) hours duration of excess emissions may be reduced through a permit revision based on the operating experience on CFB Boilers Nos. 1 and 2.

[Rule 62-210.700, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

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Monitoring of Operations

H.22. Determination of Process Variables.

- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, 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) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine 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.]

H.23. At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

Monitoring Requirements

H.24. 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 CFB Boilers Nos. 1 and 2. An emission level above a BACT limit, considering the 6-minute, 24-hour and 30-day rolling average periods, as applicable, shall be reported to 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)).

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Compliance Determination - Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

H.25. Performance Tests

- (a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).
- (b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in 40 CFR 60.8 shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.
- (c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
- (e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
 - (1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
 - (2) Safe sampling platform(s).
 - (3) Safe access to sampling platform(s).
 - (4) Utilities for sampling and testing equipment.
- (f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion

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of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[Rule 62-204.800(7), F.A.C.; and, 40 CFR 60.8(a), (b), (c), (e) and (f)]

H.26. <u>Initial Performance Tests and CEMS Certifications</u>. 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 CFB Boilers Nos. 1 and 2 while firing either coal or petroleum coke as indicated below. Annual compliance tests shall be performed during every federal fiscal year (October 1 – September 30) pursuant to Rule 62-297.340, F.A.C., on CFB Boilers Nos. 1 and 2 while firing either coal or petroleum coke as indicated below. No stack tests are required if continuous emissions monitoring systems are used to demonstrate compliance pending EPA approval, otherwise initial performance tests shall be conducted as described above. Certification tests (or performance evaluations, as applicable) for all Continuous Emissions Monitoring System (CEMS) required by this permit must be completed within 60 days after achieving the maximum production rate at which each unit will be operated but not later than 90 days of initial operation, and prior to the initial stack tests for that unit.

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. [0310045-003-AC/PSD-FL-265]

H.27. <u>Visible Emissions (Opacity)</u>. Compliance with the visible emissions limit in Specific Condition **H.9.** shall be demonstrated with continuous opacity monitors installed, certified, operated, and maintained in accordance with 40 CFR Part 75, based on 6-minute block averages and excluding periods of startup, shutdown, and malfunction.

[0310045-003-AC/PSD-FL-265]

H.28. Sulfur Dioxide.

a. Compliance with sulfur dioxide (SO₂) emissions limits in Specific Condition **H.10.a.** 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. Emissions recorded in parts per million shall be converted to lb/MMBtu using an appropriate F-factor for purposes of determining compliance with the emission limits in Specific Condition **H.10.a**.

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b. Compliance with the annual SO₂ emission limit in Specific Condition **H.10.b.** shall be determined based on SO₂ data from the CEMS's. Emissions during periods of startup, shutdown, and malfunction shall be considered in determining the total annual emissions.

{Permitting Note: At least three (3) hours of data are required to establish a 24-hour average for CEMS data.}

[0310045-003-AC/PSD-FL-265]

H.29. Oxides of Nitrogen.

- a. Compliance with the oxides of nitrogen (NOx) emissions limit in Specific Condition H.11.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 Specific Condition **H.11.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.

 [0310045-003-AC/PSD-FL-265]

H.30. Particulate Matter.

a. Initial compliance tests only shall be performed on CFB Boilers Nos. 1 and 2 using EPA Methods 5, 5B, 8, 17, or 29 to determine compliance with the particulate matter (PM) limits in Specific Condition **H.12.a.** while firing petroleum coke, and an additional initial compliance test shall be performed on CFB Boiler No. 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 100 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 CFB Boilers Nos. 1 and 2 using EPA Methods 201 or 201A, to determine compliance with the particulate matter-10 microns or smaller (PM₁₀) limits in Specific Condition **H.12.b.** while firing petroleum coke, and an additional initial test shall be performed on CFB Boiler No. 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.

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c. Compliance with the annual particulate matter (PM) emissions limit in Specific Condition **H.12.c.** shall be determined using the following formula. This formula shall be used for each fuel consumed by each of CFB Boilers Nos. 1 and 2 and existing Boiler No. 3, and the resulting PM emissions summed to obtain a 12-month total for CFB Boilers Nos. 1 and 2 and existing Boiler No. 3.

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/10³ gal) shall be used for fuel oil burned in existing Boiler No. 3. The weight percent sulfur content shall be determined based on an analysis of a representative sample of the fuel oil being consumed. The analysis shall be performed using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition. An "Emissions Factor" of 5 pounds per million cubic feet (lb/MCF) shall be used for natural gas burned in existing Boiler No. 3. For Repowered Units 1 and 2, the "Emissions Factor" shall be based on particulate matter stack test results using EPA Methods 5, 5B, 8, 17, or 29 for the individual units, and shall apply to the quantities of fuel consumed in the individual units during the period immediately following the stack tests for the respective units until subsequent stack tests are completed.

[0310045-003-AC/PSD-FL-265]

H.31. Carbon Monoxide.

- a. Compliance with the short-term carbon monoxide (CO) limit in Specific Condition **H.13**. 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 Specific Condition **H.13**. 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. [0310045-003-AC/PSD-FL-265]
- H.32. Valid Data. For the continuous monitoring systems required under Specific Conditions H.28.a., H.29.a., and H.31.a., the permittee shall determine compliance based on CEMS data at the end of each operating day (midnight to midnight), new 24-hour block and 30-day average emission rates shall be calculated from the arithmetic average of all valid hourly emission rates during the previous 24-hours or 30 operating days, as appropriate. Valid hourly emission rates shall not include periods of startup, shutdown, or malfunction as defined in Rule 62-210.200, F.A.C., where emissions exceed the standards in Table 1 (See Specific Condition H.8.). These excess emission periods shall be reported as required in Specific Conditions H.48. and H.49. A

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valid hourly emission rate shall be calculated for each hour in which at least two concentrations are obtained at least fifteen (15) minutes apart.

[0310045-003-AC/PSD-FL-265]

H.33. 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 Specific Condition H.14. 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 petroleum coke or coal. Compliance with the CO limits based on CEMS data shall be used as surrogates to indicate compliance with the VOC limits.

[0310045-003-AC/PSD-FL-265]

H.34. <u>Lead</u>. Initial compliance tests <u>only</u> shall be performed on Unit 2 using EPA Method 12 or 29 to determine compliance with the lead emission limit in Specific Condition H.15. while firing coal and while firing petroleum coke.

[0310045-003-AC/PSD-FL-265]

H.35. <u>Sulfuric Acid Mist</u>. Initial compliance tests <u>only</u> shall be performed on Unit 2 using EPA Method 8 to determine compliance with the sulfuric acid mist emission limit in Specific Condition **H.16**. while firing petroleum coke and while firing coal. In addition, compliance with the SO₂ limits based on CEMS data shall be used as a surrogate to indicate compliance with the sulfuric acid mist limit.

[0310045-003-AC/PSD-FL-265]

- H.36. <u>Hydrogen Fluoride</u>. Initial compliance tests <u>only</u> shall be performed on CFB Boiler No. 2 using EPA Method 13A or 13B to determine compliance with the hydrogen fluoride emission limit in Specific Condition **H.17**. while firing coal and while firing petroleum coke. [0310045-003-AC/PSD-FL-265]
- H.37. Mercury. Initial compliance tests only shall be performed on CFB Boiler No. 2 using EPA Methods 29, 101, or 101A to determine compliance with the mercury emission limit in Specific Condition H.18. while firing coal and while firing petroleum coke.

 [0310045-003-AC/PSD-FL-265]
- H.38. <u>Distillate No. 2 Fuel Oil Sulfur Content</u>. Vendor or other fuel sampling and analysis data (using applicable ASTM methods) shall be used to determine that the sulfur content of the No. 2 fuel oil used in CFB Boilers Nos. 1 and 2 does not exceed 0.05%, by weight. See Specific Condition **H.3.**

[Rule 62-210.200, Definitions – PTE, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.39. Compliance with Standards and Maintenance Requirements.

- (a) Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in 40 CFR 60 shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of this part, any alternative

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method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5). For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- (e)(1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in 40 CFR 60.8 unless one of the following conditions apply. If no performance test under 40 CFR 60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under 40 CFR 60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in 40 CFR 60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under 40 CFR 60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Reference Method 9 of Appendix B of 40 CFR 60. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in 40 CFR 60.11(e)(5), the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of 40 CFR 60, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.
 - (2) Except as provided in 40 CFR 60.11(e)(3), the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with 40 CFR 60.11(b), shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under 40 CFR 60.8. The inability of an owner or operator to secure a visible

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emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.

- (3) The owner or operator of an affected facility to which an opacity standard in 40 CFR 60 applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in 40 CFR 60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of 40 CFR 60.7(e)(1) shall apply.
 - (4) The owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by 40 CFR 60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and 40 CFR 60.8 performance test results.
 - (5) The owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 40 CFR 60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c), that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine opacity compliance.
 - (6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by 40 CFR 60.8, the opacity observation results and observer certification required by 40 CFR 60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by 40 CFR 60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with 40 CFR 60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, the shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.

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- (7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.
- (8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the Federal Register.
- (f) Special provisions set forth under an applicable subpart of 40 CFR 60 shall supersede any conflicting provisions of 40 CFR 60.11.
- (g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

 [40 CFR 60.11(a), (b), (c), (d), (e), (f) and (g)]
- H.40. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

 [40 CFR 60.8(c)]
- H.41. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

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H.42. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rule 62-297.310(2), F.A.C.]

