

Florida Department of Environmental Protection

Memorandum

TO: Trina L. Vielhauer, Chief, Bureau of Air Regulation
THROUGH: Jon Holtom, P.E., Title V Section *JH*
FROM: Scott M. Sheplak, P.E., Title V Section *SM*
DATE: October 7, 2010
SUBJECT: JEA's Northside Generating Station and St. Johns River Power Park
Separation Technologies LLC's Separation Technologies, Inc.

Intent to Issue Package

Air Construction Permit

Draft Permit No. 0310045-027-AC (revised)

Title V Air Operation Permit Revision

Draft/Proposed Permit No. 0310045-028-AV (revised)

Permitting Clock: not applicable

Attached for your review are the following documents:

- Cover Letter;
- Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit Revision w/ Public Notice;
- P.E. Certification Statement;
- Technical Evaluation and Preliminary Determination;
- Draft Air Construction Permit;
- Statement of Basis; and,
- Draft/Proposed Title V Air Operation Permit.

This application was received via hard copy. This project is for a Title V air operation permit revision to include multiple air construction (AC) permit projects and for the concurrent processing of a minor source AC permit to allow the combustion of landfill gas in the Circulating Fluidized Bed (CFB) Boiler Nos. 1 and 2 at the Northside Generating Station.

The Title V air operation permit revision application in my opinion is not controversial and is routine. The Title V air operation permit revision itself is administrative in nature. I do not anticipate any significant comments. Parallel (combined), e.g., draft/proposed, processing is recommended.

The applicant changed the scope of the landfill project which altered the content of the previously issued draft AC permit and corresponding Title V permit. Also, significant changes were made to the previously issued draft AC permit. The public notice was never published. The applicant also requested that this project include another AC permit, Permit No. 0310045-029-AC. Revised AC/Title V permits are necessary in my opinion.

To simplify review and issuance, only the changes related to this project were printed; a complete up-to-date Title V permit will be posted on the web site. Also, the new changes as a result of the revised AC/Title V permit are tabbed with blue tabs. The other proposed changes were previously reviewed internally.

I recommend withdrawing the previously issued package clerked on April 27, 2010 and request your approval of the attached revised permits for this project.

TLV/jkh/sms

Attachments

P.E. CERTIFICATION STATEMENT

APPLICANT

JEA
21 West Church Street
Jacksonville, Florida 32202

Draft/Proposed Permit No. 0310045-028-AV
Draft Permit No. 0310045-027-AC

NGS/SJRPP/ST Facility

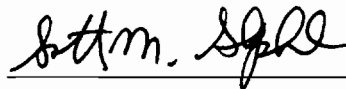
PROJECT TYPE: Title V Air Operation Permit, 1st Revision of Permit No. 0310045-020-AV
Minor Source Air Construction Permit - Combustion of Landfill Gas in the CFB Boiler
Nos. 1 and 2

PROJECT DESCRIPTION

This project is for a Title V air operation permit revision to include multiple air construction (AC) permit projects and for the concurrent processing of a minor source AC permit to allow the combustion of landfill gas in the CFB Boiler Nos. 1 and 2. The Statement of Basis contains more details on the specific revisions made to the Title V air operation permit.

This project is subject to the general preconstruction review requirements in Rule 62-212.300, Florida Administrative Code (F.A.C.) and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. The Department's full review of the project and rationale for issuing the draft air construction permit is provided in the Technical Evaluation and Preliminary Determination.

I HEREBY CERTIFY that the air pollution control 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 F.A.C. Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify any other aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, civil, mechanical, structural, hydrological, geological, meteorological features, and the federal greenhouse gas regulations).



Scott M. Sheplak
Professional Engineer (P.E.)
License Number 48866



SMS/

Permitting Authority:

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

**TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION**

APPLICANT

JEA
Northside Generating Station and St. Johns River Power Park (NGS/SJRPP)
Separations Technology, LLC (ST) Facility
Facility ID No. 0310045

PROJECT

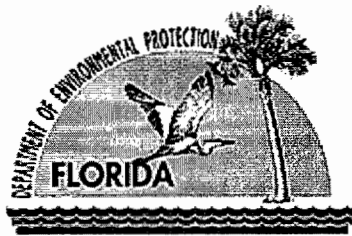
Draft Permit No. 0310045-027-AC
Application for Minor Source Air Construction Permit
Combustion of Landfill Gas in the CFB Boiler Nos. 1 and 2
Landfill Gas-to-Energy

COUNTY

Duval County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400



September 27, 2010

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

Facility Description and Location

The NGS/SJRPP/ST Facility is an existing power plant, which is categorized under Standard Industrial Classification Code No. 4911. The NGS/SJRPP/ST Facility is located in Duval County at 4377 Heckscher Drive in Jacksonville, Florida. The UTM coordinates of this facility are Zone 17, 446.90 kilometer (km) East, and 3359.150 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The facility is a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

JEA has requested to be allowed to burn 195 standard cubic feet per minute (scfm) of landfill gas in the Circulating Fluidized Bed Boiler (CFB) Nos. 1 and 2 (total).

Processing Schedule

08/10/2009	Received a concurrent minor source air pollution construction (AC) permit/Title V air operation permit revision application; incomplete.
09/23/2009	Requested additional information.
01/26/2010	Received response to additional information request.
02/10/2010 & 02/17/2010	Requested additional information.
02/25/2010	Received response to additional information request; application complete.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

04/27/2010 1st draft permit issued (clerked).
08/12/2010 Received comments regarding 1st draft permit; changing scope of project

Relevant Documents

- JEA-NGS/SJRPP/ST, Air Permit Nos. 0310045-001-AV and 0310045-020-AV.
- North Landfill, Air Permit No. 0310340-005-AV.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 5 tons per year (TPY) or more of lead;
- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides (NO_x); sulfur dioxide (SO₂); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM₁₀); volatile organic compounds (VOC); lead (Pb); fluorides (F); sulfuric acid mist (SAM); hydrogen sulfide (H₂S); total reduced sulfur (TRS), including H₂S; reduced sulfur compounds, including H₂S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO₂ and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 µg/m³, 24-hour average.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered “significant” for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several “significant” regulated pollutants.

PSD Applicability for Project

This proposed project is at an existing major stationary source with respect to PSD. Therefore, this proposed project’s emissions are evaluated against the significant emission rates.

Air pollutant emissions from the combustion of landfill gas are expected to be the typical products of combustion, e.g., VOC, CO, NO_x and PM/PM₁₀. One of the pollutants of concern which could trigger PSD is SO₂. Combustion of landfill gas with a sulfur content higher than the natural gas currently being burned results in an increase in SO₂ emissions. The applicant claims that there will be no changes to any other air pollutants. The following table summarizes potential emissions and PSD applicability for the project.

Table A - Summary of PSD Applicability Analysis

Pollutant			
	Increase, TPY	Significant Emission Rates (SER), TPY	Subject to PSD?
CO	NA ¹	100	No
NO _x	NA	40	No
PM	NA	25	No
PM ₁₀	NA	15	No
SO ₂ ²	0.12	40	No
VOC	NA	40	No

¹ “NA” refers to not applicable. ² SO₂ is shown here for informational purposes, see calculation and discussion below.

The total project emissions are not expected to exceed the PSD significant emissions rates; therefore, the project is not subject to PSD preconstruction review.

3. DEPARTMENT REVIEW

3.1 Present Situation - Combustion in Circulating Fluidized Bed Boiler (CFB) Nos. 1 and 2

The JEA NGS CFB boilers are circulating fluidized bed boilers. The JEA CFB Boiler Nos. 1 and 2 currently fire coal, petroleum coke, No. 2 fuel oil or natural gas or a combination thereof.

Currently, JEA is authorized to burn 100% landfill gas in NGS Boiler No. 3 (E.U. ID No. -003) and is also allowed to burn landfill gas in the limestone dryers (E.U. ID No. -033). Review of annual operating report (AOR) data from the Department’s Air Resource Management System (ARMS) database indicates the following quantities of landfill gas were burned in the NGS Boiler No. 3, as shown in Table B.

Table B - Landfill Gas Burned in NGS Boiler No. 3

Year	Quantity, million ft ³ /yr
2008	0
2007	13
2006	31
2005	97
2004	105
2003	144
2002	169
2001	168
2000	279
1999	175

After reviewing this data, the greatest quantity of landfill gas burned in the NGS Boiler No. 3 was in the year 2000 with 279 million ft³, which was approximately 14% of the total heat input to the boiler. The quantity of landfill gas combusted in the boiler has decreased from the year 2000 to 2008.

3.2 Landfill Gas Generation and Emissions

Landfill Gas Collection and Control System

Landfill gas is typically collected with a system comprised of wells and piping then sent through headers to a flare. Figure 1 shows a typical landfill gas collection and control system with a flare.

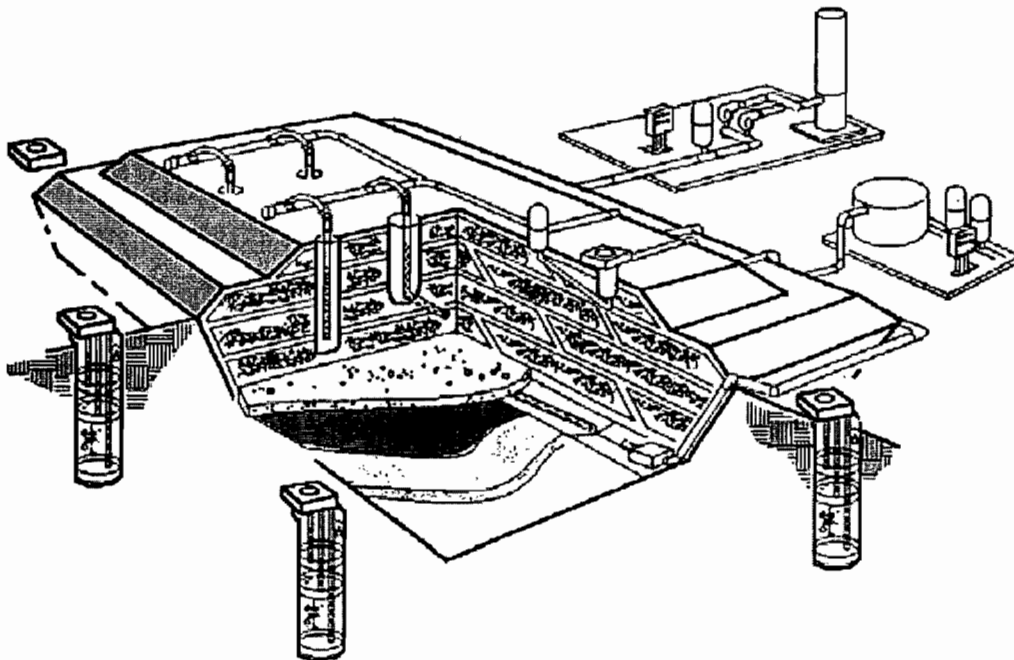


Figure 1 - Typical Landfill Gas Collection and Control System with a Flare.

Present Situation - Generation of Landfill Gas

Landfill gas is being generated from the adjacent North Landfill operated by the City of Jacksonville which is located directly north of the JEA NGS/SJRPP/ST power plant at 11405 Island Drive in Duval County. The landfill is permitted to operate under Air Permit No. 0310340-005-AV. The air permit for the landfill authorizes a flare with the capacity to burn 1,655 million ft³ of landfill gas per year (3,150 acfm). When the landfill gas is flared it is simply burned; there is no energy recovery. As previously mentioned, the JEA NGS Boiler No. 3 is currently allowed to combust landfill gas. When JEA is unable to burn the landfill gas in the JEA Boiler No. 3 it is flared. Prior to the gas being sent to the JEA Boiler No. 3 it is sent to a treatment system located at the landfill. The air permit, Permit No. 0310340-005-AV, for the landfill describes this treatment system in detail. The landfill gas treatment system located specifically at the Fuel Gas Compressor System Skid (FGCS) consists of the processes described below:

1. At the inlet a filtered vessel is used to stop particulates from entering the system.
Particulate is reduced to less than 10 microns.
2. A compressor which raises the gas pressure to send the gas down the pipeline.
3. A knockout vessel which filters the compressor oil out of the gas.
4. An Air X-Changer which cools the gas and produces condensate.
5. A knockout vessel to remove the condensate.
6. A heat exchanger which cools the gas further and produces condensate.

Review of AOR data from the Department's ARMS database indicates the following quantities of landfill gas were flared at the North Landfill, as shown in Table C.

Table C - Landfill Gas Flared at North Landfill

Year	Quantity, million ft ³ /yr
2008	217
2007	207
2006	269
2005	231
2004	236
2003	228
2002	231
2001	221
2000	120
1999	680
1998	1,379

According to Department records, the flare at the North Landfill started operation in 1997. In reviewing this data, the greatest quantity of landfill gas flared was in the year 1998 with 1,379 million ft³, which was approximately at 83% of the flare's capacity. The quantity of landfill gas being flared decreased from 680 million ft³ in the year 1999 to 120 million ft³ in the year 2000. Looking at the subsequent years, the landfill gas generation appears to have leveled off after 1999.

3.3 Proposed Project - Combustion of Landfill Gas in Circulating Fluidized Bed Boiler Nos. 1 and 2

JEA has requested to be allowed to burn 195 scfm landfill gas in the Circulating Fluidized Bed Boiler (CFB) Nos. 1 and 2 (total). Individually, this equates to about 100 scfm per boiler at a heat input of about 6 MMBtu/hr. This represents approximately 0.22% of the total maximum heat input to each boiler. The combustion of landfill gas in these boilers results in the benefit of generating electricity instead of flaring it. The JEA-NGS/SJRPP/ST facility could generate up to an estimated 1.31 MW of electricity from the combustion of 195 scfm of landfill gas in the CFB Nos. 1 and 2 (total).

The applicant requests no change to the currently applicable emission standards and limitations.

3.4 SO₂ Emissions from the Combustion of Landfill Gas

SO₂ is generated from the combustion of the landfill gas containing hydrogen sulfide (H₂S). To calculate SO₂ emissions, the quantity of landfill gas expected along with the expected H₂S content of the landfill gas is needed.

Future Landfill Gas Generation Estimates

JEA submitted information regarding projected (modeled) landfill gas generation from the North Landfill in the form of landfill gas generation curve. Figure 2 is the actual landfill gas generation curve that had been provided. The curve shows a peak gas generation in 1993 of about 1,100 scfm, which is equivalent to approximately 578 million ft³. In 2010, the gas generation is estimated to be 775 scfm, which is equivalent to approximately 407 million ft³. The landfill is projected to continue to generate gas until at least the year 2035. Table D shows some data points of interest from the landfill gas curve.

Comparing the landfill curve estimate to the actual flared quantity in 1998, the landfill curve estimates 975 scfm (equivalent to about 512 million ft³). The actual quantity of gas burned was 1,379 million ft³, which is greater than what is estimated by the curve, by a factor of 2 ½. Potential emissions were based on the landfill gas generation curve which is a landfill gas projection. When an actual gas generation is greater than what is projected, emissions could increase due to a larger quantity of landfill gas.

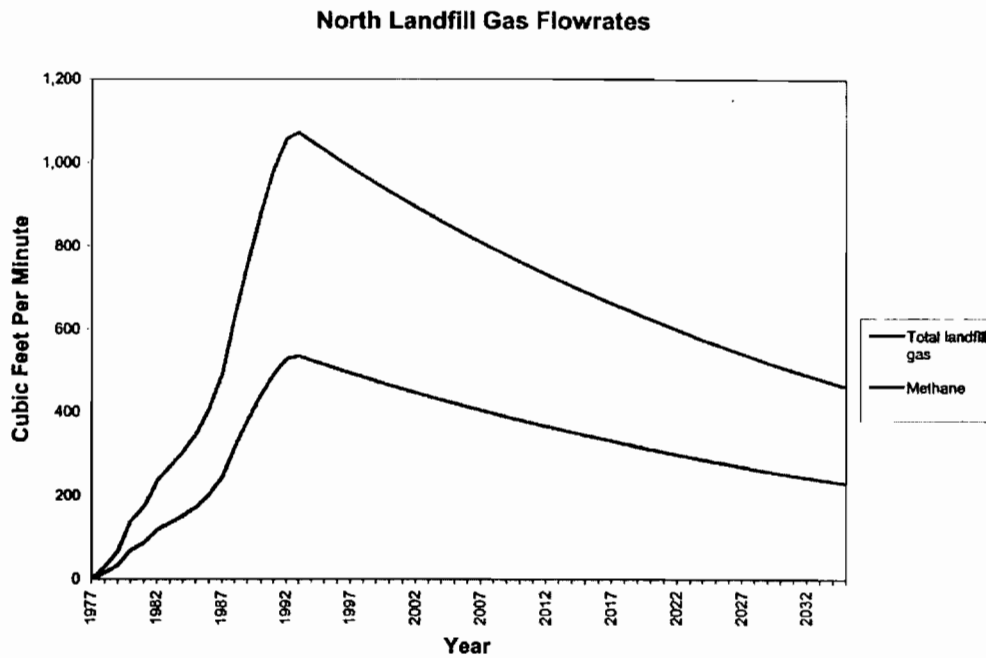


Figure 4-2
North Landfill Model Curve

Figure 2 - Landfill Gas Generation Curve for the North Landfill

Table D - Landfill Gas Generation Curve, Data Points of Interest

Year	Estimated Quantity, scfm, from gas curve	Calculated Equivalent Quantity, million ft ³ /yr
2035	475	250
2010	775	407
2008	800	420
2003	900	473
1999	950	499
1998	9750	512
1993	1,100	578
{peak gas generation}		

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The requested total landfill gas to be burned in the Circulating Fluidized Bed Boiler Nos. 1 and 2 as previously mentioned is 195 scfm. This represents about 25% (¼) of the quantity projected by the gas curve in 2010.