H.43. <u>Calculation of Emission Rate</u>. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

H.44. Applicable Test Procedures.

- (a) Required Sampling Time.
 - 2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
 - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4)(a)2.c., F.A.C.]

H.45. <u>Required Stack Sampling Facilities</u>. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.; and, 40 CFR 60.8(e)]

- H.46. <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
- (a) General Compliance Testing.
 - 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - a. Did not operate;

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- 4. During each federal fiscal year (October 1 September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - a. Visible emissions, if there is an applicable standard;
- 9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) Special Compliance Tests. When the RESD, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

{Permitting Note: For all EUs subject to a NSPS pursuant to 40 CFR 60, RESD shall be notified, in writing, at least 30 days prior to the <u>initial</u> compliance test, pursuant to 40 CFR 60.8., or at least 7 days prior notice if a compliance test was postponed due to a delay or otherwise by mutual agreement between the permittee and RESD.]

[Rule 62-297.310(7), F.A.C.; 40 CFR 60.8; 0310045-003-AC/PSD-FL-265; and, SIP approved]

Recordkeeping and Reporting Requirements

H.47. 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.; and, 0310045-003-AC/PSD-FL-265]

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H.48. Pursuant to the Standards of Performance for New Stationary Sources, all excess emissions shall also be reported in accordance with 40 CFR 60.7. Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, and fuel switching shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Condition H.8.

[40 CFR 60.7]

H.49. Notification and Recordkeeping

- (a) The owner or operator subject to the provisions of this part shall furnish the Administrator written notification as follows:
 - (1) A notification of the <u>date construction</u> (or reconstruction as defined under 40 CFR 60.15) of an affected facility is <u>commenced</u> postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
 - (2) A notification of the <u>anticipated date of initial startup</u> of an affected facility postmarked not more than 60 days nor less than 30 days prior to such date.
 - (3) A notification of the <u>actual date of initial startup</u> of an affected facility postmarked within 15 days after such date.
 - (4) A notification of <u>any physical or operational change</u> to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
 - (5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with 40 CFR 60.13(c). Notification shall be postmarked not less than 30 days prior to such date.
 - (6) A notification of the anticipated date for conducting the opacity observations required by 40 CFR 60.11(e)(1) of 40 CFR 60. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
- (b) The owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- (c) The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

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(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- (d) The summary report form shall contain the information and be in the format shown in Figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.
 - (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.
 - (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[See Attached Figure 1-Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance]

- (e) The owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurements, maintenance, reports, and records.
- (f) If notification substantially similar to that in 40 CFR 60.7(a) is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of 40 CFR 60.7(a).
- (g) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

[Rule 62-213.440(1)(b)2.b., F.A.C.; and, 40 CFR 60.7(a)(1) thru (6), (b), (c)(1) thru (4), (d)(1) & (2), (e), (f) and (g)]

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H.50. The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative. The requirements include initiating a recordkeeping system to record the occurrence and duration of any start up, shutdown, load change, fuel switch, high fuel bound nitrogen, and malfunction of a CT, malfunction of the air pollution control equipment, and the periods when the CEMS is inoperable.

[40 CFR 60.7(b)]

H.51. Excess Emissions Report.

- a. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the RESD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the RESD. [Rule 62-210.700(6), F.A.C.]
- b. 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.

 [0310045-003-AC/PSD-FL-265]

H.52. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the RESD on the results of each such test.
- (b) The required test report shall be filed with the RESD as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the RESD to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
 - 1. The type, location, and designation of the emissions unit tested.
 - 2. The facility at which the emissions unit is located.
 - 3. The owner or operator of the emissions unit.
 - 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 - 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 - 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 - 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.

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8. The date, starting time and duration of each sampling run.

- 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
- 10. The number of points sampled and configuration and location of the sampling plane.
- 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
- 12. The type, manufacturer and configuration of the sampling equipment used.
- 13. Data related to the required calibration of the test equipment.
- 14. Data on the identification, processing and weights of all filters used.
- 15. Data on the types and amounts of any chemical solutions used.
- 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
- 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
- 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
- 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
- 20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
- 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

H.53. <u>Records</u>. 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.

[Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.54. Certification Testing of Monitors. As required under the federal Acid Rain Program, the Acid Rain Monitoring Plan for NGS shall be revised to address the new Continuous Emissions Monitoring Systems (CEMS's) for sulfur dioxide, oxides of nitrogen, and visible emissions (opacity) for Repowered NGS Units 1 and 2. The permittee shall provide a copy of this revised plan, as well as model and serial numbers for each of the monitors, to 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.

[0310045-003-AC/PSD-FL-265]

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H.55. Quarterly Compliance Reports for Annual Limits. The permittee shall provide reports quarterly to RESD certifying compliance with the 12-month rolling limits on SO₂, NO_X and PM (TSP) for NGS CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 set forth in Specific Conditions H.10.b., H.11.b., and H.12.c. The reports shall be submitted within 45 days after the last day of each calendar quarter. [0310045-003-AC/PSD-FL-265]

General Operation Requirements

H.56. Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment.

[Rule 62-4.070(3), F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Miscellaneous

- H.57. <u>Circumvention</u>. 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.]
- H.58. Circumvention. No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

 [40 CFR 60.12]

H.59. Modification.

- (a) Except as provided under 40 CFR 60.14(e) and 40 CFR 60.14(f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.
- (b) Emission rate shall be expressed as kg/hr (lbs/hour) of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:
 - (1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors", EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrate that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

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(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in 40 CFR 60.14(b)(1) does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in 40 CFR 60.14(b)(1). When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in 40 CFR 60 appendix C of 40 CFR 60 shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

- (c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.
- (d) [Reserved]
- (e) The following shall not, by themselves, be considered modifications under this part:
 - (1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of 40 CFR 60.14(c) and 40 CFR 60.15.
 - (2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.
 - (3) An increase in the hours of operation.
 - (4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by 40 CFR 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.
 - (5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.
 - (6) The relocation or change in ownership of an existing facility.
- (f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.
- (g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in 40 CFR 60.14(a), compliance with all applicable standards must be achieved.

[40 CFR 60.14(a) thru (g)]

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H.60. Reconstruction.

- (a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.
- (b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:
 - (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
- (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.
- (c) "Fixed capital cost" means the capital needed to provide all the depreciable components.
- (d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:
 - (1) Name and address of the owner or operator.
 - (2) The location of the existing facility.
 - (3) A brief description of the existing facility and the components which are to be replaced.
 - (4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.
 - (5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.
 - (6) The estimated life of the existing facility after the replacements.
 - (7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.
- (e) The Administrator will determine, within 30 days of the receipt of the notice required by 40 CFR 60.15(d) and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.
- (f) The Administrator's determination under 40 CFR 60.15(e) shall be based on:
 - (1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;
 - (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
 - (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
 - (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.
- (g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

[40 CFR 60.15(a) thru (g)]

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Compliance Assurance Monitoring (CAM) Requirements

H.61. The emissions units are subject to the CAM requirements contained in the attached Appendix CAM: NGS CFB Boilers Nos. 1 and 2. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedence of a specific emissions limitation, however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C.

[40 CFR 64; and, Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

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Section III. Emissions Unit(s) and Conditions.

Subsection I. This section addresses the following emissions units.

Brief Description E.U. ID No. NGS: Materials Processing Operations NGS: Materials Handling and Storage Operations -028 Belt Conveyor No.1 -028 Vessel Hold, Vessel Unloader and Spillage Conveyor -028a -028c Transfer Building 1 -028d Transfer Building 5 and limestone loadout chute -028g Transfer Building 2 Fuel Storage Domes A & B (includes fuel stackers/reclaimers) -028h -028i Transfer Building 3 Plant Transfer Building -028o Limestone Storage Pile and Limestone Reclaim Hoppers -028p Transfer Building 4 -028g Transfer Building 6 -028v -029 NGS: Crusher House Building Baghouse Exhaust NGS: Fuel Silos Dust Collectors -031 NGS: Limestone Dryers/Mills Building -033 NGS: Limestone Prep Building Dust Collectors -034 -035 NGS: Limestone Silos Bin Vent Filters NGS: Fly Ash Transport Blower Discharge -036 -037 NGS: Fly Ash Silos Bin Vents -038 NGS: Bed Ash Silos Bin Vents -042 NGS: AOCS Pebble Lime Silo NGS: Fly Ash Slurry Mix System Vents -051 -052 NGS: Bed Ash Slurry Mix System Vents -053 NGS: Bed Ash Surge Hopper Bin Vents

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

{Permitting Note(s): Some of the emissions units are regulated under 40 CFR 60, Subpart A, General Provisions, Subpart Y, Standards of Performance for Coal Preparation Plants (coal handling at NGS, excluding open storage piles), and Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (limestone handling at NGS, except for open storage piles and truck unloading), adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD; PSD-FL-265; 0310045-007-AC/PSD-FL-265A; and, 0310045-012-AC/PSD-FL-265B]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination; and, Rule 62-297.711, F.A.C.,

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Reasonable Available Control Technology - Materials Handling, Sizing, Screening, Crushing and Grinding Operations.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

I.1. Permitted Capacity

a. <u>Throughput Rates</u>. The materials handling and usage rates for coal, coal coated with latex, petroleum coke, and limestone at NGS shall not exceed the following (for NGS CFB Boilers Nos. 1 and 2 combined), assuming a moisture content of 5.5% or less:

Handling/Usage Rate

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MaterialTons Per YearCoal/Coal coated with latex/Petroleum Coke2.42 millionLimestone1.45 million

b. <u>Heat Input Rates</u>. 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 <u>only</u> for purposes of determining capacity during compliance stack tests. Continuous compliance with these rates is not required; capacity during compliance testing shall be determined based on fuel flow data and the as-fired heat content of the fuel.