General Overview of H₂S Content of Landfill Gas

Hydrogen sulfide (H₂S) can be present at concentrations on the order of 10,000 parts per million by volume (ppmv) or 1% that must be considered from the standpoint of odor as well as potential emissions of PSD pollutants upon combustion.¹ An example of a landfill with a high H₂S content landfill gas is the Okeechobee Landfill (Facility ID No. 0930104) which contains approximately 5,800 ppmv of H₂S. Another landfill, the Central Landfill in Pompano Beach (Facility ID No. 0112094) was confirmed to have elevated H₂S levels up to 5,000 ppmv.² The AP-42 emission factor for H₂S is 35.5 ppmv (11/1998). The H₂S content of landfill gas is greater than 100 ppmv.³ Some landfill sites containing high volumes of H₂S generating wastes like construction and demolition (C&D) and sewage sludge can result in up to 50,000 ppmv of H₂S in the landfill gas.⁴ H₂S has a reported odor threshold ranging from approximately 0.0005 - 0.3 ppmvd.⁵

The generation of H₂S in landfill gas peaks within 6 months to 2 years and lasts for 10 years or more.⁶ Therefore, both the contents and the age of the landfill matters in determining H₂S levels at a given point in time.

H₂S Content of Landfill Gas in the North Landfill Gas

The air permit does not indicate whether or not the landfill contains C&D debris. According to the landfill supervisor, the North Landfill does contain C&D debris.⁷ The maximum sulfur content of the landfill gas is claimed to be 48.2 parts per million volume dry (ppmvd). The natural gas presently being combusted in the CFB boilers contains 34 ppmvd of H₂S. The difference in sulfur content is 14.2 ppmvd.

SO₂ Emissions Calculated

Uncontrolled SO₂ emissions can be theoretically calculated using the following equation:

$$[(Q \text{ ft}^3/\text{min}) \times (x \text{ ppmvd}) \text{ ft}^3 \text{ H}_2\text{S}/1,000,000 \text{ ft}^3] \times (60 \text{ min./hour}) \times (8,760 \text{ hrs/year}) \times (\text{lb-mol H}_2\text{S}/379 \text{ ft}^3 \text{ H}_2\text{S}) \times (\text{lb-mol SO}_2/\text{lb-mol H}_2\text{S}) \times (64 \text{ lb SO}_2/\text{lb-mol SO}_2) \times (\text{ton SO}_2/2,000 \text{ lb SO}_2) = \text{TPY SO}_2$$

Using this equation and the difference in sulfur content, an increase in SO₂ emissions can be theoretically calculated. Assuming no control efficiency from the presently installed and operational lime injection and dry absorber scrubber, uncontrolled emissions of SO₂ are calculated to be 0.12 TPY, with the data as summarized in Table E.

Table E- Calculated SO₂ Emissions Increase

E.U. ID Nos.	H ₂ S content Natural gas, ppmvd	H ₂ S content landfill gas, ppmvd	x, H ₂ S content difference, ppmvd	Q, landfill gas flow rate to boilers, scfm	SO ₂ , TPY, Uncontrolled emissions
-026 NGS CFB Boiler No. 2	34	48.2	+14.2	195	+0.12
-027 NGS CFB Boiler No. 1					

Using control efficiencies of 40% estimated from the lime injection and 90% estimated for the spray dryer absorber, actual emissions are calculated to be approximately 0.0072 TPY, which supports the applicant's claim of a negligible emissions increase.

Under this project request, JEA proposed to inject limestone into the CFB boiler beds or use the spray dryer absorber as necessary to maintain SO₂ emissions within permit limits at all times.

3.5 Federal Requirements

The CFB Boiler Nos.1 and 2 are regulated under NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD; PSD-FL-265; PSD-FL-265(A, B and C)]; and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination; and, Compliance Assurance Monitoring (CAM); and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR).

No additional federal requirements are applicable as a result of this project.

3.6 Requirements - Permits Required

The Department requires the owner or operator of any emissions unit to obtain an appropriate permit prior to beginning construction, modification, or initial or continued operation, unless exempted pursuant to Department rule or statute. The Department's rule for specifically when an air construction permit is required is found at Rule 62-210.300(1), F.A.C.

The Department has specific rules on when an air operation permit is required {see Rule 62-210.300(2), F.A.C.} and when activity is exempt from permitting {see Rules 62-210.300(3) and 62-4.040, F.A.C.}.

The proposed activity is not specifically exempted from permitting in Rules 62-210.300(3) or 62-4.040, F.A.C.

Air Construction Permit Required

The proposed activity involves physical changes and a change in the method of operation at the facility. A new gas line may be installed to deliver landfill gas to a lance above the existing above-bed burners in the CFB Boiler Nos. 1 and 2.

The proposed project may increase actual SO₂ emissions slightly as indicated above.

The Department therefore requires an air construction permit for the owner or operator to proceed with the proposed activity in accordance with Rule 62-210.300(1)(a), F.A.C.

Title V Air Operation Permit Required

This existing facility currently operates under a Title V air operation permit. A revision to the Title V air operation permit is required to allow the operation of the proposed activity.

3.7 Draft Permit Requirements

As previously stated, SO₂ emissions estimated in this project could be greater, up to a factor of 200 times higher, especially if H₂S generating wastes are in the landfill presently or in the future. Considering these factors alone, SO₂ emissions could be up to 3.6 TPY [0.0072 TPY (controlled emissions) x 2.5 (landfill gas generation factor) x 200 (H₂S content factor) = 3.6 TPY]. Based on the gas curve the requested landfill gas quantity of 195 scfm is about ¼ of the total landfill gas being generated. Therefore, an increase in the quantity of landfill gas being burned and/or a higher H₂S content could approach the PSD SER for SO₂.

On-site sampling of the landfill gas had indicated an H₂S content of 48.2 ppmvd. The H₂S claim of 48.2 ppmvd was relied upon in this application. Due to the boilers being equipped with air pollution control devices specifically for SO₂ and that each is equipped with SO₂ continuous emissions monitoring system (CEMS), an H₂S content analysis of the landfill gas was deemed unnecessary. An H₂S analysis would only be informational to the Department.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

A restriction on the quantity of landfill gas combusted provides reasonable assurances that the SO₂ emissions will be less than the PSD SER. As requested by the applicant, the quantity of landfill gas allowed to be burned under this project evaluation is limited to 195 scfm or 11,700 scf/hour (total) which is equivalent to 6 MMBtu/hr heat input. The landfill gas may be burned in combination with other authorized fuels provided the maximum heat input to each boiler is not exceeded.

As proposed by the applicant, a requirement to inject limestone into the CFB boiler beds or use the spray dryer absorber as necessary to maintain SO₂ emissions within permit limits as recorded by the CEMS at all times is added to the permit.

The applicant stated that there should be no effect on combustion in the CFB boilers. Any changes to opacity should be measured and recorded by the continuous opacity monitors (COMS). An initial compliance test for visible emissions (VE) is therefore not deemed necessary.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions.

Mr. Scott M. Sheplak, P.E. is the project engineer responsible for reviewing the application, preparing the Technical Evaluation & Preliminary Determination and drafting the permit. Additional details of this analysis may be obtained by contacting him by telephone at 850/921-9532 or by e-mail at scott.sheplak@dep.state.fl.us in the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

References

¹ Worldwide Web. Florida DEP Website: <http://www.dep.state.fl.us/air/emission/construction/okeechobee/TECH382.pdf>. Technical Evaluation and Preliminary Determination for Project No. PSD-FL-382/0930104-014- AC, Okeechobee Landfill, Inc. NSR/PSD Construction Permits and Waste-to-Energy, Landfills and Recycling links. Accessed February 12, 2010.

² DEP Trip Report dated February 21, 2007; site visit on January 10, 2007.

³ Waste Age Magazine. *Odors & Landfill Gas from C&D Waste* by Brian E. Flynn; January 1998.

⁴ Worldwide Web. Merichem Company Website: <http://www.merichem.com/> Doug Heguy and Jean Bogner. Accessed on May 25, 2007.

⁵ Worldwide Web. U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry (ATSDR) Website: <http://www.atsdr.cdc.gov/toxprofiles/tp114-c4.pdf> Toxicological Profile Information Sheet links. Accessed February 12, 2010.

⁶ See Reference 2.

⁷ Telephone conversation between Scott Sheplak, DEP and the City of Jacksonville North Landfill supervisor, Timothy Ghee on April 21, 2010.

Draft Permit

PERMITTEE

JEA
21 West Church Street
Jacksonville, Florida 32202

Draft Permit No. 0310045-027-AC
Permit Expires: June 30, 2011
Minor Air Construction Permit

Authorized Representative:
Mr. James M. Chansler, P.E., D.P.A.
Chief Operating Officer

NGS/SJRPP/ST Facility
Combustion of Landfill Gas in the
CFB Boiler Nos. 1 and 2

PROJECT

This is the final air construction permit, which authorizes the combustion of landfill gas in the CFB Boiler Nos. 1 and 2. The proposed work will be conducted at the existing NGS/SJRPP/ST Facility, which is a power plant categorized under Standard Industrial Classification No. 4911. The NGS/SJRPP/ST Facility is located in Duval County at 4377 Heckscher Drive in Jacksonville, Florida. The UTM coordinates of this facility are Zone 17, 446.90 kilometer (km) East, and 3359.150 km North.

This permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit. [(if applicable) As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.]

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes 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 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

(Draft)

Joseph Kahn, Director
Division of Air Resource Management

Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on _____ (Draft) _____ to the persons listed below.

- Mr. James M. Chansler, P.E., D.P.A., Chief Operating Officer, JEA: chanjm@jea.com
- Mr. N. Bert Gianazza, P.E., JEA: giannb@jea.com
- Mr. David A. Buff, P.E., Golder Associates, Inc.: dbuff@golder.com
- Mr. Kennard F. Kosky, P.E., Golder Associates, Inc.: ken_kosky@golder.com
- Mr. Chris Kirts, P.E., DEP NED: christopher.kirts@dep.state.fl.us
- Mr. Richard Robinson, P.E., ERMD/EQD/AQB: robinson@coj.net
- Ms. Katy R. Forney, U.S. EPA Region 4: forney.kathleen@epa.epa.gov
- Mr. Mike Halpin, P.E., DEP Siting Office: michael.halpin@dep.state.fl.us
- Ms. Ana Oquendo-Vazquez, U.S. EPA Region 4: oquendo.ana@epa.gov
- Ms. Barbara Friday, DEP BAR: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)
- Ms. Victoria Gibson, DEP BAR: victoria.gibson@dep.state.fl.us (for reading file)

Clerk Stamp

FILED 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.

(Draft)

(Clerk)

(Date)

SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

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

NGS and SJRPP:

These operations consist of 5 boilers, NGS existing Boiler No. 3, which is a pre-NSPS boiler with a nominal rating of 564 MW and fired by natural gas, landfill gas, No. 6 residual fuel oil, and used oil; Boilers Nos. 1 and 2 and Auxiliary Boiler No. 1 have been permanently shutdown; NGS CFB Boilers Nos. 1 and 2, which are two coal, coal coated with latex, 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 by firing low sulfur fuel oil. Each NGS CFB boiler is equipped with a selective non-catalytic reduction (SNCR) system to reduce nitrogen oxides (NO_x) emissions, limestone injection to reduce sulfur dioxide (SO₂) emissions, fabric filter to reduce particulate matter (PM and PM₁₀) emissions, while maximizing combustion efficiency and minimizing NO_x formation to limit carbon monoxide (CO) and volatile organic compound (VOC) emissions. Emissions from the SJRPP Boilers Nos. 1 and 2 are controlled with an electrostatic precipitator, a limestone scrubber, and low-NO_x burners. The SJRPP and NGS facilities also include coal, petroleum coke, limestone and fly ash handling activities, of which various control devices, control strategies, and control techniques are required.

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

ST:

ST has constructed, owns and operates a fly ash processing system on a portion of leased property at the JEA SJRPP facility in Duval County, Florida. The purpose of the equipment is to remove the residual carbon and ammonia from the JEA SJRPP fly ash leaving a saleable product.

PROPOSED PROJECT

JEA has requested to be allowed to burn 195 standard cubic feet per minute (scfm) of landfill gas in the Circulating Fluidized Bed Boiler (CFB) Nos. 1 and 2 (total).

This project will modify the following emissions units.

Facility ID No. 0310045	
E.U. ID No.	Emission Unit Description
-027	NGS: Circulating Fluidized Bed Boiler No. 1
-026	NGS: Circulating Fluidized Bed Boiler No. 2

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Bureau of Air Regulation, Division of Air Resource Management, Florida Department of Environmental Protection (Department). The Bureau of Air Regulation's mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Quality Branch, Environmental Quality Division, Environmental and Compliance Department, City of Jacksonville, Jake Godbold City Hall Annex, 407 North Laura Street, Third Floor, Jacksonville, Florida 32202, Phone: 904/255-7201, Fax: 904/588-0518.
3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); and Appendix D (Common Testing Requirements).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Source Obligation:
 - (a) Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit. [Rule 62-212.400(12)(a), F.A.C.]
 - (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. [Rule 62-212.400(12)(b), F.A.C.]
 - (c) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. [Rule 62-212.400(12)(c), F.A.C.]
8. Application for Title V Air Operation Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. NGS: Circulating Fluidized Bed Boiler Nos. 1 and 2

This section of the permit addresses the following emissions units.

E.U. ID No.	Emission Unit Description
-027	NGS: Circulating Fluidized Bed Boiler No. 1
-026	NGS: Circulating Fluidized Bed Boiler No. 2

These emissions units are two coal, coal coated with latex, and petroleum coke fired circulating fluidized bed (CFB) boilers. These boilers are connected to the existing steam turbines of the retired Boilers Nos. 1 and 2 (297.5 MW each) as part of the repowering project authorized under air construction permit, No. 0310045-003-AC/PSD-FL-265. A dual-flued 495-foot stack was added to the facility for Repowered Units 1 and 2, along with solid fuel delivery and storage facilities, limestone preparation and storage facilities (including three limestone dryers), a lime silo, aqueous ammonia storage, polishing scrubbers, precipitators or baghouses, ash removal and storage facilities, and an electrical substation. The stack diameter is 15 feet, exit temperature is 144 degrees F and the actual stack gas flow rate is 700,000 acfm.

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

CFB Boiler Nos. 1 and 2 began operation in February 2002 and May 2002, respectively.

JEA is allowed to burn 195 standard cubic feet per minute (scfm) of landfill gas in the CFB Boiler Nos. 1 and 2 (total). The 195 scfm of landfill gas is equivalent to a heat input of 6 MMBtu/hr. The landfill gas is being generated from the adjacent North Landfill (Facility ID No. 0310340) operated by the City of Jacksonville which is located directly north of the JEA NGS/SJRPP/ST power plant at 11405 Island Drive in Duval County. The sulfur content, as H₂S, of the landfill gas is expected to be 48.2 parts per million volume dry (ppmvd). The natural gas presently being combusted in the CFB boilers typically contains 34 ppmvd of H₂S.

{Permitting notes: The emissions units are regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(8)(b)2., F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD; PSD-FL-265; PSD-FL-265(A, B & C)]; and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination; and, Compliance Assurance Monitoring (CAM), adopted and incorporated in Rule 62-204.800, F.A.C.; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR).}

NEW AND PREVIOUS PERMIT SPECIFIC CONDITIONS

1. **Source Obligation:** A relaxation of the specific terms and conditions of this permit may subject the facility to a BACT determination. Specifically, an increase in the quantity of landfill gas burned and/or the H₂S content of the landfill gas could trigger a BACT determination. {See Rule 62-212.400(12)(a) - (c), F.A.C., Section 2., specific condition 7.} Any request to change the specific terms and conditions of this permit must be submitted to the Bureau of Air Regulation in the Division of Air Resource Management of the Florida Department of Environmental Protection. [Rule 62-212.400(12)(a) - (c) (Source Obligation), F.A.C.]
2. **Other Permits:** The specific terms and conditions of this permit are in addition to any other applicable standards. [Proposed by the Applicant in the Application; and, Rules 62-4.070(1) and (3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. NGS: Circulating Fluidized Bed Boiler Nos. 1 and 2

EQUIPMENT

3. New Equipment: The permittee is authorized to install a new gas line to deliver landfill gas to a lance above the existing above-bed burners in the CFB Boiler Nos. 1 and 2. [Application No. 0310045-027-AC.]
4. Existing Equipment: The permittee is authorized to combine landfill gas with natural gas in the existing pipeline delivering it to the CFB Boiler Nos. 1 and 2. [Application No. 0310045-027-AC.]

PERFORMANCE RESTRICTIONS

5. Permitted Capacity: The maximum landfill gas firing rate for the CFB Boiler Nos. 1 and 2 is as follows:

E.U. ID No.	scf/hr
-026 and -027	11,700 (total)

Landfill gas may be burned in combination with other authorized fuels provided the maximum heat input to each boiler is not exceeded. [Rules 62-4.160(2) and 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; and, Application No. 0310045-027-AC.]

6. Authorized Fuel: The combustion of landfill gas in the CFB Boiler Nos. 1 and 2 is an additional authorized method of operation. [Rule 62-213.410, F.A.C.; and, Application No. 0310045-027-AC.]

AIR POLLUTION CONTROL TECHNOLOGIES AND MEASURES

7. Sulfur Dioxide (SO₂): The permittee shall inject limestone into the CFB boiler beds or use the spray dryer absorber as necessary to maintain SO₂ emissions within permit limits as recorded by the continuous emissions monitoring system (CEMS) at all times. [Proposed by the Applicant in the Application; and, Rules 62-4.070(1) and (3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Application No. 0310045-027-AC.]

EMISSION STANDARDS AND LIMITATIONS

8. Emission Standards and Limitations: When burning landfill gas, the permittee shall comply with the currently applicable emission standards and limitations to the CFB Boiler Nos. 1 and 2 as determined by the continuous emissions monitoring system (CEMS) and continuous opacity monitors (COMS). [Application No. 0310045-027-AC.]

RECORDKEEPING AND REPORTING REQUIREMENTS

9. Fuel Consumption Records: The permittee shall maintain, for each boiler, a daily log of the amount of landfill gas fired. [Rules 62-4.070(1) and (3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Application No. 0310045-027-AC.]
10. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. For each test run, the report shall also indicate the quantity of landfill gas burned. [Rule 62-297.310(8), F.A.C.; and, Application No. 0310045-027-AC.]
11. Annual Operating Report (AOR): The permittee shall submit the quantity of landfill gas combusted in each boiler with the AOR. [Rules 62-4.070(1) and (3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Application No. 0310045-027-AC.]
12. Notification: The permittee shall notify the Department of the date when construction is commenced and when construction is completed for the new gas line to deliver landfill gas to a lance above the existing above-bed burners in the CFB Boiler Nos. 1 and 2. Prior to the expiration date of this permit, the permittee shall notify the permitting authority whether or not the new gas line was installed. [Application No. 0310045-027-AC.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. NGS: Circulating Fluidized Bed Boiler Nos. 1 and 2

13. Notification: The permittee shall notify the Department of the date when landfill gas is initially combusted in each CFB Boiler. [Application No. 0310045-027-AC.]

STATEMENT OF BASIS

JEA
Northside Generating Station and St. Johns River Power Park (NGS/SJRPP)
Separations Technology, LLC (ST) Facility

Title V Air Operation Permit Revision
Draft/Proposed Permit No. 0310045-028-AV

APPLICANT

The applicant for this project is JEA. The applicant's responsible official and mailing address are: Mr. James M. Chansler, P.E., D.P.A., Chief Operating Officer, JEA, NGS/SJRPP/ST, 21 West Church Street Jacksonville, Florida 32202.

FACILITY DESCRIPTION

The applicant operates the NGS/SJRPP/ST facility, which is located at 4377 Heckscher Drive, Jacksonville.

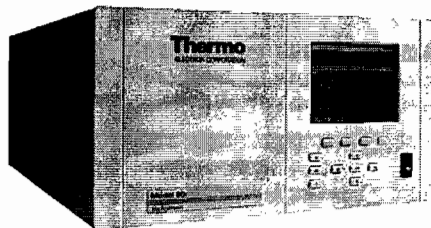
The existing facility consists of the Northside Generating Station (NGS) and St. Johns River Power Park (SJRPP) facilities and the Separations Technology, LLC (ST) fly ash processing system.

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

PROJECT DESCRIPTION

The purpose of this permitting project is for the revision of the existing Title V air operation permit for the above referenced facility and for the concurrent processing of an air construction (AC) permit. More details on the revision are shown below under Project Review. The AC permit is for the combustion of landfill gas in the Circulating Fluidized Bed Boiler (CFB) Nos. 1 and 2 at the Northside Generating Station.

JEA now operates two Thermo Fisher Scientific mercury (Hg) CEMS on the CFB Nos. 1 and 2 at the North Generating Station. The two Hg CEMS on the CFB Nos. 1 and 2 were certified on June 23, 2009 and March 24, 2009, respectively. A picture of a typical similar installed Model 80i Hg CEMS is shown below.



http://www.thermo.com/eThermo/CMA/PDFs/Product/productPDF_2270.pdf

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Revision/Air Construction Permit received in hard copy on August 10, 2009.

Additional Information Request dated and sent via e-mail on September 23, 2009.

Additional Information Response received on January 26, 2010.

Additional Information Requests dated and sent via e-mail on February 10 & 17, 2010.

Additional Information Response received on February 25, 2010.

Application for a Title V Air Operation Permit Revision dated September 24, 2010 received via hard copy on September 27, 2010; Request to Merge Processing into Project No. 0310045-028-AV.

Draft Air Construction Permit No. 0310045-027-AC clerked (issued) on Month day, 2010.

Draft/Proposed Title V Air Operation Permit Revision posted onto web site on Month day, 2010.

STATEMENT OF BASIS

Public Notice published on Month day, 2010.

Notification to U.S. EPA Region 4 of Publication of Public Notice on Month day, 2010.

PRIMARY REGULATORY REQUIREMENTS

Title III: This facility is a major source of hazardous air pollutants (HAP), based on the Title V air operation permit renewal application received July 3, 2008.

Title IV: This facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: This facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: This facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: This facility operates units subject to the Standards of Performance for New Stationary Sources (NSPS) of 40 Code of Federal Regulations (CFR) 60.

CAIR: This facility operates units subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

Siting: Several of the emissions units were originally certified pursuant to the power plant siting provisions of Chapter 62-17, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) does apply to units at this facility. CAM applies to particulate matter emissions from the NGS Circulating Fluidized Bed Boiler Nos. 2 & 1 (Emission Unit ID Nos. -026 & -027) and SJRPP Boiler Nos. 1 & 2 (Emission Unit ID Nos. -016 & -017).

PROJECT REVIEW

This project review summarizes the changes made in this Title V air operation permit revision.

The changes made in the draft/proposed permit documents are specifically shown as follows: deletions are noted in strike through and additions are noted in double underline. The changes will not be shown in the final permit documents.

Permit

- Incorporated the applicable specific conditions from previously issued air construction permit Nos. 0310045-017-AC/-025-AC, Installation of Selective Catalytic Reduction (SCR) systems and ammonia injection systems on the existing SJRPP Boiler Nos. 1 and 2. Affected Emission Unit ID Nos. -016 and -017, Subsection III.C. of the permit.
- Incorporated an alternate sampling procedure, DEP Order No. 09-I-AP, issued on 06/22/2009, allowing EPA Method CTM-013 in lieu of EPA Method 8 in determining SAM emissions from the existing SJRPP Boiler Nos. 1 and 2. Affected Emission Unit ID Nos. -016 and -017, Subsection III.C. of the permit.
- Incorporated the applicable specific conditions from previously issued air construction permit No. 0310045-024-AC/PSD-FL-010H, Installation of Natural Gas Igniters on the existing SJRPP Boiler Nos. 1 and 2. Affected Emission Unit ID Nos. -016 and -017, Subsection III.C. of the permit.
- Incorporated the applicable specific conditions from previously issued air construction permit No. 0310045-029-AC/PSD-FL-010I, Continuous Use of Natural Gas in the existing SJRPP Boiler Nos. 1 and 2. Affected Emission Unit ID Nos. -016 and -017, Subsection III.C. of the permit.
- Incorporated the applicable specific conditions from previously issued air construction permit No. 0310045-022-AC/PSD-FL-265E, Spray Dryer Absorber Maintenance/Repair at the NGS for the CFB Boiler Nos. 1 and 2. Affected Emission Unit ID Nos. -027 and -026, Subsection III.G. of the permit.

STATEMENT OF BASIS

- Incorporated the applicable specific conditions from the concurrently processed air construction permit No. 0310045-027-AC, Combustion of Landfill Gas in the CFB Boiler Nos. 1 and 2 at the NGS location. Affected Emission Unit ID Nos. -027 and -026, Subsection III.G. of the permit.
- Revised the Title V air operation permit by removing all references to the Table 6C for emission points which were not constructed. In the recently renewed permit, the Table 6C had been associated by the Department with the SJRPP Fuel and Limestone Handling and Storage Operations (Emission Unit ID No. -023) and the NGS Materials Handling & Storage Operations (Emission Unit ID No. -028). The Table 6C insertions had been made as shown in the proposed Permit No. 0310045-020-AV. Those changes are removed in this permitting action. Affected Emission Unit ID Nos. -023 and -028, Subsections III.D. and H. of the permit and Section V. Appendices.

CONCLUSION

This project revises Title V air operation permit No. 0310045-020-AV, which was effective January 1, 2009. This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 62-213 and 62-214, Florida Administrative Code (F.A.C.). In accordance with the terms and conditions of this permit, the above named permittee is hereby authorized to operate the facility as shown on the application and approved drawings, plans, and other documents, on file with the permitting authority.



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Mimi A. Drew
Secretary

Electronic Mail – Received Receipt Requested

Mr. James M. Chansler, P.E., D.P.A.
Chief Operating Officer
JEA
21 West Church Street
Jacksonville, Florida 32202

Re: Draft Air Construction Permit No. 0310045-027-AC and
Draft/Proposed Title V Air Operation Permit Revision No. 0310045-028-AV
NGS/SJRPP/ST Facility

Dear Mr. Chansler:

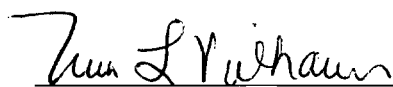
The Department issued (clerked) a “Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit Revision” on April 27, 2010 to revise the Title V air operation permit No. 0310045-020-AV. The project number to revise that permit is 0310045-028-AV. The Department hereby withdraws the “Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit Revision” clerked on April 27, 2010 and replaces it with the enclosed permits.

Enclosed is the draft/proposed permit package to issue an air construction permit and to revise the Title V air operation permit for the NGS/SJRPP/ST Facility. This facility is located in Duval County at 4377 Heckshire Drive, Jacksonville, Florida. The permit package includes the following documents:

- The Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit Revision provides important information regarding: the Permitting Authority’s intent to issue air permits for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority’s intent to issue air permits; the procedures for submitting comments on the draft/proposed permits; the process for filing a petition for an administrative hearing; and the availability of mediation.
- The Public Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit Revision is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The Public Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit Revision must be published as soon as possible and the original proof of publication affidavit must be provided to the Department within seven days of the date of publication.
- The Technical Evaluation and Preliminary Determination, which establishes the basis for approving the air construction permit.
- The Statement of Basis, which summarizes the facility, the equipment, the primary rule applicability, and the changes included in this Title V air operation permit revision.
- The draft construction permit and the draft/proposed Title V air operation permit revision, which includes the specific permit conditions that regulate the emissions units covered by the proposed project.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Mr. Jonathan K. Holtom, P.E., Program Administrator, Title V Section, at the above letterhead address. If you have any questions, please contact Mr. Scott M. Sheplak, P.E., by telephone at 850/921-9532 or by email at scott.sheplak@dep.state.fl.us.

Sincerely,


Trina L. Vielhauer, Chief
Bureau of Air Regulation

10/8/10
Date

TLV/jkh/sms
Enclosures

“More Protection, Less Process”
www.dep.state.fl.us

**WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND TITLE V AIR
OPERATION PERMIT REVISION**

In the Matter of an

Application for Air Construction Permit and Title V Air Operation Permit Revision by:

JEA
21 West Church Street
Jacksonville, Florida 32202

Responsible Official:

Mr. James M. Chansler, P.E., D.P.A.
Chief Operating Officer

Draft/Proposed Title V Permit Revision No. 0310045-028
Draft Air Construction Permit No. 0310045-027-AC
Facility ID No. 0310045
NGS/SJRPP/ST Facility
Duval County, Florida

Facility Location: JEA operates the existing NGS/SJRPP/ST Facility, which is located in Duval County at 4377 Heckshire Drive, Jacksonville, Florida.

Project: The purpose of this project is to issue an air construction permit and to revise the Title V air operation permit No. 0310045-020-AV. The air construction permit authorizes the combustion of landfill gas in the Circulating Fluidized Bed Boiler (CFB) Nos. 1 and 2 at the Northside Generating Station. The Title V air operation permit revision incorporates applicable specific terms and conditions from previously issued air construction permits. Details of the project are provided in the application and the enclosed Statement of Basis.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work.

Applications for Title V air operation permits for facilities that contain Acid Rain units are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213 and 62-214 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and a Title V air operation permit is required to operate the facility. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the Technical Evaluation and Preliminary Determination, the draft/proposed permits, the Statement of Basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the draft permits by visiting the following website: <http://www.dep.state.fl.us/air/emission/apds/default.asp> and entering the permit number shown above. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

Notice of Intent to Issue Permits: This notice replaces the "Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit Revision" issued (clerked) on April 27, 2010.

The Permitting Authority gives notice of its intent to issue an air construction permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final permit in accordance with the conditions of the proposed draft air construction permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

**WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND TITLE V AIR
OPERATION PERMIT REVISION**

The Permitting Authority gives notice of its intent to issue a revised Title V air operation permit to the applicant for the project described above. The applicant has provided reasonable assurance that continued operation of the existing equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final permit revision in accordance with the conditions of the draft/proposed permit revision unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permits (Public Notice). The Public 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 by this project. The newspaper used must meet 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 above address or phone number. Pursuant to Rule 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the draft air construction permit for a period of 14 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. If written comments received result in a significant change to the draft air construction permit modification, the Permitting Authority shall revise the draft air construction permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

The Permitting Authority will accept written comments concerning the draft/proposed Title V air operation permit revision for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (FAW). If a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received written comments or comments received at a public meeting result in a significant change to the draft/proposed permit, the Permitting Authority shall issue a revised draft/proposed permit revision and require, if applicable, another Public Notice. All comments filed will be made available for public inspection. For additional information, contact the Permitting Authority at the above address or phone number.

Petitions: 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 with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within 14 days of receipt of this Written Notice of Intent to Issue Air Permit, 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 14 days of receipt of that notice, regardless of the

**WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND TITLE V AIR
OPERATION PERMIT REVISION**

date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) 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 when and how each petitioner received notice of the agency action or proposed decision; (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, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. 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 Written Notice of Intent to Issue Air Permit. 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: Mediation is not available in this proceeding.

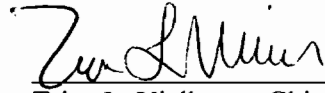
EPA Review: EPA has agreed to treat the draft/proposed Title V air operation permit revision as a proposed Title V air operation permit revision and to perform its 45-day review provided by the law and regulations concurrently with the public comment period. Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that result in a different decision or significant change of terms or conditions. The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following website address:
<http://www.epa.gov/region4/air/permits/Florida.htm>.