[Rule 62-210.200(228), F.A.C.; 0310045-003-AC/PSD-FL-265; and, 0310045-012-AC/PSD-FL-265B]

- I.2. <u>Hours of Operation</u>. The Materials Processing Operations are allowed to operate continuously, i.e., 8,760 hours/year.
- I.3. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition I.22. [Rule 62-297.310(2), F.A.C.]

I.4. Method of Operation.

a. Material Processing Operations. The emissions units either process or transfer materials used in the operations of NGS's CFBs Boilers Nos. 1 and 2. The transfer buildings are numbered sequentially as they occur in the process with Transfer Building 1 being the transfer building nearest the vessel unloading operations and Transfer Building 5 being the transfer building immediately upstream of the fuel storage buildings and the limestone storage pile. Transfer Buildings 1 thru 5 are associated with the transfer of raw coal, pet coke and limestone, while Transfer Building 6 is associated with the transfer of raw coal and pet coke and Plant Transfer Building is associated with the transfer of crushed coal and pet coke. Limestone loadout via telescopic chute is included with Transfer Building 5. Except for the Belt Conveyor 1, all conveyors are enclosed.

b. Fuels.

(1) <u>Limestone Dryers (3)(EU -033)</u>. Each limestone dryer is allowed to fire distillate fuel oil and Natural Gas. The distillate fuel oil a maximum sulfur content limit of 0.05%, by weight.

[Rule 62-213.410, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

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Emission Limitations

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions Nos. I.5. and I.6. are based on the specified averaging time of the applicable test method.}

- I.5. <u>Particulate Matter</u>. The maximum particulate matter emissions from the following operations shall not exceed 0.01 grains per dry standard cubic foot:
 - a. Limestone dryers each (3) (EU-033)
 - b. Limestone prep building dust collectors (EU-034)
 - c. Limestone silos bin vent filters (EU-035)

[0310045-003-AC/PSD-FL-265; and, 0310045-012-AC/PSD-FL-265B]

- I.6. <u>Visible Emissions</u>. The materials processing sources at NGS shall be regulated as follows, and the emission limits and standards shall apply upon completion of the initial compliance tests for each of the emissions units or activities.
 - a. The following materials handling sources shall be equipped with fabric filter controls and visible emissions shall not exceed 5 percent opacity:
 - (1) Crusher house building baghouse exhaust (EU-029)
 - (2) Fuel silos dust collectors (EU-031)
 - (3) Limestone dryers each (3) (EU-033)
 - (4) Limestone prep building dust collectors (EU-034)
 - (5) Limestone silos bin vent filters (EU-035)
 - (6) Fly ash transport blower discharge (EU-036)
 - (7) Fly ash silos bin vents (EU-037)
 - (8) Bed ash silos bin vents (EU-038)
 - (9) AQCS pebble lime silo (EU-042)
 - (10) Fly ash slurry mix system vents (EU-051)
 - (11) Bed ash slurry mix system vents (EU-052)
 - (12) Bed ash surge hopper bin vents (EU-053)
 - b. The following materials handling sources shall use wet suppression, water spray, coverings, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 5 percent opacity:
 - (1) Transfer towers (EU-028c, EU-028g, EU-028i, EU-028o, EU-028q and EU-028v)
 - (2) Coal, coal coated with latex and petroleum coke storage building (EU-028h)
 - (3) Transfer Building 5 and limestone loadout chute (EU-028d)
 - (4) Belt Conveyor No. 1 (EU-028)
 - c. The following materials handling sources shall use wet suppression, water spray, partial enclosures, and/or conditioned materials to control particulate emissions as needed, and visible emissions shall not exceed 10 percent opacity:
 - (1) NGS dock vessel unloading operations vessel hold (EU-028a)
 - (2) NGS dock vessel unloading operations vessel unloader and spillage conveyor (EU-028a)
 - (3) Limestone storage pile (EU-028p)
 - (4) Limestone reclaim hopper (EU-028p)

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

[0310045-003-AC/PSD-FL-265; 0310045-007-AC/PSD-FL-265A; and, 0310045-012-AC/PSD-FL-265B)]

I.7. <u>Distillate Fuel Oil Sulfur Content</u>. The maximum sulfur content of the distillate No. 2 fuel oil that is allowed to be fired in each of the three (3) limestone dryers (EU-033) is 0.05%, by weight.

[0310045-003-AC/PSD-FL-265]

Excess Emissions

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

- I.8. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- I.9. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

 [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

- I.10. Determination of Process Variables.
- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, 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) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine 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.]

I.11. For EUs -029, -031, -033, -034 and -035, and at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will

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be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

Compliance Determination - Test Methods and Procedures

- 1.12. Performance Tests (for EUs -029, -031, -033, -034 and -035).
- (a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).
- (b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in 40 CFR 60.8 shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.
- (c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
- (e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
 - (1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and
 - (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
 - (2) Safe sampling platform(s).
 - (3) Safe access to sampling platform(s).
 - (4) Utilities for sampling and testing equipment.
- (f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the

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three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[40 CFR 60.8(a), (b), (c), (e) and (f)]

I.13. <u>Limestone Dryers (3): Distillate No. 2 Fuel Oil - Sulfur Content</u>. Vendor or other fuel sampling and analysis data (using applicable ASTM methods) shall be used to determine that the sulfur content of the No. 2 fuel oil used in the three (3) limestone dryers does not exceed 0.05%, by weight. See Specific Condition I.7.

[Rule 62-210.200, Definitions - PTE, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

- I.14. <u>Limestone Dryers (3) Visible Emissions (EU-033)</u>. Compliance with the visible emissions limit in Specific Condition **I.6.** for the limestone dryers (each) shall be demonstrated using EPA Method 9 initially and once within every five years thereafter. The limestone dryers shall fire fuel oil during the initial compliance tests. In subsequent years, the testing shall be conducted annually if fuel oil has been fired for more than 400 hours during the previous federal fiscal year; otherwise, the testing shall be conducted once within every five years, even if the testing is conducted while firing natural gas.

 [0310045-003-AC/PSD-FL-265]
- I.15. <u>Limestone Dryers (3) Particulate Matter (EU-033)</u>. Initial compliance tests <u>only</u> shall be performed on the limestone dryers (3) to determine compliance with the particulate matter limit in Specific Condition **I.5.b.** using EPA Method 5. [0310045-003-AC/PSD-FL-265]
- I.16. Compliance with Standards and Maintenance Requirements (for EUs -029, -031, -033, -034 and -035):
- (a) Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in 40 CFR 60 shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5). For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

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- (e)(1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in 40 CFR 60.8 unless one of the following conditions apply. If no performance test under 40 CFR 60.8 is required. then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under 40 CFR 60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in 40 CFR 60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under 40 CFR 60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Reference Method 9 of Appendix B of 40 CFR 60. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in 40 CFR 60.11(e)(5), the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of 40 CFR 60, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.
 - (2) Except as provided in 40 CFR 60.11(e)(3), the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with 40 CFR 60.11(b), shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under 40 CFR 60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.
 - (3) The owner or operator of an affected facility to which an opacity standard in 40 CFR 60 applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in 40 CFR 60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of 40 CFR 60.7(e)(1) shall apply.

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(4) The owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by 40 CFR 60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and 40 CFR 60.8 performance test results.

- (5) The owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 40 CFR 60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c), that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine opacity compliance.
- (6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by 40 CFR 60.8, the opacity observation results and observer certification required by 40 CFR 60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by 40 CFR 60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with 40 CFR 60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, the shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.
- (7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

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- (8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the Federal Register.
- (f) Special provisions set forth under an applicable subpart of 40 CFR 60 shall supersede any conflicting provisions of 40 CFR 60.11.
- (g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

 [40 CFR 60.11(a), (b), (c), (d), (e), (f) and (g)]
- I.17. For EUs -029, -031, -033, -034 and -035, performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

 [40 CFR 60.8(c)]
- I.18. <u>Particulate Matter</u>. **Initial** compliance tests <u>only</u> shall be performed on the limestone prep building dust collectors (EU-034) and the limestone silos bin vent filters (EU-035) to determine compliance with their particulate matter limit specified in Specific Condition **I.5.** using EPA Method 5, 40 CFR 60, Appendix A. The minimum sample volume shall be 30 dry standard cubic feet.

[0310045-003-AC/PSD-FL-265; 40 CFR 60, Appendix A; and, Rule 62-297.711(3)(b), F.A.C.]

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I.19. <u>Visible Emissions (VE)</u>. VE tests shall be conducted on the following emissions units to determine compliance with their applicable limits, as follows:

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		Frequency	Material
9	30 min	I only	C or PC
9	3 hr	I only	C & LS
9	3 hr	I only	C & LS
9	3 hr	I only	C & LS
9	30 min	I only	C or PC
9	30 min	I only	LS
9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
22	IVE - 75 min	I only	LS
9	IVE - 3 hr RVE - 30 min	I & R	С
9	IVE - 3 hr RVE - 30 min	I&R	С
		-	
9	IVE - 30 min RVE - 30 min	I & R	Ash
9	IVE - 30 min RVE - 30 min	I & R	Ash
9	IVE - 30 min RVE - 30 min	I & R	Ash
9 .	IVE - 30 min RVE - 30 min	I&R	Ash
9	IVE - 60 min RVE - 60 min	I & R	Ash
9	IVE - 30 min RVE - 30 min	I & R	Ash
9	IVE - 60 min RVE - 60 min	I & R	Ash
	9 9 9 9 9 9 9-VE 5-PM 9-VE 5-PM 22 9 9	## EPA Duration of VE Method(s) Test 9	PA

C - Coal and/or Coal coated with latex

Note: No methods other than the ones identified above may be used for compliance testing unless prior DEP or RESD approval is received in writing.