Objections: 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 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30-day public comment period provided in the Public 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

**WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND TITLE V AIR
OPERATION PERMIT REVISION**

must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.
For more information regarding EPA review and objections, visit EPA's Region 4 web site at
<http://www.epa.gov/region4/air/permits/Florida.htm>.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief
Bureau of Air Regulation

10/8/10
Date

**WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND TITLE V AIR
OPERATION PERMIT REVISION**

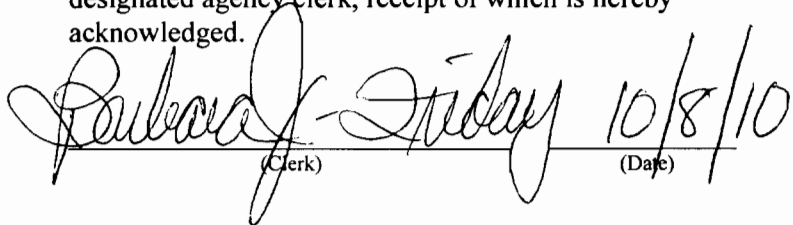
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue an Air Construction Permit and a Title V Air Operation Permit Revision (including the Public Notice, the Statement of Basis, the Draft/Proposed Title V Air Operation Permit Revision, the Technical Evaluation and Preliminary Determination, and the Draft Air Construction Permit), or a link to these documents available electronically on a publicly accessible server, was sent by electronic mail with received receipt requested before the close of business on 10/8/10 to the persons listed below.

- Mr. James M. Chansler, P.E., D.P.A., Chief Operating Officer, JEA: chanjm@jea.com
- Mr. N. Bert Gianazza, P.E., JEA: giannb@jea.com
- Mr. David A. Buff, P.E., Golder Associates, Inc.: dbuff@golder.com
- Mr. Kennard F. Kosky, P.E., Golder Associates, Inc.: ken_kosky@golder.com
- Mr. Michael Halpin, P.E., DEP Siting Office: michael.halpin@dep.state.fl.us
- Mr. Chris Kirts, P.E., DEP NED: christopher.kirts@dep.state.fl.us
- Mr. Richard Robinson, P.E., ERMD/EQD/AQB: robinson@coj.net
- Ms. Heather Abrams, U.S. EPA Region 4: abrams.heather@epa.gov
- Ms. Katy R. Forney, U.S. EPA Region 4: forney.kathleen@epa.gov
- Ms. Barbara Friday, DEP BAR: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)
- Ms. Victoria Gibson, DEP BAR: victoria.gibson@dep.state.fl.us (for reading file)

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) 10/8/10 (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND TITLE V AIR
OPERATION PERMIT REVISION**

Florida Department of Environmental Protection
Division of Air Resource Management, Bureau of Air Regulation
Draft Air Construction Permit No. 0310045-027-AC
Draft/Proposed Title V Air Operation Permit Revision No. 0310045-028-AV
JEA's Northside Generating Station and St. Johns River Power Park (NGS/SJRPP)
Separation Technologies LLC's Separation Technologies, Inc. (STI) Facility
Duval County, Florida

Applicant: The applicant for this project is JEA. The applicant's responsible official and mailing address are: Mr. James M. Chansler, P.E., D.P.A., Chief Operating Officer, JEA, NGS/SJRPP/STI, 21 West Church Street, Jacksonville, Florida 32202.

Facility Location: The applicant operates the existing NGS/SJRPP/ST Facility, which is located in Duval County at 4377 Heckshire Drive, Jacksonville, Florida.

Project: The applicant applied on August 10, 2009, to the Department for an air construction permit and a revision of Title V air operation permit No. 0310045-020-AV. The air construction permit authorizes the combustion of landfill gas in the Circulating Fluidized Bed Boiler (CFB) Nos. 1 and 2 at the Northside Generating Station. The Title V air operation permit revision incorporates applicable specific terms and conditions from previously issued air construction permits. The existing facility consists of JEA's Northside Generating Station and St. Johns River Power Park facilities and the Separation Technologies LLC's Separation Technologies, Inc. fly ash processing system.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project.

Applications for Title V air operation permits for facilities that contain Acid Rain units are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213 and 62-214 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and a Title V air operation permit is required to operate the facility. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the draft air construction permit, the draft/proposed air operation permit revision, the Statement of Basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the draft air construction permit and draft/proposed air operation permit revision by visiting the following website: <http://www.dep.state.fl.us/air/emission/apds/default.asp> and entering the permit numbers shown above. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

Notice of Intent to Issue Permits: The Permitting Authority gives notice of its intent to issue an air construction permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final permit in accordance with the conditions of the draft air construction permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or

(Public Notice to be Published in the Newspaper)

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND TITLE V AIR
OPERATION PERMIT REVISION**

unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

The Permitting Authority gives notice of its intent to issue a revised Title V air operation permit to the applicant for the project described above. The applicant has provided reasonable assurance that continued operation of the existing equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final permit in accordance with the conditions of the draft/proposed permit revision unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the draft air construction permit for a period of 14 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. If written comments received result in a significant change to the draft air construction permit, the Permitting Authority shall revise the draft air construction permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

The Permitting Authority will accept written comments concerning the draft/proposed Title V air operation permit revision for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (FAW). If a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received written comments or comments received at a public meeting result in a significant change to the draft/proposed permit revision, the Permitting Authority shall issue a revised draft/proposed permit revision and require, if applicable, another Public Notice. All comments filed will be made available for public inspection. For additional information, contact the Permitting Authority at the above address or phone number.

Petitions: 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 with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within 14 days of publication of the Public Notice or receipt of a written notice, 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 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) 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 rights will be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the

(Public Notice to be Published in the Newspaper)

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND TITLE V AIR
OPERATION PERMIT REVISION**

petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. 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 Public Notice of Intent to Issue Air Permit. 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: Mediation is not available for this proceeding.

EPA Review: EPA has agreed to treat the draft/proposed Title V air operation permit revision as a proposed Title V air operation permit revision and to perform its 45-day review provided by the law and regulations concurrently with the public comment period. Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that results in a different decision or significant change of terms or conditions. The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following website address:
<http://www.epa.gov/region4/air/permits/Florida.htm>.

Objections: 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 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30-day public comment period provided in the Public 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. For more information regarding EPA review and objections, visit EPA's Region 4 web site at <http://www.epa.gov/region4/air/permits/Florida.htm>.

JEA
Northside Generating Station and St. Johns River Power Park (NGS/SJRPP)
Separations Technology, LLC (ST) Facility

Facility ID No. 0310045
Duval County

Title V Air Operation Permit Revision

Draft/Proposed Permit No. 0310045-028-AV
(1st Revision of Title V Air Operation Permit No. 0310045-020-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: 850/921-9533

Compliance Authority

City of Jacksonville
Environmental and Compliance Department
Environmental Quality Division
Air Quality Branch

Jake Godbold City Hall Annex
407 North Laura Street, Third Floor
Jacksonville, Florida 32202

Telephone: 904/255-7201
Fax: 904/588-0518

September 30, 2010

Title V Air Operation Permit Revision
Permit No. 0310045-028-AV

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Appendix ASP, ASP Number 97-B-01 (With Scrivener’s Order Dated July 2, 1997).

Appendix CAM, Compliance Assurance Monitoring Plan.

Appendix Hg CEMS - Quality Assurance Plan.

Appendix I, List of Insignificant Emissions Units and/or Activities.

Appendix 40 CFR 60 Subpart A - General Provisions.

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Appendix 40 CFR 60 Subpart Y.

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

Appendix O&M, Operation and Maintenance Plan under RACT for PM.

Appendix Q: Protocol for Startup and Shutdown.

Appendix RR, Facility-wide Reporting Requirements.

Appendix SJRPP: Table 6 (Revised): Parts A and, B and C.

Appendix TR, Facility-wide Testing Requirements.

Appendix TV, Title V General Conditions.

Appendix U, List of Unregulated Emissions Units and/or Activities.

Referenced Attachments. At End

Table H, Permit History.

Draft/Proposed

PERMITTEE:

JEA
21 West Church Street
Jacksonville, Florida 32202

Permit No. 0310045-028-AV
NGS/SJRPP/ST Facility
Facility ID No. 0310045
Title V Air Operation Permit Revision

The purpose of this permit is for the revision of the Title V Air Operation Permit for the above referenced facility and for the concurrent processing of an air construction (AC) permit. The existing NGS/SJRPP/ST facility is located at 4377 Heckscher Drive, Jacksonville, in Duval County. UTM Coordinates are: Zone 17, 446.90 km East and 3359.150 km North. Latitude is: 30° 21' 52" North; and, Longitude is: 81° 37' 25" West.

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

~~0310045-020-AV~~ Effective Date: January 1, 2009
~~0310045-028-AV Revision~~ Effective Date: ~~to be~~
~~entered~~

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

(Draft/Proposed)

Joseph Kahn, Director
Division of Air Resource Management

JK/tlv/jkh/sms

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

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

NGS and SJRPP:

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

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

ST:

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

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

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

SECTION I. FACILITY INFORMATION.

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

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

Subsection B. Summary of Emissions Units.

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

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

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

Subsection C. Applicable Regulations.

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

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

SECTION I. FACILITY INFORMATION.

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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Units -016 & -017

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

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

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

SCR and Ammonia Injection Systems

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

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

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

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

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

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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Units -016 & -017

Essential Potential to Emit (PTE) Parameters

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

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

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

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

C.3. Methods of Operation.

- a. The only fuels allowed to be fired are coal, a coal blend with a maximum of 30 percent petroleum coke (by weight), new No. 2 distillate fuel oil, and "on-specification" used oil.
- b. The new No. 2 fuel oil shall be used for startup and low load operation.
- c. The maximum weight of petroleum coke burned shall not exceed 150,000 pounds per hour, based on a 30-day rolling average using production information for the amount of coal and petcoke metered from the coal storage bins to the boilers.
- d. "On-specification" used oil will be generally fired as a blend with the No. 2 fuel oil. "On-specification" used oil containing PCBs above the detectable level of 2 ppm shall not be used for startup or shutdown. "On-specification" used oil containing PCBs between 2 and 49 ppm can only be fired when the emissions unit is at normal operating temperatures.
- e. Either coal, a blend of coal and petroleum coke, or fuel oil shall not be fired in the emissions units unless both electrostatic precipitator and limestone scrubber are operating properly except as provided under 40 CFR 60, Subpart Da.
- f. No fraction of the flue gas shall be allowed to bypass the limestone flue gas desulfurization (FGD) system to reheat the gasses exiting from the FGD system, if the bypass will cause overall SO₂ removal efficiency less than 90 percent or as otherwise provided in 40 CFR 60, Subpart Da. The percentage and amount of flue gas bypassing the FGD system shall be documented.

g. If at any time the permittee determines that it is appropriate to use supplemental fuel during periods of startup, shutdown, flame stabilization and low load operation, then No. 2 fuel oil and/or natural gas shall be used for the pulverized coal and petroleum coke-fired Boiler No. 1 or Boiler No. 2.

h. Natural Gas Firing²: The permittee is authorized to continuously fire natural gas in SJRPP Boiler No. 1 and 2 during normal operations. For each unit, there are 28 natural gas burners rated at 25 MMBtu/hour per burner. The maximum total heat input to each unit from firing natural gas is 700 MMBtu/hour. {Permitting Note: Natural gas firing shall only achieve approximately 11% of full load operation. Other authorized fuels shall be co-fired with natural gas to achieve full load operation.}

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

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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Units -016 & -017

Air Pollution Control Technologies and Measures

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

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions Nos. C.~~59~~, C.~~610~~, C.~~913~~ thru C.~~1216~~, and C.~~1418~~ thru C.~~1620~~, are based on the specified averaging time of the applicable test method.

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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Units -016 & -017

d. Particulate matter emissions shall be controlled with an electrostatic precipitator. [40 CFR 60.42a(a)(1), (2) & (3); PSD-FL-010 and BACT; PA 81-13; PSD-FL-010(A & B); and, ¹PSD-FL-010C (clerked July 29, 1999), Table 6 (Revised) - Part A.]

C.11. Ash Content.

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

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

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

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

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

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

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

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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Units -016 & -017

Performance for New Stationary Sources (NSPS) codified in 40 CFR 60, Subpart Da, except as noted above.

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

- C.15. Sulfur Dioxide - Liquid Fuel Only.** No owner or operator subject to the provisions of 40 CFR 60, Subpart Da, shall cause to be discharged into the atmosphere from any affected facility which combusts liquid fuel any gases which contain sulfur dioxide in excess of:
- 340 ng/J (0.80 lb/million Btu) heat input and 90 percent reduction, or
 - 100 percent of the potential combustion concentration (zero percent reduction), when emissions are less than 86 ng/J (0.20 lb/million Btu) heat input.
- [40 CFR 60.43a(b)(1) & (2)]

- C.16. Sulfur Dioxide.** Compliance with the emission limitation and percent reduction requirements are both determined on a 30-day rolling average basis. [40 CFR 60.43a(g); PSD-FL-010; and, PA 81-13]

- C.17. Sulfur Dioxide - Sulfur Content.**

- The maximum coal sulfur content shall not exceed 4.0 percent, by weight.
- The maximum sulfur content of the petroleum coke - coal blend shall not exceed 4 percent, by weight.
- The maximum sulfur content of the No. 2 fuel oil is 0.76%, by weight.

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

- C.18. Sulfur Dioxide.** When fuel oil and coal (or a blend of coal and petroleum coke) are combusted simultaneously, the applicable standard is determined by proration using the following formulas:

- If emissions of SO₂ to the atmosphere are greater than 260 ng/J (0.60 lb/MMBtu) heat input:

$$PS_{SO_2} = (340X + 520Y)/100 \text{ and}$$

$$\%P_S = 10$$

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

$$PS_{SO_2} = (340X + 520Y)/100 \text{ and}$$

$$\%P_S = (10X + 30Y)/100$$

where:

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

%P_S = percentage of potential SO₂ emissions allowed.

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

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

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

- C.19. Nitrogen Oxides.** No owner or operator subject to the provisions of 40 CFR 60, Subpart Da, shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides in excess of the following emission limits, based on a 30-day rolling average.

- NO_x emissions limits.

(1) Coal or coal-petroleum coke blend: 0.60 lb/million Btu (260 ng/J) heat input and 3,686 lb/hour¹;

(2) Fuel oil: 130 ng/J (0.30 lb/million Btu) heat input.

- NO_x reduction requirement.

(1) Solid fuels: 65 percent reduction of potential combustion concentration;

(2) Liquid fuels: 30 percent reduction of potential combustion concentration.

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[40 CFR 60.44a(a)(1) & (2); and, ¹PSD-FL-010C (clerked July 29, 1999), Table 6 (Revised) - Part A.]

C.19.2. Nitrogen Oxides (NO_x). No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility (emissions unit) any gases that contain NO_x (expressed as NO₂) in excess of the following emission limit, based on a 30-day rolling average basis, and NO_x reduction requirement:

- (1) 0.20 lb/million Btu [40 CFR 60.44Da(a)(1)], and
 - (2) 25 percent reduction [40 CFR 60.44Da(a)(2)]. Compliance with the NO_x emission limitation under 40 CFR 60.44Da(a)(1) constitutes compliance with the percent reduction requirements under §60.44Da(a)(2). [40 CFR 60.48Da(b)]
- [0310045-029-AC/PSD-FL-010I]

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

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

where:

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

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

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

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

C.20.2. Nitrogen Oxides (NO_x). When two or more fuels are combusted simultaneously, the applicable standard is determined by proration using the following formula:

$$E_{NOX} = (0.20w + 0.30x + 0.60z)/100$$

Where:

E_{NOX} = Applicable standard for NO_x when multiple fuels are combusted simultaneously (lb/MMBtu of heat input);

w = Percentage of total heat input derived from the combustion of fuels subject to the standard of 0.20 lb/MMBtu of heat input for authorized gaseous fuels;

x = Percentage of total heat input derived from the combustion of fuels subject to the standard of 0.30 lb/MMBtu of heat input for authorized liquid fuels;

z = Percentage of total heat input derived from the combustion of fuels subject to the standard of 0.60 lb/MMBtu of heat input for authorized bituminous coal or a blend of bituminous coal with petcoke;

[40 CFR 60.44Da(c)]

[0310045-029-AC/PSD-FL-010I]

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

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

CONSTITUENT/PROPERTY	ALLOWABLE LEVEL
Arsenic	5 ppm maximum

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Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash point	100 degrees F minimum

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

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

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

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

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

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

- f. *Recordkeeping Requirements.* The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department:

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- (1) The gallons of on-specification used oil placed into inventory to be burned and the gallons of on-specification used oil burned each month.
- (2) Results of the analyses of each deposit of used oil, as required by the above conditions.
- (3) Other information, besides testing, used to make a claim that the used oil meets the requirements of on-specification used oil or that the used oil contains less than 50 ppm of PCBs.