[0310045-003-AC/PSD-FL-265; 0310045-007-AC/PSD-FL-265A; 0310045-012-AC/PSD-FL-265B; 40 CFR 60.11(b); and, 40 CFR 60, Appendix A]

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

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

LS - Limestone; PC-Petroleum Coke

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I.20. For EUs -029, -031, -033, -034 and -035, the opacity standards shall apply at all times except during startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

[40 CFR 60.11(c)]

I.21. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

- I.22. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
- I.23. <u>Calculation of Emission Rate</u>. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

I.24. Applicable Test Procedures.

- (a) Required Sampling Time.
 - 2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

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c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

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[Rule 62-297.310(4)(a)2.c., F.A.C.]

I.25. <u>Required Stack Sampling Facilities</u>. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.; and, 40 CFR 60.8(e)]

- I.26. <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
- (a) General Compliance Testing.
 - 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - a. Did not operate;
 - 4. During each federal fiscal year (October 1 September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - a. Visible emissions, if there is an applicable standard;
 - 9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) <u>Special Compliance Tests</u>. When the RESD, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) <u>Waiver of Compliance Test Requirements</u>. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis

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for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

{Permitting Note: For all EUs subject to a NSPS pursuant to 40 CFR 60, RESD shall be notified, in writing, at least 30 days prior to the <u>initial</u> compliance test, pursuant to 40 CFR 60.8., or at least 7 days prior notice if a compliance test was postponed due to a delay or otherwise by mutual agreement between the permittee and RESD.]

[Rule 62-297.310(7), F.A.C.; 40 CFR 60.8; 0310045-003-AC/PSD-FL-265; and, SIP approved]

Recordkeeping and Reporting Requirements

I.27. <u>Plant Operation - Problems</u>. 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.; and, 0310045-003-AC/PSD-FL-265]

- I.28. For EUs -029, -031, -033, -034 and -035, and pursuant to the Standards of Performance for New Stationary Sources, all excess emissions shall also be reported in accordance with 40 CFR 60.7. Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, and fuel switching shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Conditions I.5. and I.6. [40 CFR 60.7]
- I.29. Notification and Recordkeeping (for EUs -029, -031, -033, -034 and -035).
- (a) The owner or operator subject to the provisions of this part shall furnish the Administrator written notification as follows:
 - (1) A notification of the <u>date construction</u> (or reconstruction as defined under 40 CFR 60.15) of an affected facility is <u>commenced</u> postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
 - (2) A notification of the <u>anticipated date of initial startup</u> of an affected facility postmarked not more than 60 days nor less than 30 days prior to such date.
 - (3) A notification of the <u>actual date of initial startup</u> of an affected facility postmarked within 15 days after such date.

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(4) A notification of <u>any physical or operational change</u> to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

- (5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with 40 CFR 60.13(c). Notification shall be postmarked not less than 30 days prior to such date.
- (6) A notification of the anticipated date for conducting the opacity observations required by 40 CFR 60.11(e)(1) of 40 CFR 60. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
- (b) The owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- (e) The owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurements, maintenance, reports, and records.
- (f) If notification substantially similar to that in 40 CFR 60.7(a) is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of 40 CFR 60.7(a).
- (g) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

[Rule 62-213.440(1)(b)2.b., F.A.C.; and, 40 CFR 60.7(a)(1) thru (6), (b), (e), (f) and (g)]

- I.30. For EUs -029, -031, -033, -034 and -035, the owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:
- (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

[40 CFR 60.7(a)(4)]

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I.31. For EUs -029, -031, -033, -034 and -035, the owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative. The requirements include initiating a recordkeeping system to record the occurrence and duration of any start up, shutdown, load change, fuel switch, high fuel bound nitrogen, and malfunction of a CT, malfunction of the air pollution control equipment, and the periods when the CEMS is inoperable.

[40 CFR 60.7(b)]

I.32. Excess Emissions Report.

- a. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the RESD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the RESD. [Rule 62-210.700(6), F.A.C.]
- b. 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. For EUs -029, -031, -033, -034 and -035, and pursuant to the Standards of Performance for New Stationary Sources at 40 CFR 60, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A.

[0310045-003-AC/PSD-FL-265]

I.33. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the RESD on the results of each such test.
- (b) The required test report shall be filed with the RESD as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the RESD to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
 - 1. The type, location, and designation of the emissions unit tested.
 - 2. The facility at which the emissions unit is located.
 - 3. The owner or operator of the emissions unit.
 - 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 - 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 - 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.

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- 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
- 8. The date, starting time and duration of each sampling run.
- 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
- 10. The number of points sampled and configuration and location of the sampling plane.
- 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
- 12. The type, manufacturer and configuration of the sampling equipment used.
- 13. Data related to the required calibration of the test equipment.
- 14. Data on the identification, processing and weights of all filters used.
- 15. Data on the types and amounts of any chemical solutions used.
- 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
- 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
- 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
- 19. The detailed calculations for one run that relate the collected data to the calculated emission rate
- 20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
- 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

I.34. <u>Records</u>. 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.

[Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.; and, 0310045-003-AC/PSD-FL-265]

General Operation Requirements

I.35. Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment.

[Rule 62-4.070(3), F.A.C.; and, 0310045-003-AC/PSD-FL-265]

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Miscellaneous

I.36. <u>Circumvention</u>. 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.]

- I.37. <u>Circumvention</u>. For EUs -029, -031, -033, -034 and -035, no owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

 [40 CFR 60.12]
- I.38. Modification (for EUs -029, -031, -033, -034 and -035).
- (a) Except as provided under 40 CFR 60.14(e) and 40 CFR 60.14(f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.
- (b) Emission rate shall be expressed as kg/hr (lbs/hour) of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:
 - (1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors", EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrate that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.
 - (2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in 40 CFR 60.14(b)(1) does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in 40 CFR 60.14(b)(1). When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in 40 CFR 60 appendix C of 40 CFR 60 shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.
- (c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.
- (d) [Reserved]

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(e) The following shall not, by themselves, be considered modifications under this part:

- (1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of 40 CFR 60.14(c) and 40 CFR 60.15.
- (2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.
- (3) An increase in the hours of operation.
- (4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by 40 CFR 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.
- (5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.
- (6) The relocation or change in ownership of an existing facility.
- (f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.
- (g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in 40 CFR 60.14(a), compliance with all applicable standards must be achieved.

[40 CFR 60.14(a) thru (g)]

- I.39. Reconstruction (for EUs -029, -031, -033, -034 and -035).
- (a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.
- (b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:
 - (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
- (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.
- (c) "Fixed capital cost" means the capital needed to provide all the depreciable components.
- (d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:
 - (1) Name and address of the owner or operator.
 - (2) The location of the existing facility.
 - (3) A brief description of the existing facility and the components which are to be replaced.
 - (4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.
 - (5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.

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(6) The estimated life of the existing facility after the replacements.

- (7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.
- (e) The Administrator will determine, within 30 days of the receipt of the notice required by 40 CFR 60.15(d) and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.
- (f) The Administrator's determination under 40 CFR 60.15(e) shall be based on:
 - (1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;
 - (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
 - (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
 - (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.
- (g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

 [40 CFR 60.15(a) thru (g)]

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Section IV. This section is the Acid Rain Part.

Operated by: JEA

ORIS codes: 0667: Northside Generating Station

0207: St. Johns River Power Park

Subsection A. This subsection addresses Acid Rain, Phase II.

The emissions units listed below are regulated under Acid Rain Part, Phase II.

E.U. ID No.	Description
-001	NGS Boiler No. 1 (dismantled)
-002	NGS Boiler No. 2 (dismantled)
-003	NGS Boiler No. 3
-016	SJRPP Boiler No. 1
-017	SJRPP Boiler No. 2

A.1. The Phase II permit application(s) submitted for this facility, as approved by the Department, are a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed below:

a. DEP Form No. 62-210.900(1)(a), effective 06/16/2003, dated 06/17/2003.

[Chapter 62-213 and Rule 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO₂) allowance allocations for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2004	2005	2006	2007	2008
-001 ¹	1A	SO2 allowances, under Table 2 of 40 CFR Part 73	6182 ³				
-002 ¹	2A	SO2 allowances, under Table 2 of 40 CFR Part 73	6251 ³				
-003 ¹	3	SO2 allowances, under Table 2 of 40 CFR Part 73	11061 ³				

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E.U. ID No.	EPA ID	Year	2004	2005	2006	2007	2008
· -016²	1	SO2 allowances, under Table 2 of 40 CFR Part 73	11486³	11486 ³	11486 ³	11486 ³	11486 ³
-017²	2	SO2 allowances, under Table 2 of 40 CFR Part 73	11279³	11279 ³	11279³	11279 ³	11279 ³

Northside Generating Station

- A.3. <u>Emission Allowances</u>. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act
- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
- b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
- c. Allowances shall be accounted for under the Federal Acid Rain Program. [Rule 62-213.440(1)(c), F.A.C.]
- A.4. Comments, notes, and justifications:
- a. For Title IV purposes, Mr. James Chansler is the primary designated representative.
- b. A Certificate of Authorization was signed on June 17, 2003, designating Ms. Susan N. Hughes as an alternate designated representative for the NGS; in addition, a Certificate of Authorization was signed on June 17, 2003, designating Ms. Susan N. Hughes as an alternate designated representative for the SJRPP.
- A.5. <u>Fast-Track Revisions of Acid Rain Parts</u>. Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, F.A.C. [Rules 62-213.413 and 62-214.370(4), F.A.C.]