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

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

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

Excess Emissions

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

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

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

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

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

Monitoring of Operations

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

Compliance Provisions

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

- C.26. Compliance With NO_x.** 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)]

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

Continuous Monitoring Requirements

- C.32. Opacity.** The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the opacity of emissions discharges to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Administrator). [40 CFR 60.47a(a)]
- C.33. Sulfur Dioxide.** The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring sulfur dioxide emissions as follows: Sulfur dioxide emissions are monitored at both the inlet and outlet of the sulfur dioxide control device. [40 CFR 60.47a(b)(1)]

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

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

- C.41. Reference Method Alternatives.** The owner or operator may use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.47a.
- a. For Method 6, Method 6A or 6B (whenever Methods 6 and 3 or 3B data are used) or 6C may be used. Each Method 6B sample obtained over 24 hours represents 24 1-hour averages. If Method 6A or 6B is used under 40 CFR 60.47a(i), the conditions under 40 CFR 60.46(d)(1) apply; these conditions do not apply under 40 CFR 60.47a(h).
 - b. For Method 7, Method 7A, 7C, 7D, or 7E may be used. If Method 7C, 7D, or 7E is used, the sampling time is 1 hour.
 - c. For Method 3, Method 3A or 3B may be used if the sampling time is 1 hour.
 - d. For Method 3B, Method 3A may be used.
[40 CFR 60.47a(j)]

Test Methods and Procedures

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

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

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

The above methods are described in Chapter 62-297, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.; ¹DEP Order No. 09-1-AP, issued 06/22/09; and, ²Permit No. 0310045-017-AC, specific condition 3.1].]

C.43. Annual Compliance Tests. Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), this emissions unit shall be tested to demonstrate compliance with the emission limitations and standards for particulate matter, nitrogen oxides, sulfur dioxide, and visible emissions. The NO_x and SO₂ RATA test data may be used to demonstrate compliance with the annual test requirement, provided the testing requirements (notification, procedures & reporting) of Chapter 62-297, F.A.C. are met. [Rule 62-297.310(7), F.A.C.; and, PA 81-13]

C.44. Annual Tests - Ammonia Injection for SAM Emissions Control and SAM Emission Rates. During each federal fiscal year, the permittee shall conduct performance tests to determine the SAM emission rates and adjust the ammonia injection rates as necessary. At least six representative 1-hour test runs shall be conducted on either SJRPP Boiler Nos. 1 and 2. Annual performance tests shall be alternated between the boilers such that testing is conducted on a boiler at least twice during each 5-year period. Within 45 days following the last test run conducted, the permittee shall provide a report summarizing the emissions tests conducted, the results of the tests, the catalyst oxidation rate, how the automated control system was adjusted and the updated algorithm used for the automated control system or the updated series of related performance curves. [Rules 62-4.070(3) and 62-212.300(1)(e), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.9.]

C.45. Compliance Tests Prior To Renewal. Prior to permit renewal, compliance tests shall be performed for the following pollutants: VE, PM, SO₂ and NO_x. [Rule 62-297.310(7)(a)3., F.A.C.]

C.46. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

C.47. Required Test Methods. In conducting performance tests, the owner or operator shall use as reference methods and procedures the methods in Appendix A of 40 CFR 60 or the methods and procedures as specified in 40 CFR 60.48a, except as provided in 40 CFR 60.8(b). 40 CFR 60.8(f) does not apply to this section for SO₂ and NO_x. Acceptable alternative methods are given in 40 CFR 60.48a(e). [40 CFR 60.48a(a)]

C.48. Particulate Matter. The owner or operator shall determine compliance with the particulate matter standard as follows

- a. The dry basis F factor (O₂) procedures in Method 19 shall be used to compute the emission rate of particulate matter.
- b. For the particulate matter concentration, Method 5 shall be used at affected facilities without wet FGD systems and Method 5B shall be used after wet FGD systems.
 - (1) The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of no greater than 160 ± 14 °C (320 ± 25 °F).
 - (2) For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O₂ concentration. The O₂ sample shall be

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

c. Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

[40 CFR 60.48a(b)(1), (2) & (3)]

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

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

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

where:

%P_S = percent of potential SO₂ emissions, percent.

%R_F = percent reduction from fuel pretreatment, percent.

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

b. The procedures in Method 19 may be used to determine percent reduction (%R_F) of sulfur by such processes as fuel pretreatment (physical coal cleaning, hydrodesulfurization of fuel oil, etc.), coal pulverizers, and bottom and fly ash interactions. This determination is optional.

c. The procedures in Method 19 shall be used to determine the percent SO₂ reduction (%R_S) of any SO₂ control system. Alternatively, a combination of an "as fired" fuel monitor and emission rates measured after the control system, following the procedures in Method 19, may be used if the percent reduction is calculated using the average emission rate from the SO₂ control device and the average SO₂ input rate from the "as fired" fuel analysis for 30 consecutive boiler operating days.

d. The appropriate procedures in Method 19 shall be used to determine the emission rate.

e. The continuous monitoring system in 40 CFR 60.47a(b) and (d) shall be used to determine the concentrations of SO₂ and CO₂ or O₂.

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

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

a. The appropriate procedures in Method 19 shall be used to determine the emission rate of NO_x.

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

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

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

a. For Method 5 or 5B, Method 17 may be used at facilities with or without wet FGD systems if the stack temperature at the sampling location does not exceed the average temperature of 160 °C (320 °F). Procedures 2.1 and 2.3 of Method 5B in 40 CFR 60, Appendix A may be used in Method 17 only if it is used after wet FGD systems. Method 17 shall not be used after wet FGD systems if the effluent is saturated or laden with water droplets.

b. The F_C factor (CO₂) procedures in Method 19 may be used to compute the emission rate of particulate matter under the stipulations of 40 CFR 60.46(d)(1). The CO₂ shall be determined in the same manner as the O₂ concentration.

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

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- C.52. Used Oil Compliance Requirements.** 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.
- [Rules 62-4.070 and 62-213.440(1)(b)2.b., F.A.C.; Part V, Rule 2.501, JEPB; and, 40 CFR 279]
- C.53.** If the permittee wants the CEMs RATA tests for SO₂ and NO_x to be considered as formal compliance tests, then the permittee must satisfy all of the requirements (i.e., prior notification, submittal requirements, etc.) of Rule 62-297.310, F.A.C. [Rules 62-297.310(7) and 62-213.440, F.A.C.]

Recordkeeping and Reporting Requirements

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

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

Report	Reporting Deadline(s)	Related Condition(s)
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	C.58. & C.6673.
Quarterly Excess Emissions, if requested by the ERMD-EQD	Every 3 months (quarter)	C.5964.
Stack monitoring, fuel usage and fuel analysis data	Every 3 months (quarter)	C.6469.

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

- C.55. Performance Test Data.** For sulfur dioxide, nitrogen oxides, and particulate matter emissions, the performance test data from the performance evaluation of the continuous monitors (including the transmissometer) are submitted to the Administrator. [40 CFR 60.49a(a)]
- C.56. SO₂ and NO_x Reporting.** For sulfur dioxide and nitrogen oxides the following information is reported to the Administrator for each 24-hour period.
- a. Calendar date.
 - b. The average sulfur dioxide and nitrogen oxides emission rates (ng/J or lb/million Btu) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standards; and, description of corrective actions taken.
 - c. Percent reduction of the potential combustion concentration of sulfur dioxide for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.
 - d. Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 18 hours of operation of the facility; justification for not obtaining sufficient data; and, description of corrective actions taken.
 - e. Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NO_x only), emergency conditions (SO₂ only),

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or other reasons, and justification for excluding data other than startup, shutdown, malfunction, or emergency conditions.

- f. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
- g. Identification of the times when hourly averages have been obtained based on manual sampling methods.
- h. Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.
- i. Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.

[40 CFR 60.49a(b)(1), (2), (3), (4), (5), (6), (7), (8) & (9)]

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

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

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

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

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

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

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

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

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

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- C.60. Missing CEMS Data.** For any periods for which opacity, sulfur dioxide or nitrogen oxides emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and the affected facility during periods of data unavailability are to be compared with operation of the control system and the affected facility before and following the period of data unavailability. [40 CFR 60.49a(f)]
- C.61. CEMS and Compliance Notification.** The owner or operator of the affected facility shall submit a signed statement indicating whether:
- The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified.
 - The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.
 - The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.
 - Compliance with the standards has or has not been achieved during the reporting period.
- [40 CFR 60.49a(g)(1), (2), (3) & (4)]
- C.62. Opacity Excess Emissions Reports.** For the purposes of the reports required under 40 CFR 60.7, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under 40 CFR 60.42a(b). Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Administrator each calendar quarter. [40 CFR 60.49a(h)]
- C.63. Quarterly Report Submission.** The owner or operator of an affected facility shall submit the written reports required under 40 CFR 60.49(a) and 40 CFR 60, Subpart A, to the Administrator for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. [40 CFR 60.49a(i)]
- C.64. Quarterly Excess Emissions Reports.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD. [Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]
- C.65. Used Oil Records.** Records shall be kept of each delivery of “on-specification” used oil with a statement of the origin of the used oil and the quantity delivered/stored for firing. In addition, monthly records shall be kept of the quantity of “on-specification” used oil fired in these emissions units; or, hourly if fired unblended. The above records shall be maintained in a form suitable for inspection, retained for a minimum of five years, and be made available upon request. [Rule 62-213.440(1)(b)2.b., F.A.C.; Part V, Rule 2.501, JEPB; and, 40 CFR 279.61 and 761.20(e)]
- C.66. Used Oil Reporting.** The permittee shall include in the “Annual Operating Report (AOR) for Air Pollutant Emitting Facility” a summary of the “on-specification” used oil analyses for the calendar year and a statement of the total quantity of “on-specification” used oil fired in Boilers Nos. 1 and 2 and the auxiliary boilers during the calendar year. [Rule 62-213.440(1)(b)2.b., F.A.C.; and, Part V, Rule 2.501, JEPB]
- C.67. Fuel Consumption Records.** The owner or operator shall maintain, for each emissions unit, a daily log of the amounts and types of fuels fired and copies of fuel analyses containing information on the sulfur and ash

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content, percent by weight, and heating values. [Rule 62-213.440, F.A.C.; Part V, Rule 2.501, JEPB; and, PSD-FL-010 and PA 81-13]

C.67.2. Natural Gas Firing Records. The permittee shall maintain sufficient records to document the firing of natural gas. [Permit No. 0310045-029-AC/PSD-FL-010I]

C.68. Reporting and Recordkeeping.

- a. Documentation verifying that the coal and petroleum coke fuel blends combusted in Boilers Nos. 1 and 2 have not exceeded the 30 percent maximum petroleum coke by weight limit shall be maintained and made available upon request by the Department or the ERMD-EQD. [Rule 62-213.440, F.A.C.; Part V, Rule 2.501, JEPB; 0310045-014-AC/PSD-FL-010F; and, PA81-13L]
- b. The permittee shall maintain and submit to the Department and ERMD-EQD on an annual basis for a period of five years from the date the emissions unit is co-fired with petroleum coke above 20%, by weight, information demonstrating in accordance with 40 CFR 52.21(b)(21)(v) and 40 CFR 52.21(b)(33) that the operational changes did not result in emissions increases of nitrogen oxides, carbon monoxide, sulfur dioxide, sulfuric acid mist, volatile organic compounds, and particulate matter. [0310045-014-AC/PSD-FL-010F; and, PA81-13L]

C.69. Reporting and Recordkeeping. Stack monitoring, fuel usage and fuel analysis data shall be reported to the ERMD-EQD on a quarterly basis in accordance with 40 CFR 60.7. [PA81-13]

C.70. Operational Data - SCR and Ammonia Injection Systems. For each unit, the permittee shall continuously monitor and record the ammonia injection rate for SAM emissions control and the hours of SCR bypass. [Rule 62-4.070(3), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.13.]

C.71. Test Reports - SCR and Ammonia Injection Systems. For each sulfuric acid mist test run, the test report shall indicate the ammonia injection rate for SAM emissions control, unit load, unit heat input rate, and total secondary power input to the electrostatic precipitator. [Rule 62-297.310(8), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.12.]

Miscellaneous

C.72. Stack Height. The height of each boiler's exhaust stack for SJRPP Boiler No. 1 and No. 2 shall not be less than 640 feet above grade. [PSD-FL-010 and PA81-13]

C.73. NSPS Requirements - Subpart A. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
40 CFR 60.7, Notification and Recordkeeping
40 CFR 60.8, Performance Tests
40 CFR 60.11, Compliance with Standards and Maintenance Requirements
40 CFR 60.12, Circumvention
40 CFR 60.13, Monitoring Requirements
40 CFR 60.19, General Notification and Reporting requirements,
which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

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C.74. NSPS Requirements - Subpart Da. Except as otherwise provided in this permit, the combustion turbine shall comply with all applicable provisions of 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted by reference in Rule 62-204.800(8)(b)2., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.47a. These emissions units shall comply with **Appendix 40 CFR 60 Subpart Da** included with this permit. [Rule 62-204.800(8)(b)2., F.A.C.]

C.75. Reference Method Alternatives. The owner or operator may use the following as alternatives to the reference methods and procedures in 40 CFR 60.46 or in other sections as specified: The emission rate (E) of particulate matter, SO₂ and NO_x may be determined by using the F_c factor, provided that the following procedure is used (see Specific Condition C.43.):

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

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

where:

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

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

% CO₂ = carbon dioxide concentration, percent dry basis.

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

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

(1) When F_o is less than 0.97 F_{oa}, then E shall be increased by that proportion under 0.97 F_{oa}, e.g., if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard.

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

(3) When F_o is greater than 1.03 F_{oa} and when \bar{d} is positive, then E shall be decreased by that proportion over 1.03 F_{oa}, e.g., if F_o is 1.05 F_{oa}, E shall be decreased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

[40 CFR 60.46(d)(1)]

Source Obligation - SCR and Ammonia Injection Systems

C.76. Source Obligation - SCR and Ammonia Injection Systems. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by increasing its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction has not yet commenced on the source or modification. [Rule 62-212.400(12)(c), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 2.1.]

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- C.77. Annual PM/PM₁₀ and SAM Emissions Projections - SCR and Ammonia Injection Systems.** For the project under Permit No. 0310045-017-AC, the permittee projected that actual annual emissions due to the project would not exceed the PM/PM₁₀ annual emissions (322 + 14 = 336 tons/year); and would not exceed the SAM annual emissions (1,317 + 6 = 1,323 tons/year). The permittee shall demonstrate this by compiling and submitting the reports required by this permit. For the purposes of this reporting, all PM emissions are considered to be PM₁₀ emissions. [Rules 62-212.300 and 62-210.370, F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.5.]
- C.78. Ammonia Injection for SAM Emissions Control - SCR and Ammonia Injection Systems.** On an annual basis, the permittee must demonstrate that SAM emissions as a result of the project under Permit No. 0310045-017-AC do not exceed 1,323 tons per year. The permittee shall install and operate the ammonia injection system at a frequency and injection rate for SAM control to satisfy this requirement. An automated control system is used to adjust the ammonia flow rate for the given set of operating conditions based on the most recent performance test results. [Rules 62-4.070(3) and 62-212.300(1)(e), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.6.]
- C.79. Annual PM/PM₁₀ and SAM Emissions Reports - SCR and Ammonia Injection Systems.** In accordance with Rule 62-212.300(1)(e), F.A.C., the permittee shall comply with the following monitoring, reporting and recordkeeping provisions:
- The permittee shall monitor the PM/PM₁₀ and SAM emissions using the most reliable information available. On a calendar year basis, the permittee shall calculate and maintain a record of the annual emissions (tons per year) for a period of 5 years after completing construction on each unit's control system. *{Permitting note: The control system on SJRPP Boiler No. 1 became operational on July 16, 2009 and the control system on SJRPP Boiler No. 2 became operational on March 24, 2009, therefore, the 5-year period for both boilers is effective for calendar year (CY) 2010 emissions through CY 2014 emissions}.* Emissions shall be computed in accordance with Rule 62-210.370, F.A.C.
 - Within 60 days after each calendar year following completion of construction on each new control system, the permittee shall report to the Compliance Authority the annual emissions for each unit for the preceding calendar year. The report shall contain the following:
 - Name, address and telephone number of the owner or operator of the major stationary source;
 - Annual emissions as calculated pursuant to subparagraph 62-212.300(1)(e)1, F.A.C.;
 - If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and
 - Any other information that the owner or operator wishes to include in the report.
 - The information required to be documented and maintained shall be submitted to the Compliance Authority, where it will be available for review to the general public. [Rule 62-212.300(1)(e), F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.14.]
- C.80. PM/PM₁₀ and SAM Emissions Computation and Reporting - SCR and Ammonia Injection Systems.** The permittee shall compute PM/PM₁₀ and SAM emissions in accordance with the following requirements:
- For each year of reporting required, emissions shall be computed based on the controlled and uncontrolled emissions factors determined during the required annual emissions test. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
 - With appropriate supporting test data, multiple emission factors may be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.