² St. Johns River Power Park

The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 of 40 CFR 73.

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Subsection B. This subsection addresses Acid Rain, Phase I/II.

{Permitting note: The U.S. EPA issues Acid Rain Phase I permit(s)}

The emissions unit listed below is regulated under Acid Rain Part, Phase I/II, for:

JEA

St. Johns River Power Park Facility ID No.: 0310045 ORIS Code: 0207

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

B.1. The owners and operators of these Phase I/II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the permit(s) listed below:

a. Phase I permit issued 3/27/97.

[Chapter 62-213, F.A.C.]

JEA
Northside Generating Station/St. Johns River Power Park

DRAFT Permit No.: 0310045-011-AV
Facility ID No.: 0310045

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B.2. Nitrogen oxide (NO_X) requirements for each Acid Rain unit are as follows:

E.U. ID		NOx limit ¹	
No.	EPA ID		
-016	1-	Pursuant to 40 CFR 76.8(d)(2), the Florida Department of Environmental Protection approves a NO _X early election compliance plan for unit U1. The compliance plan is effective for calendar year 2000 through calendar year 2007. Under the compliance plan, this unit's annual average NO _X emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation, under "40 CFR 76.5(a)(2) of 0.50 lb/MMBtu" for dry bottom wall-fired boilers. If the unit is in compliance with its applicable emission limitation for each year of the plan, then the unit shall not be subject to the applicable emission limitation, under "40 CFR 76.7(a)(2) of 0.46 lb/MMBtu" for dry bottom wall-fired boilers until calendar year 2008. In addition to the described NO _X compliance plan, this unit shall comply with all other	
		applicable requirements of 40 CFR part 76, including the duty to reapply for a NO _X	
		compliance plan and the requirements covering excess emissions.	
-017	2	Pursuant to 40 CFR 76.8(d)(2), the Florida Department of Environmental Protection approves a NO _X early election compliance plan for unit U2. The compliance plan is effective for calendar year 2000 through calendar year 2007. Under the compliance plan, this unit's annual average NO _X emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation, under "40 CFR 76.5(a)(2) of 0.50 lb/MMBtu" for dry bottom wall-fired boilers. If the unit is in compliance with its applicable emission limitation for each year of the plan, then the unit shall not be subject to the applicable emission limitation, under "40 CFR 76.7(a)(2) of 0.46 lb/MMBtu" for dry bottom wall-fired boilers until calendar year 2008.	
,		In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_X compliance plan and the requirements covering excess emissions.	

Based on the Phase I/II NO_x Compliance Plan dated December 19, 1997.

B.3. Comments, notes, and justifications: none

Appendix H-1: Permit History

Jacksonville Electric Authority Northside Generating Station/St. Johns River Power Park

DRAFT Permit No.: 0310045-011-AV

Facility ID No.: 0310045

-016 S -017 S -022 S	Facility SJRPP Steam Boiler #1 SJRPP Steam Boiler #2 SJRPP: Limestone and Flyash Handling	0310045-001-AV 0310045-002-AV 0310045-011-AV 0310045-011-AV PSD-FL-010/PA 81-13 0310045-011-AV	01/01/1999 01/10/1999 Pending ³ 01/10/1999 Pending ³ 03/12/1982; 10/28/1986	12/31/2003 12/31/2003 12/31/2003	Initial Revision Renewal Revision Renewal
-017 S	SJRPP Steam Boiler #2 SJRPP: Limestone and Flyash Handling	0310045-011-AV 0310045-002-AV 0310045-011-AV PSD-FL-010/PA 81-13	Pending ³ 01/10/1999 Pending ³	12/31/2003	Renewal Revision
-022 S	SJRPP: Limestone and Flyash Handling	0310045-002-AV 0310045-011-AV PSD-FL-010/PA 81-13	01/10/1999 Pending ³		Revision
-022 S	SJRPP: Limestone and Flyash Handling	0310045-011-AV PSD-FL-010/PA 81-13	Pending ³		
		PSD-FL-010/PA 81-13			Renewal
-006 N		0310045-011-AV	03/12/1702, 10/20/1700	Not applicable	Construction; mod.
-006 N			Pending ³		Renewal
-006 N		0310045-012-AC/PSD-FL-010E	Pending ⁴		Construction (mod.)
	NGS CT #3 ²	0310045-004-AC	04/20/2000	10/30/2001	Construction (mod.)
		0310045-005-AC	07/17/2000	07/17/2005	Construction (mod.)
_		0310045-006-AC	04/04/2001	04/04/2006	Construction (mod.)
		0310045-008-AV	04/25/2002	12/31/2003	Revision
		0310045-011-AV	Pending ³		Renewal
-007 N	NGS CT #4	0310045-004-AC	04/20/2000	10/30/2001	Construction (mod.)
_		0310045-005-AC	07/17/2000	07/17/2005	Construction (mod.)
_		0310045-006-AC	04/04/2001	04/04/2006	Construction (mod.)
		0310045-008-AV	04/25/2002	12/31/2003	Revision
	,	0310045-011-AV	Pending ³		Renewal
-008 N	NGS CT #5	0310045-004-AC	04/20/2000	10/30/2001	Construction (mod.)
		0310045-005-AC	07/17/2000	07/17/2005	Construction (mod.)
		0310045-006-AC	04/04/2001	04/04/2006	Construction (mod.)
		0310045-008-AV	04/25/2002	12/31/2003	Revision
		0310045-011-AV	Pending ³		Renewal
-009 N	NGS CT #6	0310045-004-AC	04/20/2000	10/30/2001	Construction (mod.)
		0310045-005-AC	07/17/2000	07/17/2005	Construction (mod.)
		0310045-006-AC	04/04/2001	04/04/2006	Construction (mod.)
		0310045-008-AV	04/25/2002	12/31/2003	Revision
		0310045-011-AV	Pending ³		Renewal
	NGS Circulating Fluidized Bed (CFB) Boiler No. 2	0310045-003-AC	05/25/2001	05/25/2006	Construction (new)
IN IN	NO. 2	0310047-007-AC	04/25/02	12/31/2003	Construction (mod.)
		0310045-011-AV	Pending ³	12,50,2005	Renewal
	-	0310045-012-AC	Pending ⁴		Construction (mod.)

Appendix H: Permit History (cont.)

Jacksonville Electric Authority

Northside Generating Station/St. Johns River Power Park

DRAFT Permit No.: 0310045-011-AV

Facility ID No.: 0310045

Page 2 of 2

-027	NGS CFB Boiler No. 1	0310045-003-AC	05/25/2001	05/25/2006	Construction (new)
		0310047-007-AC	04/25/02	12/31/2003	Construction (mod.)
		0310045-011-AV	Pending ³		Renewal
		0310045-012-AC	Pending ⁴		Construction (mod.)

St. Johns River Power Park (SJRPP).

Northside Generating Station (NGS) Combustion Turbine (CT).

Change to an actual date, which is day 55 from the date of posting the PROPOSED Permit for EPA review (see confirmation e-mail from Tallahassee) or the date that EPA confirms resolvement of any objections.

⁴ Issue Final AC upon completion of Public Notice requirements and any administrative hearing requirements.

Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Jacksonville Electric Authority DRAFT Permit No.: 0310045-011-AV Northside Generating Station/St. Johns River Power Park Facility ID No.: 0310045

<u>Unregulated Emissions Units and/or Activities</u>. 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	Waste Oil Storage - Unit 1	750 gallons
6. JEA Tank	Waste Oil Storage - Unit 2	1,000 gallons
7. JEA Tank	Waste Oil Storage - Unit 3	575 gallons
8. JEA Tank	Bunker C Storage	4,578,000 gallons
9. JEA Tank	Bunker C Storage	4,578,000 gallons
10. JEA Tank	Bunker C Storage	11,256,000 gallons
11. JEA Tank	Bunker C Storage	11,256,000 gallons
12. JEA Tank	Bunker C Storage	11,256,000 gallons
13. JEA Tank #10	Diesel Storage	168,000 gallons
14. JEA Tank #11	Diesel Storage	4,200,000 gallons
II Ct Iohan Direm Dorrem Daule		

II. St. Johns River Power Park.

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

Appendix I-1, List of Insignificant Emissions Units and/or Activities.

Jacksonville Electric Authority

DRAFT Permit No.: 0310045-011-AV

Northside Generating Station/St. Johns River Power Park

Facility ID. No.: 0310045

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62.210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

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:

I. Northside Generating Station.

Α.	Storage Tanks.		
1.	JEA Tank	Magnesium Oxide	9,600 gallons
2.	JEA Tank	Petrolite	6,500 gallons
3.	JEA Tank	Lube Oil - Unit 1	10,000 gallons
4.	JEA Tank	Lube Oil - Unit 2	10,000 gallons
5.	JEA Tank	Mineral Acid	11,500 gallons
6.	JEA Tank	Mineral Acid	11,500 gallons
7.	JEA Tank	Caustic - East	10,000 gallons
8.	JEA Tank	Caustic - West	10,000 gallons
9.	JEA Tank	Hypochlorite	12,000 gallons
10.	JEA Tank	Hypochlorite	12,000 gallons
11.	JEA Tank	Lube Oil	18,000 gallons
12.	JEA Tank	Lube Oil	7,000 gallons

II. St. Johns River Power Park.

A. AQCS Emergency Generator.

1. 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).

B. Power Block Emergency Generator.

1. 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).

Appendix I-1, List of Insignificant Emissions Units and/or Activities (cont.).

Jacksonville Electric Authority
Northside Generating Station/St. Johns River Power Park

DRAFT Permit No.: 0310045-011-AV **Facility ID No.:** 0310045

\sim	Ctamaca	. Tami	
U.	Storage	наш	ω.

1. JEA Tank	Lube Oil	10,000 gallons
2. JEA Tank	Lube Oil	18,000 gallons
3. JEA Tank	Sulfuric Acid	6,000 gallons
4. JEA Tank	Sulfuric Acid	10,000 gallons
5. JEA Tank	Sulfuric Acid	6,000 gallons
6. JEA Tank	Sulfuric Acid	6,000 gallons
7. JEA Tank	Caustic	10,000 gallons
8. JEA Tank	Caustic	6,000 gallons
9. JEA Tank	Hydrazine	6,000 gallons
10. JEA Tank	Hypochlorite	6,000 gallons

III. NGS Boiler No. 1, NGS CFB Boilers Nos. 1 and 2, and SJRPP Boilers Nos. 1 and 2.

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

IV. Solid Fuel Handling Facilities at the NGS and SJRPP.

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

V. SJRPP Removal of Landfilled Ash.

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

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

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

Jacksonville Electric Authority

Operation and Maintenance Plan

Operation and Maintenance

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

Daily:

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

Weekly:

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

Annually:

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

Operation and Maintenance Plan Page -2-

As Needed:

1. Wash furnace and air heaters.

Major Outages:

1. Overhaul the: (a) turbine/generator

(b) boiler and auxiliary equipment.

2. Calibrate the: (a) flow meters including sensing line checks;

(b) pneumatic controls;

c) temperature gauges.

Performance Parameters

The following operational parameters are to be recorded on a bi-hourly basis.

1. Steam flow.

2. Burner oil pressure.

3. Burner oil temperature.

Fuel Type: Number 6 residual oil unless otherwise stated.

Records

Records of all operating data and maintenance procedures listed herein shall be retained at the Generating Station for review, upon request, for a period of five (5) years.

LB/O&MPlan.doc

04/29/98

Attachment SJRPP: Material Handling Transfer Points

SJRPP Material Handling Transfer Points for Permitting

		D -1-4-	Cashs	hlpunlo=der	Points
Limeston		Points 1	14)	Bucket to Hopper (grain & dump)	2
1) 2)	Limestone receiving bin with 3 Unloading hoppers Unloading hoppers to FLD-1 Be:	3	15)	Hopper to Belt	1
3)	FLD-1 to LO	1	18)	Hopper Balt to CT1	,
•	10 to 11	1	17)	CT1 to CT2	,
4) .	L1 to L2	:	18).	CT2 to CT3	1
5)	- · · · · ·		19)	CT3 to CT4	ì
ර)	L2 to Storage Pile	1	. 20)	Reclaimer to CT4 (grab, dump,dump)	3
7)	Reclaim hopper	1	•	CT4 to CT5	1
8)	Hopper to 9LC-C2	1	21)	•	
9)	9LC-02 to Siico(2)	2		CT4 to S1 traveling conveyor	. 1
10)	Silos to 1LC-01,2LC-01 (to ball mills)	2		S1 Traveling conv. to S2 boom conv.	-
	Total	14		62 boom comy to excrage pile	1
			22)	CT5 to CZ	1
Coal-Yar			23)	CT6 to CT4	1
1)	Receiving bin with 4 Unloading hoppers	1		Total	16
2)	4 Unloading hoppors to FCC-1,2,3,4	4			
3)	FCD-1,2,3,4 to CO	4	Coal-P	etcoke Feeder System	
4)	CO to C1	1	24)	Hoppor	1
5)	C1 to C2	1	•	Happer to SPC-1	1
-7	C1 to emergancy seckout	1		SPC-1 to PC-1	1
5)	Control C4	1		FC-1 to C4	1
	C4 to C5			Total	
7)				Tutal	•
•	C4 to CT6	1	F10 F	oftom Ash Handling System	
8)	C5 tc C6	•			
S)	Ce to storage pila	1	25)	Flyash	
	Reclaim to C6 (grab and dump)	2		U#1-A&9 Salestile silo Bachouse (2)	
	CS to C4	. 1		& roof vents (2)	4
10)	Surge Bins			U#1-1 Non-saloable Silo Baghouse	
	C2 to Surge Bin	1		& rooi veni	2
	C3 to Surge Bin	1		U#1-A loadout Silo discharge (2)	
	C: to Surge Bin	1		& roof yen: (1)	3
	Surge Bin to FCR-A.B	2		U#1-E loadout Silo discharge (2)	
11)	FCR-A,B to Crustiers (2)	2		& roof yent (1)	3
•	Crushers (2)	2		U#Z-A&S Saleable silo Eaghouse (Z)	
	Crushers to C7,8	2		& mof yents (2)	4
12)	C7.8 to C9.10	2		U#2-A Non-saleable Silo Baghouse	
13)	C3,10 to 14 Coal Storage Silos	14		& roof yent	. 2
.07	Total	47		U#2-A loadout Silo discharge (2)	-
	1 Ocal	٠,		(1) Jean 3	3
				U#2-B loadout Silo discharge (2)	J
				& roof vent (1)	. з
	•		^		3
			26)	Bottom Ash	_
				U#1-A&B Silo to conveyor belt	2
				Conveyor bet to truck	1
				U#2-A&B Silo to convayor beit	2
				Conveyor bett to truck	1
			-	Total	30
	,`			Grand Total	777

NORTHSIDE STATION COMBUSTION TURBINES BASE LOAD MW vs TEMPERATURE

	AMBIENT	GROSS MW	x Coeff. Nel MW	HEAT CONSUMED	AMBIENT	GROSS MW	x Coeff. Nel MW	HEAT CONSUMED
#	• * F	(X)		METU/HR	F	(X)		MBTU/HR
1	20	67.97	67.63	868	(60	58.77	58.43	747
2	21	67.74	67.40	865	61	58.54	58.20	744
3	22	67.51	67.17	861	62	58.31	57.97	741
4	23	67.28	66.94	858	63	58.08	57.74	738
5	24	67.05	66.71	855	64	57.85	57.51	735
. 6	25	66.82	65.48	852	65	57.62	57.28	733
7	26	66.59	66.25	849	! 66	57.39	57.05	730
3	. 27	66.36		846	67	57.16	56.82	727
9	28	66.13	65.79	842	68	56.93	56.59	. 724
10	29	65.90	65.56	839	69	56.70	56.36	721
11	30	65.67	65.33	83 6	70	56.47	56.13	719
12	31	65.44	65.10	833	71	55.24	55.90	716
13	32	65.21	64.87	830	72	56.01	55.67	713
14	33	64.98	64.64	827	73	55.78	55.44	710
15	34	64.75	64.41	824	74	55.55	55.21	708
16	. 35	64.52	64.18	821	75	55.32	54.98	705
17	36	64.29	63.95	818	76	55.09	54.75	702
18	37	64.05	63.72	815	77	54.86	54.52	699
19	38	63.83	63.49	812	78	54.63	54.29	697
20	39	63.60	63.26	809	79	54.40	54.06	694
21	40	63.37	63.03	806] 80	54.17	53.83	691
22	41	63.14	62.80	802	81	53.94	53.60	689
23	42	62.91	62.57	799	82	53.71	53.37	686
24	43	62.68 .		796	j 83	53.48	53.14	683
25	44	62.45	62.11	793	1 84	53.25	52.91	681
25	45	62.22	61,88	791 700	j 85	53.02	52.68	678
27 28	46 47	61.99	61.65	78S	86 87	52.79	52.45	675
29	48	61.76 61.53	61.42 61.19	785 782	, 87 88	52.56 52.33	52.22 51.99	673 670
30	49	61.30	60.95	779	[89	52.33	51.99	657
31	50	€1.07	60.73	775 776	1 90	51.87	51.78	685
32	51	60.84	60.50	773	l .91	51.64	51.30	662
33	52	60.61	60.27	770	92	51.41	51.07	660
34	53	60.38	60.04	767	93	51.18	50.84	657
35	54	60.15	59.81	764	94	50.95	50.61	654
36	55	59.92	59.58	761	95	50.72	50.38	652
37	56	59.69	59.35	758	95	50.49	50.15	649
38	57	, 55.46	59.12	755	- 97	50.26	49.92	647
39	58	59.23	58.89	753	98 .	50.03	49.69	644
40	59	59.00	58.66	750	99	49.80	49.46	641
41	60	58.77	58.43	747	107	49.57	49.23	639

KSCT	
Y INTERCEPT	72.576
SLOPE	0.2301

DISPATCH HEAT RATE CURVES

እ =	1.78910E+02
B =	8.82453E+00
C =	-1.50705E-02
D =	5.20078E-04
AA =	3.40197E-01
= 5d	5.999875-01
CC =	1.79499E-07

40 CFR 60 Subpart A-General Provisions (Version dated 07/23/97)

These conditions are based on the July 1996 CFR version.