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- c. The permittee shall compute emissions by multiplying the appropriate controlled or uncontrolled emission factor by the annual heat input rate for the period over which the emissions are computed. The uncontrolled emissions factor shall be used if the minimum ammonia injection rate established for the latest test is not met.
 - d. The permittee shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the Department of Compliance Authority for any regulatory purpose.
- [Rule 62-210.370, F.A.C.; and, Permit No. 0310045-017-AC, specific condition 3.15.]

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Subsection D. Emissions Unit -023

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

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

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Subsection D. Emissions Unit -023

-0231	Unit #1 Fuel Storage Bins with Fabric Filter (DC-4)
-0231	Unit #2 Fuel Storage Bins with Fabric Filter (DC-5)

The coal receiving, storage and transfer systems at the coal and petroleum coke storage yard support the operation of the two power boilers. Fugitive particulate matter emissions are generated from limestone handling and storage systems. The emissions units/points are as depicted in Table 6 (Revised) – Part B, SJRPP: Materials Handling and Storage Operations [PSD-FL-010, and as amended (was originally Tables 2 and 6)]. Particulate matter emissions and visible emissions are controlled using fabric filter systems, water sprays, wetting agents, and full enclosures or partial enclosures, covers and wind screens, where appropriate and required by permit. Visible emissions limits shall be used for compliance purposes.

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

Essential Potential to Emit (PTE) Parameters

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

Emission Limitations and Standards

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

- D.3.** The emissions unit/points are subject to the included Appendix SJRPP: Table 6 (Revised) - Part B and Part C, SJRPP: Materials Handling and Storage Operations. ~~Table 6 - Part C is provided herein to reflect the corresponding PM/PM₁₀ limits.~~

~~Table 6 - Part C~~

E.U. ID No.	Brief Description	PM/PM₁₀ (lb/hr)	Opacity (%) (VE Limit)
New Materials Handling Operations			
023c	Hopper Belt, Spillage Conveyors, and DC-1 Transfer Points - New Ship Unloader	0.13/0.06	10
023c	Shiphold - New	0.54/0.26	10
023d	Unloader Hopper and Spillage Collector Transfers - New Ship Unloader	0.28/0.13	10

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-023e	Transfer Tower D-1	0.04/0.02	5
-023f	SJRPP Reclaimer	0.52/0.24	10
-023g	New Blend Hopper	0.12/0.06	5
-023k	Enclosed Pile - Vehicle Activities	0.04/0.01	5
-023k	Enclosed Storage Pile - 3 Transfer Points	0.13/0.06	5
-023k	New Stacker	0.66/0.31	10
-023k	New Reclaim Transfer Tower	0.04/0.02	5

Note:

The E.U. ID Nos. added to this table were from Figures TE 2 & 3 in the Technical Evaluation & Preliminary Determination for PSD-FL-010(C):

PM₁₀ limits apply only to new and modified emission points.

[PSD-FL-010; BACT; PA 81-13; PSD-FL-010, amended 10/28/1986; PSD-FL-010C, clerked July 29, 1999; 0310045-012-AC/PSD-FL-010E; and, 0310045-015-AC/PSD-FL-010G]

D.4. Visible Emissions. Visible emissions (VE) shall be used for compliance purposes and shall not exceed the following opacity limits as established in Appendix SJRPP: Table 6 (Revised) - Part B, SJRPP: Materials Handling and Storage Operations:

E.U. ID No.	Brief Description	VE Limit (% opacity)
-023	SJRPP: Fuel and Limestone Handling and Storage Operations	

-023a	Rotary Railcar Dumper Building	10
-023b	Conveyor C-3 Tunnel Ventilation (6,400 cfm)	5
-023b	Conveyor C-3 Tunnel Ventilation (6,400 cfm)	5
-023b	Conveyor C-3 Tunnel Ventilation (21,600 cfm)	5
-023c	Shiphold Operations	10
-023d	Ship Unloader Hopper and Spillage Collector Transfers	10
-023d	Ship Unloader Hopper to Transfer CT-1, Spillage Conveyor	10
-023e	Fuel Transfer Building (DC-2)	10
-023e	Transfer Stations Nos. 1 thru 7	5
-023e	Transfer Point 9GC-04 to 9GC-05	5
-023f	Stacker/Reclaimer (Stacker Mode)	10
-023f	Stacker	10
-023f	Reclaimer	10
-023g	Emergency Reclaim Hoppers - Load Out	10
-023j	Limestone Truck Loadout & Transfer	10
-023k	Limestone Storage Pile #1 - Existing	10

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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-023k	Limestone Storage Pile #2 - Fuel Yard	10
-023k	Limestone Loadout	10
-023k	Coal Pile	10
-023k	Petroleum Coke Pile	10
-023l	Limestone Reclaim Hopper with Fabric Filter (3DC-01)	5
-023l	Limestone Silos with Fabric Filters (2: 1DC-01 and 2DC-01)	5
-023l	Quick Lime Silo with Fabric Filter (used for water treatment)	5
-023l	Fuel Handling Building with Fabric Filter (DC-3)	5
-023l	Unit #1 Fuel Storage Bins with Fabric Filter (DC-4)	5
-023l	Unit #2 Fuel Storage Bins with Fabric Filter (DC-5)	5

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

Excess Emissions

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

- D.5. Excess Emissions Allowed.** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]
- D.6. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Test Methods and Procedures

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

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

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

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

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

E.U. ID No.	Brief Description

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit -023

-0231	Limestone Reclaim Hopper with Fabric Filter (3DC-01)
-0231	Limestone Silos with Fabric Filters (2: 1DC-01 and 2DC-01)
-0231	Fuel Handling Building with Fabric Filter (DC-3)
-0231	Unit #1 Fuel Storage Bins with Fabric Filter (DC-4)
-0231	Unit #2 Fuel Storage Bins with Fabric Filter (DC-5)

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

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

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

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

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

D.11. Visible Emissions. Visible emissions tests shall be performed for the affected emissions points in Appendix SJRPP: Table 6 (Revised) - Part B & Part C, SJRPP: Materials Handling and Storage Operations for compliance purposes, in accordance with the testing frequency established in the table, and while using EPA Method 9, 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. ~~If the opacity limits are not met for those emissions units/points in Table 6 - Part C that exhaust through a stack, permit compliance shall be determined on the basis of mass emission rate test using EPA Methods 1-5, 40 CFR 60, Appendix A.~~ [PSD-FL-010; PA 81-13; Part V, Rule 2.501, JEPB; and, 0310045-015-AC/PSD-FL-010G.]

Recordkeeping and Reporting Requirements

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

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

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Subsection D. Emissions Unit -023

Report	Reporting Deadline(s)	Related Condition(s)
Quarterly Excess Emissions, if requested by the ERMD-EQD	Every 3 months (quarter)	D.13.

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

D.13. Malfunction Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD. [Rule 62-210.700(6), F.A.C.; and, Part III, Rule 2.301, JEPB]

D.14. Test Reports.

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

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

Miscellaneous Requirements.

D.15. NSPS Requirements - Subpart A. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

- 40 CFR 60.7, Notification and Recordkeeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting requirements,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

D.16. NSPS Requirements - Subpart Y. Except as otherwise provided in this permit, this emissions unit/points shall comply with all applicable provisions of 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants, adopted and incorporated by reference in Rule 62-204.800(8)(b)31., F.A.C. This emissions unit/points shall comply with **Appendix 40 CFR 60 Subpart Y** included with this permit. [Rule 62-204.800(8)(b)2., F.A.C.]

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Subsection G. Emissions Unit -026 & -027

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

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

These emissions units are two coal, coal coated with latex, and petroleum coke, and landfill gas fired circulating fluidized bed (CFB) boilers. These boilers are connected to the existing steam turbines of the retired Boilers Nos. 1 and 2 (297.5 MW each) as part of the repowering project authorized under air construction permit, No. 0310045-003-AC/PSD-FL-265. A dual-fueled 495-foot stack was added to the facility for Repowered Units 1 and 2, along with solid fuel delivery and storage facilities, limestone preparation and storage facilities (including three limestone dryers), a lime silo, aqueous ammonia storage, polishing scrubbers, precipitators or baghouses, ash removal and storage facilities, and an electrical substation. The stack diameter is 15 feet, exit temperature is 144 degrees F and the actual stack gas flow rate is 700,000 acfm.

JEA is allowed to burn 195 standard cubic feet per minute (scfm) of landfill gas in the CFB Boiler Nos. 1 and 2 (total). The 195 scfm of landfill gas is equivalent to a heat input of 6 MMBtu/hr. The landfill gas is being generated from the adjacent North Landfill (Facility ID No. 0310340) operated by the City of Jacksonville which is located directly north of the JEA NGS/SJRPP/ST power plant at 11405 Island Drive in Duval County. The maximum sulfur content, as H₂S, of the landfill gas is expected to be 48.2 parts per million volume dry (ppmvd). The natural gas presently being combusted in the CFB boilers typically contains 34 ppmvd of H₂S.

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

The CFB boiler Nos. 1 and 2 are equipped with mercury (Hg) CEMS which were manufactured by Thermo Scientific, Model 801-ADFNCB. CFB boiler Nos. 1 and 2 began operation in February 2002 and May 2002, respectively.

{Permitting notes: The emissions units are regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(8)(b)2., F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD; PSD-FL-265; PSD-FL-265(A, B & C)]; and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination; and, Compliance Assurance Monitoring (CAM), adopted and incorporated in Rule 62-204.800, F.A.C.; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR).}

Essential Potential to Emit (PTE) Parameters

G.1.1.1. Permitted Capacity. The maximum operation heat input rates are as follows:

E.U. ID No.	MMBtu/hr Heat Input	Fuel Type
-026	2,764	<u>Natural Gas, No. 2 Fuel Oil, Coal and Petroleum Coke</u>
-027	2,764	<u>Natural Gas, No. 2 Fuel Oil, Coal and Petroleum Coke</u>

These rates are included only for purposes of determining capacity during compliance stack tests. Continuous compliance with these rates is not required; and, capacity during compliance testing shall be determined based

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on fuel flow data and the as-fired heat content of the fuel. [Rules 62-4.160(2) and 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; and, 0310045-003-AC/PSD-FL-265.]

G.1.2. Permitted Capacity. The maximum landfill gas firing rate for the CFB Boiler Nos. 1 and 2 is as follows:

E.U. ID No:	scf/hr
-026 and -027	11,700 (total)

Landfill gas may be burned in combination with other authorized fuels provided the maximum heat input to each boiler is not exceeded. [Rules 62-4.160(2) and 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; and, Application No. 0310045-027-AC.]

{Permitting notes: The permittee and the Department agree that the CEMS used for the federal Acid Rain Program (40 CFR Part 75) conservatively overestimates heat input ratings. The monitoring data for heat input is, therefore, not appropriate for purposes of compliance, including annual compliance certifications.}

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

G.3. Methods of Operation. Only coal, coal treated with a latex binder, petroleum coke, No. 2 fuel oil (maximum sulfur content of 0.05 percent, by weight), and natural gas, shall be fired in Units 1 and 2. {Permitting note: Fuel additives, such as naturally occurring clays containing kaolinite or montmorillonite, along with olivine, bauxite or granite in the form of a raw material and/or as a component of coal bottom ash may be used to prevent agglomeration of the bed material in the boilers. The Department and the Compliance Authority shall be notified in writing if a new source or type of fuel additive is desired to be evaluated for approval.} [Rule 62-213.410, F.A.C.; 0310045-003-AC/PSD-FL-265; and, 0310045-012-AC]

G.4. Hours of Operation. These emissions units are allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200 (Definitions - PTE), F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Air Pollution Control Technology

G.5.1. Sulfur Dioxide Control. 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] **Sulfur Dioxide, Acid Gases and Metals Control.** Sulfur dioxide (SO₂) and acid gases shall be controlled by the injection of limestone into the CFB boiler beds. Residual sulfur dioxide, acid gases and metals shall be further controlled by the use of add-on air quality control systems for Units 1 and 2. The add-on air quality control systems installed by JEA and approved by the Department are spray dryer absorber (SDA) systems (one for Unit 1 and one for Unit 2) and fabric filters (one for Unit 1 and one for Unit 2). During periods when an SDA is non-operational due to malfunction, maintenance or repair, limestone injection to the associated CFB boiler shall be increased to the extent needed to ensure that the SO₂ emission limits in Specific Condition No. **G.8.** for Units 1 and 2 of 0.2 lb/mmBtu, 24-hr block average, and 0.15 lb/mmBtu, 30-day rolling average are achievable. Non-operation of the SDA is limited to a maximum of 12 hours per month per unit (12-month rolling average). [Applicant Request; and 0310045-022-AC/PSD-FL-265E, specific condition 9.]

G.5.2. Sulfur Dioxide (SO₂). The permittee shall inject limestone into the CFB boiler beds or use the spray dryer absorber as necessary to maintain SO₂ emissions within permit limits as recorded by the continuous emissions monitoring system (CEMS) at all times. [Rules 62-4.070(1) and (3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Permit No. 0310045-027-AC.]

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- G.6. Oxides of Nitrogen Control.** A selective non-catalytic reduction (SNCR) system designed to meet a limit of 0.09 lb/MMBtu, 30-day rolling average, shall be used for control of oxides of nitrogen (NO_x) emissions. [Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]
- G.7. Particulate Matter Control.** Particulate matter (PM and PM₁₀) shall be controlled by the use of high efficiency, add-on air quality control devices (either fabric filters or electrostatic precipitators) that are designed to meet a limit of 0.011 lb/MMBtu. [Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions Nos. **G.8.** thru **G.18.** are based on the specified averaging time of the applicable test method.

- G.8. Best Available Control Technology.** The following Table 1 is a summary of the BACT determinations by the Department and other limits requested by the applicant, as noted:

Table 1: Emission Limits for CFB Units 1 and 2

Pollutant	Emission Limits - Per Unit
Visible emissions	10 percent opacity, 6-minute block average
SO ₂ ²	0.2 lb/MMBtu, 24-hour block average ^{2,3} 0.15 lb/MMBtu, 30-day rolling average ²
NO _x ¹	0.09 lb/MMBtu, 30-day rolling average ⁴
PM/PM ₁₀ ¹	0.011 lb/MMBtu, 3-hour average ¹
CO ¹	350 lbs/hour, 24-hour block average ^{1,3}
VOCs ¹	14 lbs/hour, 3-hour average ¹
Pb ²	0.07 lb/hour, 3-hour average ²
H ₂ SO ₄ ²	1.1 lbs/hour, 3-hour average ²
HF ¹	0.43 lb/hour, 3-hour average ¹
Hg ¹	0.03 lb/hour, 6-hour average ¹

¹ BACT determination.

² Requested by applicant.

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

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

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

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

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

G.11. Oxides of Nitrogen.