[Applicability note: These conditions are for an NSPS emissions unit (a.k.a. "federal facility") that has been built and has conducted the initial performance test(s) in accordance with 40 CFR 60.8.]

{Note: Rule 62-204.800(d), F.A.C., did not adopt/incorporate 40 CFR 60.4, 40 CFR 60.16, and 40 CFR 60.17.}

1. <u>Definitions</u>. For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term, "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee. [40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]

40 CFR 60.7 Notification and record keeping.

- 2. The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:
- (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

 [40 CFR 60.7(a)(4)]
- 3. The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.

 [40 CFR 60.7(b)]
- 4. Each owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:
- (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

 [40 CFR 60.7(c)(1), (2), (3), and (4)]
- 5. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.
- (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.
- (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance} (electronic file name: figure1.doc)

[40 CFR 60.7(d)(1) and (2)]

- 6. (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:
- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).
- (2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
- (3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After

demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e)(1)]

7. Any owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least 5 (five) years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7(f); Rule 62-213.440(1)(b)2.b., F.A.C.]

40 CFR 60.8 Performance tests.

8. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)]

40 CFR 60.11 Compliance with standards and maintenance requirements.

- 9. Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard. [40 CFR 60.11(a)]
- 10. Compliance with opacity standards in 40 CFR 60 shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A of 40 CFR 60, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5).

 [40 CFR 60.11(b)]
- 11. The opacity standards set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

 [40 CFR 60.11(c)]
- 12. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

 [40 CFR 60.11(d)]

13. The owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 40 CFR 60.8 in lieu of EPA Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he or she shall notify the

Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c), that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which EPA Method 9 data indicates noncompliance, the EPA Method 9 data will be used to determine opacity compliance.

[40 CFR 60.11(e)(5)]

40 CFR 60.12 Circumvention.

14. No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

40 CFR 60.13 Monitoring requirements.

- 15. For the purposes of 40 CFR 60.13, all continuous monitoring systems (CMS) required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

 [40 CFR 60.13(a)]
- 16. If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR 60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, Appendix B, of 40 CFR 60 before the performance test required under 40 CFR 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under 40 CFR 60.8 or within 30 days thereafter in accordance with the applicable performance specification in Appendix B of 40 CFR 60. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.
- (1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under 60.8 and as described in 40 CFR 60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in 40 CFR 60.13(c) at least 10 days before the performance test required under 60.8 is conducted.

 [40 CFR 60.13(c)(1)]

- 17. (1) Owners and operators of all continuous emission monitoring systems (CEMS) installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.
- (2) Unless otherwise approved by the Administrator, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.

 [40 CFR 60.13(d)(1) and (2)]
- 18. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems (CMS) shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:
- (1) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
- (2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

 [40 CFR 60.13(e)(1) and (2)]
- 19. All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.

 [40 CFR 60.13(f)]
- 20. When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems (CMS) on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

 [40 CFR 60.13(g)]
- 21. Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in 40 CFR 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally

spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non reduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

[40 CFR 60.13(h)]

[electronic file name: 40CFR60a.doc]

ENV 971219

CERTIFIED MAIL



December 19, 1997

The Department of Environmental Protection Division of Air Resources Management MS 5500 2600 Blair Stone Rd. Tallahassee, FL 32399-2400

DE.

FDEP Phase II Nitrogen Oxides (NOx) Compliance Plan Submittal

St. Johns River Power Park (SJRPP) Unit 2 Jacksonville Electric Authority (JEA) ORIS # 000207

Dear Sir/Madam:

Pursuant to Section 76.9 of 40 C.F.R. Part 76, the Jacksonville Electric Authority (JEA) hereby submits the "Phase II NOx Compliance Plan" for St. Johns River Power Park (SJRPP) Unit 2. Please note that SJRPP Unit 2 submitted a "Phase I Permit Application NOx Compliance Plan" for SJRPP Unit 2 on December 06, 1996. The plan was approved commencing January 1, 1997 which required SJRPP Unit 2 to meet the Phase I annual 0.5 lbs/mmBTU NOx emission rate limitation, as identified in 40 C.F. R. Part 76.5(a)(2).

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

Please contact Jay Worley at (904) 665-8729 if you have any questions concerning this submittal.

RECEIVED

DEC 24 1997

BUREAU OF AIR REGULATION Jon Eckenbach

Designated Representative

St. Johns River Power Park Unit 2

xc: U.S. EPA

J. Worley, SJRPP

H. Oven, FDEP

C. Maire, ADR

DEP Form No. 62-210.900(1)(a)4. - Form

Ellective

Florida Department of Environmental Protection

Phase II NO_X Compliance Plan For more Information, see Instructions and refer to 40 CFR 76.9

This submission is:	New Re	evised			••	Page	1 of 3
STEP 1 Indicate plant name, state, and ORIS code from NADB, if applicable.	ST. Plant NameJAC	JOHNS RIV	ER POWER PA ELECTRIC AU	RK (UNIT 2 THORITY) FL State	00020 ORIS Code	7
STEP 2	"CB" for cell burn	er, "CY" for cyclo	d Group 2 boller us one, "DBW" for dry the compliance of	bottom wall-fired,	T for tangentia		
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		1D# 2	ID#	ID#	ID#	ID#	ID#
		Type DBW	Туре	Туре	Туре	Туре	Туре
(a) Standard annual average e limitation of 0.50 lb/mmBtu (fo bottom wall-fired bollers)		X					
(b) Standard annual average a limitation of 0.45 lb/mmBtu (fo tangentially fired bollers)	emission or <u>Phase I</u>						
t) EPA-approved early election 40 CFR 76.8 through 12/31/07 above emission limit specified	(slao Indicate	X	· 🔲				
(d) Standard annual average e limitation of 0.46 lb/mmBtu (fo bottom wall-fired bollers)	mission or <u>Phase II</u> dry						
(e) Standard annual average e Hmitation of 0.40 lb/mmBtu (fo tangentially fired bollers)	mission r <u>Phase II</u>						
(f) Standard annual average er limitation of 0.68 lb/mmBtu (fo boliara)	nission ' r cell burner						
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limitation of 0.84 lb/mmBtu (for bollers)	wet bottom					. 🗀	
(j) NO. Averaging Plan (include) form)	NO. Averaging						
(k) Common stack pursuant 10 40 CFR 75.17(a)(2)(I)(A) heck the standard emission litr _oove for most stringent limitation to any unit utilizing stack)	ultation box on applicable						

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17200	,
Page 2	

ST. JOHNS RIVER POWER PARK (UNIT 2)

JACKSONVILLE ELECTRIC AUTHORITY

Plant Name (from Step 1)

Page 2 of 3

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(i) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO _x Averaging (check the NO _x Averaging Plan box and include NO _x Averaging Form)				• 🗖	. 🗆	, 🗀
(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)						
In) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)						
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing						<u> </u>
Repowering extension plan approved or under review	. 🔲			. 🗆		

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

Standard Regulrements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Add Rain Part of its Title V permit.

Special Provisions for Early Election Units

Nilrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).

Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan falls to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a fallure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO, for Phase II units with Group 1 bollers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

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Page 3

STEP 3, cont'd.

Certification

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

Name JON ECKENBACH, JEA DESIGNATED REPRESENTATIVE

Signature Date 12/19/97

JOHNS RIVER POWER PARK (UNIT 2)

APPENDIX CAM

Compliance Assurance Monitoring Requirements

JEA

Northside Generating Station

Emissions Units 026 & 027

St. Johns River Power Park

Emissions Units 016 & 017

Compliance Assurance Monitoring Requirements

Pursuant to Rule 62-213.440(1)(b)1.a., F.A.C., the CAM plans that are included in this appendix contain the monitoring requirements necessary to satisfy 40 CFR 64. Conditions 1. – 17. are generic conditions applicable to all emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the attached tables, as submitted by the applicant and approved by the Department.

40 CFR 64.6 Approval of Monitoring.

- The attached CAM plan(s), as submitted by the applicant, is/are approved for the purposes of satisfying the requirements of 40 CFR 64.3.
 [40 CFR 64.6(a)]
- 2. The attached CAM plan(s) include the following information:
 - (i) The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);
 - (ii) The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and
- (iii) The performance requirements established to satisfy 40 CFR 64.3(b) or (d), as applicable. [40 CFR 64.6(c)(1)]
- 3. The attached CAM plan(s) describe the means by which the owner or operator will define an exceedance of the permitted limits or an excursion from the stated indicator ranges and averaging periods for purposes of responding to (see CAM Conditions 5. 9.) and reporting exceedances or excursions (see CAM Conditions 10. 14.).
 [40 CFR 64.6(c)(2)]
- The permittee is required to conduct the monitoring specified in the attached CAM plan(s) and shall fulfill the obligations specified in the conditions below (see CAM Conditions 5. 17.).
 [40 CFR 64.6(c)(3)]

40 CFR 64.7 Operation of Approved Monitoring.

- Commencement of operation. The owner or operator shall conduct the monitoring required under this appendix upon the effective date of this Title V permit.
 CFR 64.7(a)]
- 6. Proper maintenance. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

 [40 CFR 64.7(b)]
- 7. Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the

operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 64.7(c)]

8. Response to excursions or exceedances.

- a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions, if allowed by this permit). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 CFR 64.7(d)(1) & (2)]

9. <u>Documentation of need for improved monitoring</u>. If the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[40 CFR 64.7(e)]

40 CFR 64.8 Quality Improvement Plan (QIP) Requirements.

10. Based on the results of a determination made under CAM Condition 8.a., above, the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with CAM Condition 4., an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, may require the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.

[40 CFR 64.8(a)]

11. Elements of a QIP:

- a. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
- b. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

- (i) Improved preventive maintenance practices.
- (ii) Process operation changes.
- (iii) Appropriate improvements to control methods.
- (iv) Other steps appropriate to correct control performance.
- (v) More frequent or improved monitoring (only in conjunction with one or more steps under CAM Condition 11.b(i) through (iv), above).

[40 CFR 64.8(b)]

12. If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

[40 CFR 64.8(c)]

- 13. Following implementation of a QIP, upon any subsequent determination pursuant to CAM Condition 8.b., the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
 - a. Failed to address the cause of the control device performance problems; or
 - b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

[40 CFR 64.8(d)]

14. Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

[40 CFR 64.8(e)]

40 CFR 64.9 Reporting And Recordkeeping Requirements.

- 15. General reporting requirements.
 - a. On and after the date specified in **CAM Condition 5.** by which the owner or operator must use monitoring that meets the requirements of this appendix, the owner or operator shall submit monitoring reports semi-annually to the permitting authority in accordance with Rule 62-213.440(1)(b)3.a., F.A.C.
 - b. A report for monitoring under this part shall include, at a minimum, the information required under Rule 62-213.440(1)(b)3.a., F.A.C., and the following information, as applicable:
 - (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - (iii) A description of the actions taken to implement a QIP during the reporting period as specified in **CAM Conditions 10.** through **14.** Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR 64.9(a)]

16. General recordkeeping requirements.

a. The owner or operator shall comply with the recordkeeping requirements specified in Rule 62-213.440(1)(b)2., F.A.C. The owner or operator shall maintain records of monitoring data,

- monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to **CAM Conditions 10.** through **14.** and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
- b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 CFR 64.9(b)]

40 CFR 64.10 Savings Provisions.

17. It should be noted that nothing in this appendix shall:

- a. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this appendix shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under Title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.
- b. Restrict or abrogate the authority of the Administrator or the permitting authority to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.
- c. Restrict or abrogate the authority of the Administrator or permitting authority to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.

[40 CFR 64.10]

Northside Generating Station

Emissions Units 026 & 027

2,764 MMBtu/Hr Coal And Petroleum Coke-Fired Boilers Particulate Matter Emissions Controlled By Baghouses

Monitoring Approach and Corrective Action Procedures

Table 1. Monitoring Approach

		Compliance Indicator
I.	Indicator	Stack opacity
	Measurement Approach	Continuous opacity monitoring system (COMS)
II.	Indicator Range	An excursion is defined as 5 consecutive 6-minute averages of opacity greater than 6.0%.
III.	Performance Criteria A. Data Representativeness	Based on available data under normal operation, the representative stack opacity of each unit is < 5 %. A 50% average opacity above 5% during non-startup or shutdown periods is atypical and may indicate a potential problem with the baghouse.
	B. Verification of Operational Status	Annual testing during normal operation is used to calibrate the opacity monitor and determine the opacity and verify particulate mass loading.
	C. QA/QC Practices and Criteria	Install and operate COMS according to 40 CFR Appendix B, Performance Specification 1 and general provisions 60.13.
	D. Monitoring Frequency	Continuous.
	E. Data Collection Procedures	The COMs collects data that are reduced to 6-minute averages. (5 consecutive 6-minute averages greater than 6.0% indicate an excursion)
	F. Averaging Period	6 minutes.

Table 2. Corrective Action Procedures Summary

	<u>Description</u>
on of Corrective Procedures	Corrective action shall be initiated with the discovery of 5 consecutive 6-minute averages of opacity greater than the opacity that defines an excursion (as defined in Table 1). The plant staff that made the discovery shall immediately notify the shift supervisor or responsible official. This action describes a corrective action trigger.
of Completion of etive Action lures	As soon as practically possible.
tive Action	The shift supervisor or responsible official will implement the following as a corrective action. Procedures as described in the Fabric Filter Bag Inspection and Diagnostic Procedures (FFBIDP) as presented in the Operations and Maintenance Plan (O&M Plan) includes the following alternatives that will be initiated as necessary. • Perform operational diagnostics to identify cause of the excursion. • If operational diagnostics indicate the failure of a bag(s), the failed bag will be identified and the reason for failure will be identified. • If isolation of the compartment can be accomplished to reduce opacity below the excursion, such measures will be undertaken. • In the event of the need for bag replacement, the task will be undertaken based on procedures described in the O&M Plan for the facility. Regardless of the failure mechanism, baghouse operation will be restored such that the cause of excursion is identified and appropriate actions taken to ensure opacity below excursion levels.

St. Johns River Power Park

Emissions Units 016 & 017

6,144 MMBtu/Hr Coal And Petroleum Coke-Fired Boilers Particulate Matter Emissions Controlled By ESP

Monitoring Approach and Corrective Action Procedures

Table 3. Monitoring Approach

		Compliance Indicator
IV.	Indicator	Duct opacity.
	Measurement Approach	Continuous opacity monitoring system (COMS).
V.	Indicator Range	An excursion is defined as any 1-hour block average of opacity greater than 18% (other than startup and shutdown periods).
VI.	Performance Criteria A. Data Representativeness	Based on available data under normal operation, the representative stack opacity of each unit is in the range of 5 to 15%. In addition, the COMS are located upstream of the scrubber and as such; the opacity at the stack exit is lower than the value indicated by the COMS. Therefore, 18% opacity during non-startup or shutdown periods is atypical and may indicate a potential problem with the ESP.
	B. Verification of Operational Status	Annual testing during normal operation is used to calibrate the opacity monitor and determine the opacity and verify particulate mass loading.
	C. QA/QC Practices and Criteria	Install and operate COMS according to 40 CFR Part 60 Appendix B, Performance Specification 1 and general provisions 60.13.
	D. Monitoring Frequency	Continuous.
	F. Data Collection Procedures	The COMS collects data that are reduced to 6-minute averages and the 1-hour block average is calculated based on the 6-minute averages.
	F. Averaging Period	One hour.

Table 4. Corrective Action Procedures Summary

		<u>Description</u>
IV.	Initiation of Corrective Action Procedures	Corrective action shall be initiated with the discovery of a one-hour block average of opacity greater than 18% and that defines an excursion (as defined in Table 1). The plant staff that made the discovery shall immediately notify the shift Leader or responsible official. This action describes a corrective action trigger.
V.	Time of Completion of Corrective Action Procedures	As soon as practically possible.
VI.	Corrective Action	The shift Leader or responsible official will implement the following as a corrective action. Procedures, as presented in the O&M Plan, include the following alternatives that will be initiated as necessary. • Perform operational diagnostics to identify cause of the excursion. • If operational diagnostics indicate a malfunction of the ESP, the reason for failure will be identified. • In the event of the need for the unit shutdown to bring opacity to below excursion levels, the task will be undertaken based on procedures described in the O&M Plan for the facility. Regardless of the failure mechanism, ESP operation will be restored such that the cause of excursion is identified and appropriate actions taken to ensure opacity below excursion levels.

Dear Barabara,

Please post the above referenced permitting projects located at:

o:Bar/Title V/Bruce/Permits/0310045.011.AV.Renewal.012.AC.JEA.SJRPP.NGS

0310045d.011.AV.Renewal.JEA.SJRPP.NGS 0310045.011AV.Appendix.CAM.SJRPP.NGS 0310045.011AV.AppendixCP-1.Compliance.Plan

0310045.011AV.Renewal.SOB 0310045.012AC.letterAC.Draft

0310045.012AC.TEPD 0310045G.011.AV 0310045H.011 0310045U.011.AV 0310045I.011.AV.012.AC

Many thanks!

Bruce

Mitchell, Bruce

From:

Friday, Barbara

Sent:

Tuesday, September 30, 2003 3:13 PM

To:

Walker, Elizabeth (AIR); Gracy Danois; Joel Huey; Kathleen Forney

Cc:

Mitchell, Bruce

Subject: New Posting #0310045

There is a new posting on Florida's website.

0310045011AV/0310045012AC

JEA - NORTHSIDE GENERATING STATION/ST. JOHN'S RIVER POWER PARK

Draft Permit Renewal

If you have any questions, feel free to contact me.

Thanks,

Barbara

Mitchell, Bruce

From:

Friday, Barbara

Sent:

Tuesday, September 30, 2003 3:28 PM

To:

'giannb@jea.com'

Cc:

Mitchell, Bruce

Subject: JEA - Northside/St. John's River Power Park DRAFT Title V Renewal #0310045-011-AV/0310045-

012-AC

Bert,

Find attached zip file for subject permit for your files and information per Bruce Mitchell's request.

If I may be of further assistance, please feel free to contact me.

Barbara J. Friday Planner II Title V Section Bureau of Air Regulation (850)921-9524 Barbara.Friday@dep.state.fl.us

Mitchell, Bruce

From:

Friday, Barbara

Sent:

Tuesday, September 30, 2003 3:14 PM

To:

'robinson@coj.net'

Cc:

Mitchell, Bruce

Subject: JEA - Northside/St. John's River DRAFT Title V Permit Renewal #0310045-011-AV/0310045-012-

Richard,

Find attached the zip file for subject DRAFT Permit Renewal for your files and information.

If I may be of further assistance, please feel free to contact me.

Barbara J. Friday Planner II Title V Section Bureau of Air Regulation (850)921-9524 Barbara.Friday@dep.state.fl.us