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

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

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

G.13. Carbon Monoxide. Carbon monoxide (CO) emissions shall not exceed 350 lbs/hour, 24-hour block average, nor 1533 tons per year from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

G.14. Volatile Organic Compounds. Volatile organic compound (VOC) emissions shall not exceed 14 lbs/hour (3-hour average), nor 61.5 tons per year from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

G.15. Lead. Lead (Pb) emissions shall not exceed 0.07 lb/hour (3-hour average), from either CFB Boiler No. 1 or No. 2. [Applicant Request; Rule 62-212.400, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

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

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

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

Excess Emissions

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

G.19. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered

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to and (2) the duration of excess emissions shall be minimized but in no case exceed the limitations established in Specific Condition **G.22**. [Rule 62-210.700(1), F.A.C.; and, 0310045-015-AC/PSD-FL-265C]

- G.20. Best Operational Practices to Minimize Excess Emissions.** The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in Appendix Q Protocol for Startup and Shutdown. [Rule 62-210.700(1), F.A.C. and Proposed by the Applicant in the Renewal Application]
- G.21. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
- G.22. Excess Emissions - Authorized Emissions.**
- (1) Notwithstanding other emission limits and standards established by this permit, excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided (1) that best operational practices are adhered to and (2) the duration of excess emissions shall be minimized but not exceed sixty (60) hours in any calendar month per emissions unit (CFBs Units Nos. 1 and 2). The permittee shall keep operational records necessary to demonstrate compliance with this restriction. Emissions data collected during periods of startup, shutdown, and malfunction shall be included when determining compliance with annual emission limits. The CFB Units shall not be started up at the same time. The permittee shall update the written procedure summarizing the current best operational practices to be followed every 5 years (at operating permit renewal). Pursuant to Rule 62-210.200, F.A.C., Definitions, the following are defined:
- Startup.* The commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
 - Shutdown.* The cessation of the operation of an emissions unit for any purpose.
 - Malfunction.* Any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.
- See 40 CFR 60.7 and Rule 62-210.700(6), F.A.C. for reporting of excess emissions. [Rules 62-210.200, 62-210.700(1) & (5), F.A.C.; and, 0310045-015-AC/PSD-FL-265C]
- (2) Notwithstanding other emission limits and standards established by this permit, excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided (1) that best operational practices are adhered to and (2) the duration of excess emissions shall be minimized but not exceed sixty (60) hours during any 30 consecutive calendar days per emissions unit (CFBs Units Nos. 1 and 2). The permittee shall keep operational records necessary to demonstrate compliance with this restriction. Emissions data collected during periods of startup, shutdown, and malfunction shall be included when determining compliance with annual emission limits. The CFB Units shall not be started up at the same time. The permittee shall update the written procedure summarizing the current best operational practices to be followed every 5 years (at operating permit renewal). Pursuant to Rule 62-210.200, F.A.C., Definitions, the following are defined:
- Startup.* The commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
 - Shutdown.* The cessation of the operation of an emissions unit for any purpose.
 - Malfunction.* Any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.
- See 40 CFR 60.7 and Rule 62-210.700(6), F.A.C. for reporting of excess emissions. [Rules 62-210.200, 62-210.700(1) & (5), F.A.C.; and, 0310045-015-AC/PSD-FL-265C; and, applicant requested]

Monitoring of Operations

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G.23. Compliance Assurance Monitoring (CAM) Requirements. These emissions units are subject to the CAM requirements contained in the attached Appendix CAM: NGS CFB Boilers Nos. 1 and 2. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; and, Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Monitoring Requirements

G.24. Continuous Emissions Monitoring Systems. The permittee shall install, calibrate, operate, and maintain Continuous Emission Monitoring Systems (CEMS) in the stack to measure and record the sulfur dioxide, oxides of nitrogen, carbon monoxide, mercury (Hg) and visible emissions from CFB Boilers Nos. 1 and 2. An emission level above a BACT limit, considering the 6-minute, 24-hour and 30-day rolling average periods, as applicable, shall be reported to the ERMD-EQD pursuant to Rule 62-4.160(8), F.A.C. The continuous emission monitoring systems shall comply with the certification, performance specifications, and quality assurance, and other applicable requirements of 40 CFR Part 75 and 40 CFR Part 60 (Appendix B), as indicated above. Periods of startup, shutdown, and malfunction shall be monitored, recorded, and reported as excess emissions when emission levels exceed the limits in Table 1 of Specific Condition No. **G.8.** following the format of 40 CFR 60.7 (As revised, 64 Fed Reg. 7458 (Feb. 12, 1999)). {Permitting note: 40 CFR 75 does not address RATA requirements for CO CEMS. The required annual RATA testing for the CO CEMS shall be performed instead as required by 40 CFR 60 Appendix B.} [0310045-003-AC/PSD-FL-265; 0310045-022-AC/PSD-FL-265E, specific condition 50.(a).]

Hg Continuous Emissions Monitoring Systems Operation. The permittee has voluntarily agreed to install and operate Hg CEMS on Units 1 and 2. The Hg CEMS were installed and operational in 2009, and shall be operated in accordance with the quality assurance/quality control (QA/QC) plan submitted by JEA and approved by the Department. The attached **Appendix Hg CEMS - Quality Assurance Plan** is a part of this permit. Any future revisions to the QA/QC plan that are approved by the Department will also be part of the permit. This requirement will stay in effect until such time that the state or EPA passes a regulatory requirement for mercury detailing the Hg CEMS operational protocol, at which time that rule will become the preferred protocol. The annual relative accuracy test required by the QA/QC plan can be performed by the permittee under the normal mode of operation. For JEA, the normal mode of operation is firing a fuel blend which is typically 15% coal and 85% petroleum coke. Every reasonable effort should be made by the permittee for the Hg CEMS to be operating during the time periods when the SDA is off-line. If the Hg CEMS is not operating during a time period when the SDA is taken off-line, the best estimate of Hg emissions shall be provided to the Department and EQD based on the requirements of Rule 62-210.370, F.A.C. [Rules 62-4.070(3) and 62-210.370, F.A.C., and 0310045-022-AC/PSD-FL-265E, specific condition 50.(b).]

Continuous Emissions Monitoring Systems Reporting. JEA shall submit to the Department and EQD the Hg CEMS emissions data for both Units 1 and 2. It shall be submitted in a graphical representation of Hg emissions against time. The graph shall also indicate the periods when the SDA was taken off-line. The four quarterly Hg CEMS data shall be submitted starting on June 30, 2009 and ending on June 30, 2010 and thereafter Hg CEMS data shall be submitted semi-annually until June 2012. The submittal of Hg CEMS data after June 2012 will be only upon request from the Department or EQD. [Rule 62-4.070(3), F.A.C., and 0310045-022-AC/PSD-FL-265E, specific condition 50.(c).]

Compliance Determination - Test Methods and Procedures

G.25. Test Methods. Required tests shall be performed in accordance with the following reference methods:

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Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Methods 5, 5B, 8 17 or 29	Methods for Determining Particulate Matter Emissions
EPA Methods 201 or 201A	Methods for Determining PM ₁₀ Emissions
EPA Methods 6, 6A, 6B, or 6C	Methods for Determining Sulfur Dioxide Emissions
Method 7, Method 7A, 7C, 7D, or 7E	Determination of Nitrogen Oxide Emissions
EPA Method 19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
EPA Method 9	Visual Determination of the Opacity of Emissions

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

- G.26. Annual Compliance Tests.** Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), this emissions unit shall be tested to demonstrate compliance with the emission limitations and standards for PM₁₀, nitrogen oxides, sulfur dioxide, carbon monoxide and visible emissions. The NO_x, SO₂ and CO RATA test data used may be used to demonstrate compliance with the annual test requirement, provided the testing requirements (notification, procedures & reporting) of Chapter 62-297, F.A.C. are met. [Rule 62-297.310(7), F.A.C.]
- G.27. Compliance Tests Prior To Renewal.** Prior to permit renewal, compliance tests shall be performed for the following pollutants: VE, PM, CO, VOC, NO_x and SO₂. [Rule 62-297.310(7)(a)3., F.A.C.]
- G.28. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- G.29. Performance Tests and CEMS Certifications.** Annual compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.340, F.A.C., on CFB Boilers Nos. 1 and 2 while firing either coal or petroleum coke as indicated below. No stack tests are required if continuous emissions monitoring systems are used to demonstrate compliance pending EPA approval, otherwise initial performance tests shall be conducted as described above. Certification tests (or performance evaluations, as applicable) for all Continuous Emissions Monitoring System (CEMS) required by this permit must be completed within 60 days after achieving the maximum production rate at which each unit will be operated but not later than 90 days of initial operation, and prior to the initial stack tests for that Unit. No methods other than the ones identified below may be used for compliance testing unless prior DEP or the ERMD-EQD approval is received in writing. DEP or the ERMD-EQD may request a special compliance test pursuant to Rule 62-297.340(2), F.A.C., when, after investigation (such as complaints, increased visible emissions, or questionable maintenance of control equipment), there is reason to believe that any applicable emission standard is being violated. [0310045-003-AC/PSD-FL-265]

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- G.30. Visible Emissions (Opacity).** Compliance with the visible emissions limit in Specific Condition **G.9.** shall be demonstrated with continuous opacity monitors installed, certified, operated, and maintained in accordance with 40 CFR Part 75, based on 6-minute block averages and excluding periods of startup, shutdown, and malfunction. [0310045-003-AC/PSD-FL-265]
- G.31. Sulfur Dioxide.**
- Compliance with sulfur dioxide (SO₂) emissions limits in Specific Condition **G.10.a.** shall be demonstrated with Continuous Emissions Monitoring Systems (CEMS) installed, certified, operated and maintained in accordance with 40 CFR Part 75, based on 24-hour block and 30-day rolling averages, as applicable, and excluding periods of startup, shutdown, and malfunction. Emissions recorded in parts per million shall be converted to lb/MMBtu using an appropriate F-factor for purposes of determining compliance with the emission limits in Specific Condition **G.10.a.**
 - Compliance with the annual SO₂ emission limit in Specific Condition **G.10.b.** shall be determined based on SO₂ data from the CEMS. Emissions during periods of startup, shutdown, and malfunction shall be considered in determining the total annual emissions.
 - At least three (3) hours of data are required to establish a 24-hour average for CEMS data. [Applicant's request; 0310045-012-AC/PSD-FL-265B; and, 0310045-015-AC/PSD-FL-265C]
- G.32. Oxides of Nitrogen.**
- Compliance with the oxides of nitrogen (NO_x) emissions limit in Specific Condition **G.11.a.** shall be demonstrated with a CEMS installed, certified, operated and maintained in accordance with 40 CFR Part 75, based on a 30-day rolling average and excluding periods of startup, shutdown and malfunction. The 30-day rolling averages will be determined based on hourly values calculated in accordance with Appendix F of 40 CFR Part 75.
 - Compliance with the annual NO_x emissions limit in Specific Condition **G.11.b.** shall be determined by summing the products of hourly NO_x emission rate and heat input rate data from the CEMS. Emissions during periods of startup, shutdown, and malfunction shall be considered in determining the total emissions. [Applicant's request; and, 0310045-015-AC/PSD-FL-265C]
- G.33. Particulate Matter.**
- Annual compliance tests shall be performed on CFB Boilers Nos. 1 and 2 using EPA Methods 201 or 201A, to determine compliance with the particulate matter-10 microns or smaller (PM₁₀) limits in Specific Condition **G.12.b.** while firing petroleum coke. If petroleum coke has been fired for less than 400 hours during the previous federal fiscal year, the annual testing may be performed while firing coal.
 - Compliance with the annual particulate matter (PM) emissions limit in Specific Condition **G.12.c.** shall be determined using the following formula. This formula shall be used for each fuel consumed by each of CFB Boilers Nos. 1 and 2 and existing Boiler No. 3, and the resulting PM emissions summed to obtain a 12-month total for CFB Boilers Nos. 1 and 2 and existing Boiler No. 3.

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

Where:

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

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

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

G.34. Carbon Monoxide.

- a. Compliance with the short-term carbon monoxide (CO) limit in Specific Condition **G.13.** shall be demonstrated with CEMS installed, calibrated, operated, and maintained in accordance with 40 CFR Part 60, Appendix B based on a 24-hour block average and excluding periods of startup, shutdown, and malfunction.
- b. Compliance with the annual CO limit in Specific Condition **G.13.** shall be demonstrated by summing the products of hourly CO emission rate and heat input rate data from the CEMS. Emissions during periods of startup, shutdown, and malfunction shall be considered in determining the total emissions.

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

G.35. Valid Data. For the continuous monitoring systems required under Specific Conditions **G.31.a.**, **G.32.a.**, and **G.34.a.**, the permittee shall determine compliance based on CEMS data at the end of each operating day (midnight to midnight), new 24-hour block and 30-day average emission rates shall be calculated from the arithmetic average of all valid hourly emission rates during the previous 24-hours or 30 operating days, as appropriate. Valid hourly emission rates shall not include periods of startup, shutdown, or malfunction as defined in Rule 62-210.200, F.A.C., where emissions exceed the standards in Table 1 (See Specific Condition **G.8.**). These excess emission periods shall be reported as required in 40 CFR 60.7. A valid hourly emission rate shall be calculated for each hour in which at least two concentrations are obtained at least fifteen (15) minutes apart. [0310045-003-AC/PSD-FL-265]

G.36. Volatile Organic Compounds. Compliance tests shall be performed on Units 1 and 2 using EPA Method 18, 25, or 25A to determine compliance with the volatile organic compound (VOC) emission limit in Specific Condition **G.14.** while firing petroleum coke. Compliance testing shall be conducted once within every five (5) years thereafter while firing petroleum coke or coal. Compliance with the CO limits based on CEMS data shall be used as surrogates to indicate compliance with the VOC limits. [0310045-003-AC/PSD-FL-265]

G.37. Lead. Initial compliance tests only shall be performed on Unit 2 using EPA Method 12 or 29 to determine compliance with the lead emission limit in Specific Condition **G.15.** while firing coal and while firing petroleum coke. ~~[0310045-003-AC/PSD-FL-265]~~ An additional compliance test shall be conducted once every five years at permit renewal on one of the units while firing petroleum coke or coal or any mix of the two fuels and with the SDA down for maintenance. On July 28, 2009, a compliance test for lead was conducted on approximately 80 percent pet coke and 20 percent coal with the SDA down for maintenance. Subsequently, if the normal fuel mix to the CFB boilers is changed to 25 percent (or greater) coal for a period of more than 15 days, and the SDA requires scheduled maintenance, then an additional compliance test shall be conducted at a typical fuel mix within 60 days after the change is made and while the SDA is down for maintenance. [Rule 62-4.070(3), F.A.C.; and 0310045-022-AC/PSD-FL-265E, specific condition 37.]

G.38. Sulfuric Acid Mist. Initial compliance tests only shall be performed on Unit 2 using EPA Method 8 to determine compliance with the sulfuric acid mist emission limit in Specific Condition **G.16.** while firing

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petroleum coke and while firing coal. In addition, compliance with the SO₂ limits based on CEMS data shall be used as a surrogate to indicate compliance with the sulfuric acid mist limit. [0310045-003-AC/PSD-FL-265]

- G.39. Hydrogen Fluoride.** Initial compliance tests only shall be performed on CFB Boiler No. 2 using EPA Method 13A or 13B to determine compliance with the hydrogen fluoride emission limit in Specific Condition **G.17.** while firing coal and while firing petroleum coke. [0310045-003-AC/PSD-FL-265]
- G.40. Mercury.** Initial compliance tests only shall be performed on CFB Boiler No. 2 using EPA Methods 29, 101, or 101A to determine compliance with the mercury emission limit in Specific Condition **G.18.** while firing coal and while firing petroleum coke. [0310045-003-AC/PSD-FL-265]
- G.41. Distillate No. 2 Fuel Oil - Sulfur Content.** Vendor or other fuel sampling and analysis data (using applicable ASTM methods) shall be used to determine that the sulfur content of the No. 2 fuel oil used in CFB Boilers Nos. 1 and 2 does not exceed 0.05%, by weight. [Rule 62-210.200, Definitions - PTE, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Recordkeeping and Reporting Requirements

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

- G.42. Reporting Schedule.** The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	G.49.
Quarterly Excess Emissions, if requested by the ERMD-EQD	Every 3 months (quarter)	G.44.

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

- G.43. Plant Operation - Problems.** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, JEA shall notify the ERMD-EQD as soon as possible, but at least within one (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.; and, 0310045-003-AC/PSD-FL-265]
- G.44. Excess Emissions Report.**
 - a. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD.
 - b. If excess emissions occur due to malfunctions for a period of more than two hours, the owner or operator shall notify ERMD-EQD within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may require a written summary report of the incident. Pursuant to the New Source

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Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A.

[0310045-003-AC/PSD-FL-265; and, Rule 62-210.700(6), F.A.C.]

- G.45. Records.** All measurements, records, and other data required to be maintained by JEA shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP and ERMD-EQD representatives upon request. [Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.; and, 0310045-003-AC/PSD-FL-265]
- G.46. Certification Testing of Monitors.** As required under the federal Acid Rain Program, the Acid Rain Monitoring Plan for NGS shall be revised to address the new Continuous Emissions Monitoring Systems (CEMS) for sulfur dioxide, oxides of nitrogen, and visible emissions (opacity) for Repowered NGS Units 1 and 2. The permittee shall provide a copy of this revised plan, as well as model and serial numbers for each of the monitors, to ERMD-EQD within 45 days after completion of all certification tests. In addition, the permittee shall provide notification that the carbon monoxide CEMS meet the performance specifications in 40 CFR Part 60, Appendix B (as applicable), and also provide model and serial numbers to ERMD-EQD within 45 days after completion of the performance specification tests. [0310045-003-AC/PSD-FL-265]
- G.47. Quarterly Compliance Reports for Annual Limits.** The permittee shall provide reports quarterly to the ERMD-EQD certifying compliance with the 12-month rolling limits on SO₂, NO_x and PM (TSP) for NGS CFB Boilers Nos. 1 and 2 and existing Boiler No. 3 set forth in Specific Conditions **G.10.b.**, **G.11.b.**, and **G.12.c.** The reports shall be submitted within 45 days after the last day of each calendar quarter. [0310045-003-AC/PSD-FL-265]

General Operation Requirements

- G.48. Operating Procedures.** Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Miscellaneous

- G.49. NSPS Requirements - Subpart A.** These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
- 40 CFR 60.7, Notification and Recordkeeping
 - 40 CFR 60.8, Performance Tests
 - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
 - 40 CFR 60.12, Circumvention
 - 40 CFR 60.13, Monitoring Requirements
 - 40 CFR 60.19, General Notification and Reporting requirements,
- which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]
- G.50. NSPS Requirements - Subpart Da.** Except as otherwise provided in this permit, the combustion turbine shall comply with all applicable provisions of 40 CFR 60, Subpart Da, Standards of Performance for Electric

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Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted by reference in Rule 62-204.800(8)(b)2., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.47a. These emissions units shall comply with **Appendix 40 CFR 60 Subpart Da** included with this permit. [Rule 62-204.800(8)(b)2., F.A.C.]

G.51. Engineering Study to increase the Reliability and Availability of the SDA System. The permittee shall provide an engineering study by December 31, 2010 to the Department and EQD detailing opportunities to increase the reliability and availability of the SDA system. The study will address potential improvements in preventive and predictive maintenance, and potential equipment and system modifications (including opportunities for redundancy) which will result in minimizing the amount of time the SDA is off-line during CFB operation. The engineering study shall also include the cost estimates associated with potential equipment/system modifications (including opportunities for redundancy) and the cost effectiveness of the associated emissions reductions. [Rule 62-4.070(3), F.A.C.; and 0310045-022-AC/PSD-FL-265E, specific condition 49.]

G.52. Compliance Plan. Permit Number 0310045-027-AC authorized the combustion of landfill gas in the CFB Boiler Nos. 1 and 2.

a. Operation of the emissions units beyond the time frames established by the AC permit is allowed, provided the Department has received and verified properly signed and sealed certification statements from the Responsible Official (R.O.) and a licensed Florida Professional Engineer (P.E.) stating that: 1) the construction and modifications of the emissions units were completed in accordance with the AC permit; and, 2) compliance with the terms and conditions contained within the AC permit have properly been demonstrated prior to the expiration date of the AC permit.

b. The P.E. and R.O. certification statements from DEP Form No. 62-210.900(1) shall be used and must be submitted to the Department within 105 days after achieving the maximum rate at which the emissions units will be operated, but no later than 180 days after initially burning landfill gas in the boilers.

[Rules 62-213.440(2), and 62-213.420(1)(a)5., F.A.C.]

G.53. Source Obligation. A relaxation of the specific terms and conditions of this permit, as established by Permit No. 0310045-027-AC, may subject the facility to a BACT determination. Specifically, an increase in the quantity of landfill gas burned and/or the H₂S content of the landfill gas could trigger a BACT determination. {See Rule 62-212.400(12)(a) - (c), F.A.C.} Any request to change the specific terms and conditions of Permit No. 0310045-027-AC must be submitted to the Bureau of Air Regulation in the Division of Air Resource Management of the Florida Department of Environmental Protection. [Rule 62-212.400(12)(a) - (c) (Source Obligation), F.A.C.; and, Permit No. 0310045-027-AC, specific condition 3.A.1.]

Landfill Gas - Miscellaneous Requirements

G.54. Fuel Consumption Records. The permittee shall maintain, for each boiler, a daily log of the amount of landfill gas fired. [Rules 62-4.070(1) and (3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Permit No. 0310045-027-AC.]

G.55. Test Reports. For each test run, the report shall also indicate the quantity of landfill gas burned. [Rule 62-297.310(8), F.A.C.; and, Permit No. 0310045-027-AC.]

G.56. Annual Operating Report (AOR). The permittee shall submit the quantity of landfill gas combusted in each boiler with the AOR. [Rules 62-4.070(1) and (3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Permit No. 0310045-027-AC.]

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Subsection H. Emissions Units -028, -029, -031, -033 thru -038, -042 & -051 thru -053

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

E.U. ID No.	Brief Description
-028	NGS: Materials Handling and Storage Operations

-028	Belt Conveyor No. 1
-028a	Vessel Hold, Vessel Unloader and Spillage Conveyor
-028c	Transfer Building 1
-028d	Transfer Building 5 and limestone loadout chute
-028g	Transfer Building 2
-028h	Fuel Storage Domes A & B (includes fuel stackers/reclaimers)
-028h	NGS Reclaimer
-028i	Transfer Building 3
-028o	Plant Transfer Building
-028p	Limestone Storage Pile and Limestone Reclaim Hoppers
-028q	Transfer Building 4
-028v	Transfer Building 6

-029	NGS: Crusher House Building Baghouse Exhaust
-031	NGS: Fuel Silos Dust Collectors
-033	NGS: Limestone Dryers/Mills Building
-034	NGS: Limestone Prep Building Dust Collectors
-035	NGS: Limestone Silos Bin Vent Filters
-036	NGS: Fly Ash Transport Blower Discharge
-037	NGS: Fly Ash Silos Bin Vents
-038	NGS: Bed Ash Silos Bin Vents
-042	NGS: AQCS Pebble Lime Silo
-051	NGS: Fly Ash Slurry Mix System Vents
-052	NGS: Bed Ash Slurry Mix System Vents
-053	NGS: Bed Ash Surge Hopper Bin Vents

The material handling and storage operations process ash, limestone, coal, coal coated with latex, and petroleum coke to support the operation of CFB Boilers Nos. 1 and 2. Each materials handling and storage operation at NGS employs one or more control strategies to limit emissions of particulate matter to meet specific emission limitations and/or visible emissions limits. The control strategies include the use of best operating/design practices, total or partial enclosures, conditioned materials, wet suppression, water sprays, and dust collection systems. Except for the Belt Conveyor 1, all conveyors are enclosed. The fly and bed ash silos (E.U. ID No. -037 and E.U. ID No. -038) have the capability to unload into either trucks or rail cars

{Permitting notes: Emission Unit ID Nos. -029 & -031 are regulated under 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants (coal handling at NGS, excluding open storage piles), adopted and incorporated by reference in Rule 62-204.800(8)(b)31., F.A.C. Emission Unit ID Nos. -033, -034 & -035 are regulated under Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (limestone handling at NGS, except for open storage piles and truck unloading), adopted and incorporated by reference in Rule 62-204.800(8)(b)64., F.A.C.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Units -028, -029, -031, -033 thru -038, -042 & -051 thru -053

Some of these emissions units are regulated under Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD; PSD-FL-265; 0310045-007-AC/PSD-FL-265A; and, 0310045-012-AC/PSD-FL-265B]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination; and, Rule 62-296.711, F.A.C., Reasonable Available Control Technology (RACT) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations.}

Essential Potential to Emit (PTE) Parameters

H.1. Permitted Capacity.

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

Handling/Usage Rate

<u>Material</u>	<u>Tons Per Year</u>
Coal/Coal coated with latex/Petroleum Coke	2.42 million
Limestone	1.45 million

- b. Heat Input Rates. The maximum heat input rates to the three limestone dryers shall not exceed 57.9 MMBtu/hr, for all three units combined. These rates are included only for purposes of determining capacity during compliance stack tests. Continuous compliance with these rates is not required; capacity during compliance testing shall be determined based on fuel flow data and the as-fired heat content of the fuel.

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

- H.2. Hours of Operation.** The Materials Processing Operations are allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200 (Definitions - PTE), F.A.C.; Part III, Rule 2.301, JEPB]

- H.3. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

H.4. Method of Operation.

- a. Material Processing Operations. The emissions units either process or transfer materials used in the operations of NGS's CFBs Boilers Nos. 1 and 2. The transfer buildings (TBs) are numbered sequentially as they occur in the process with TB 1 being the TB nearest the vessel unloading operations and TB 5 being the TB immediately upstream of the fuel storage buildings and the limestone storage pile. TBs 1 thru 5 are associated with the transfer of raw coal, pet coke and limestone, while TB 6 is associated with the transfer of raw coal and pet coke and the Plant TB is associated with the transfer of crushed coal and pet coke. Limestone loadout via telescopic chute is included with TB 5. Except for the Belt Conveyor 1, all conveyors are enclosed.
- b. Fuels. Limestone Dryers (3)(EU -033). Each limestone dryer is allowed to fire distillate fuel oil and Natural/Landfill Gases. The distillate fuel oil has a maximum sulfur content limit of 0.05%, by weight. [Rule 62-213.410, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions Nos. **H.5.**, **H.6.** and **H.7.** are based on the specified averaging time of the applicable test method.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Units -028, -029, -031, -033 thru -038, -042 & -051 thru -053

H.5. These emissions units/points are subject to Appendix SJRPP: Table 6 (Revised) Part C, SJRPP, amended July 29, 1999, and it is attached. Table 6 Part C is provided herein to reflect the corresponding PM/PM₁₀ limits:

Table 6 Part C

E.U. ID No.	Brief Description	PM/PM₁₀² (lb/hr)	Opacity (%) (VE Limit)
New Materials Handling Operations			
028e	New Transfer Tower #1 NGS	0.09/0.04	5
028e	New Transfer Tower #2 NGS	0.09/0.04	5
028e	New Transfer Tower #3 NGS	0.08/0.04	5
028h	NGS Reclaimer	0.52/0.24	10
028i	New Transfer Tower #4 NGS	0.06/0.03	5
028k	Transfer Tower D-2	0.04/0.02	5

Note:

¹The E.U. ID Nos. added to this table were from Figures TE-2 & 3 in the Technical Evaluation & Preliminary Determination for PSD-FL-010(C).

²PM₁₀ limits apply only to new and modified emission points.

[PSD-FL-010; BACT; PA 81-13; PSD-FL-010, amended October 28, 1986; and, PSD-FL-010C, clerked July 29, 1999] <intentionally left blank>

H.6. Particulate Matter. The maximum particulate matter emissions from the following operations shall not exceed 0.01 grains per dry standard cubic foot:

- a. Limestone dryers - each (3) (EU-033)
 - b. Limestone prep building dust collectors (EU-034)
 - c. Limestone silos bin vent filters (EU-035)
- [0310045-003-AC/PSD-FL-265; and, 0310045-012-AC/PSD-FL-265B]

H.7. Visible Emissions. The materials processing sources at NGS shall be regulated as follows, and the emission limits and standards shall apply upon completion of the initial compliance tests for each of the emissions units or activities.

- a. The following materials handling sources shall be equipped with fabric filter controls and visible emissions shall not exceed 5 percent opacity:
 - (1) Crusher house building baghouse exhaust (EU-029)
 - (2) Fuel silos dust collectors (EU-031)
 - (3) Limestone dryers - each (3) (EU-033)
 - (4) Limestone prep building dust collectors (EU-034)
 - (5) Limestone silos bin vent filters (EU-035)
 - (6) Fly ash transport blower discharge (EU-036)
 - (7) Fly ash silos bin vents (EU-037)
 - (8) Bed ash silos bin vents (EU-038)
 - (9) AQCS pebble lime silo (EU-042)
 - (10) Fly ash slurry mix system vents (EU-051)
 - (11) Bed ash slurry mix system vents (EU-052)
 - (12) Bed ash surge hopper bin vents (EU-053)

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Units -028, -029, -031, -033 thru -038, -042 & -051 thru -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)
 - ~~(5) NGS Reclaimer (EU-028h)~~
- d. The limestone dryer/mill building shall have no visible emissions (other than from a baghouse vent). [0310045-003-AC/PSD-FL-265; 0310045-007-AC/PSD-FL-265A; and, 0310045-012-AC/PSD-FL-265B]

H.8. Distillate Fuel Oil Sulfur Content. The maximum sulfur content of the distillate No. 2 fuel oil that is allowed to be fired in each of the three (3) limestone dryers (EU-033) is 0.05%, by weight. [0310045-003-AC/PSD-FL-265]

Excess Emissions

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

H.9. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

H.10. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

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

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Method 5	Methods for Determining Particulate Matter Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions
EPA Method 22	Visual Determination of Fugitive Emissions from Material Sources

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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Units -028, -029, -031, -033 thru -038, -042 & -051 thru -053

- H.12. Annual Compliance Tests.** Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), this emissions unit/points shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions. The testing frequency is established in the table in specific condition **H.19**. [Rule 62-297.310(7), F.A.C.]
- H.13. Compliance Tests Prior To Renewal.** Prior to permit renewal, compliance tests shall be performed for the following pollutants: VE. The testing frequency is established in the table in specific condition H.19. [Rule 62-297.310(7)(a)3., F.A.C.]
- H.14. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- H.15. Limestone Dryers (3): Distillate No. 2 Fuel Oil - Sulfur Content.** Vendor or other fuel sampling and analysis data (using applicable ASTM methods) shall be used to determine that the sulfur content of the No. 2 fuel oil used in the three (3) limestone dryers does not exceed 0.05%, by weight. [Rule 62-210.200 (Definitions - PTE), F.A.C.; and, 0310045-003-AC/PSD-FL-265]
- H.16. Limestone Dryers (3) - Visible Emissions (EU-033).** Compliance with the visible emissions limit in Specific Condition **H.7**. for the limestone dryers (each) shall be demonstrated using EPA Method 9 initially and once within every five years thereafter. The limestone dryers shall fire fuel oil during the initial compliance tests. In subsequent years, the testing shall be conducted annually if fuel oil has been fired for more than 400 hours during the previous federal fiscal year; otherwise, the testing shall be conducted once within every five years, even if the testing is conducted while firing natural gas. [0310045-003-AC/PSD-FL-265]
- H.17. Limestone Dryers (3) - Particulate Matter (EU-033).** Initial compliance tests only shall be performed on the limestone dryers (3) to determine compliance with the particulate matter limit in Specific Condition **H.6**. using EPA Method 5. [0310045-003-AC/PSD-FL-265]
- H.18. Particulate Matter.** Initial compliance tests only shall be performed on the limestone prep building dust collectors (EU-034) and the limestone silos bin vent filters (EU-035) to determine compliance with their particulate matter limit specified in Specific Condition **H.6**. using EPA Method 5, 40 CFR 60, Appendix A. The minimum sample volume shall be 30 dry standard cubic feet. [0310045-003-AC/PSD-FL-265; 40 CFR 60, Appendix A; and, Rule 62-296.711(3)(b), F.A.C.]

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

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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Units -028, -029, -031, -033 thru -038, -042 & -051 thru -053

NSPS - 000				
Limestone Prep Building Dust Collectors - Baghouse Exhaust (EU-034)	9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
Limestone Silos Bin Vent Filters - Baghouse Exhaust (EU-035)	9-VE 5-PM	IVE - 60 min RVE - 30 min	Meth 9: I & R Meth 5: I only	LS
Limestone Dryer/Mill Building (EU-033)	22	IVE - 75 min	I only	LS
NSPS - Y				
Crusher House Building Baghouse Exhaust (EU-029)	9	IVE - 3 hr RVE - 30 min	I & R	C &/or PC
Fuel Silos Dust Collectors - Baghouse Exhaust (EU-031)	9	IVE - 3 hr RVE - 30 min	I & R	C &/or PC
Other				
Fly Ash Transport Blower Discharge - Baghouse Exhaust (EU-036)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Fly Ash Silos Bin Vents - Baghouse Exhaust (EU-037)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Bed Ash Silos Bin Vents - Baghouse Exhaust (EU-038)	9	IVE - 30 min RVE - 30 min	I & R	Ash
AQCS Pebble Lime Silo - Baghouse Exhaust (EU-042)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Fly Ash Slurry Mix System Vents - Baghouse Exhaust (EU-051)	9	IVE - 60 min RVE - 60 min	I & R	Ash
Bed Ash Slurry Mix System Vents - Baghouse Exhaust (EU-052)	9	IVE - 30 min RVE - 30 min	I & R	Ash
Bed Ash Surge Hopper Bin Vents - Baghouse Exhaust (EU-053)	9	IVE - 60 min RVE - 60 min	I & R	Ash

C – Coal and/or Coal coated with latex

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

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

LS – Limestone; PC-Petroleum Coke

If the opacity limits are not met for those emissions units/points in Table 6 - Part C that exhaust through a stack, permit compliance shall be determined on the basis of mass emission rate test using EPA Methods 1-5, 40 CFR 60, Appendix A.

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

[0310045-003-AC/PSD-FL-265; 0310045-007-AC/PSD-FL-265A; 0310045-012-AC/PSD-FL-265B; 0310045-021-AC/PSD-FL-265D; 40 CFR 60.11(b); 40 CFR 60, Appendix A; 0310045-021-AC; and 0310045-015-AC/PSD-FL-010G.]

Recordkeeping and Reporting Requirements

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

H.20. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Units -028, -029, -031, -033 thru -038, -042 & -051 thru -053

Report	Reporting Deadline(s)	Related Condition(s)
Quarterly Excess Emissions, if requested by the ERMD-EQD	Every 3 months (quarter)	H.22.

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

H.21. Plant Operation - Problems. If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, JEA shall notify the ERMD-EQD as soon as possible, but at least within one (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.22. Excess Emissions Report. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the ERMD-EQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the ERMD-EQD. [Rule 62-210.700(6), F.A.C.]

If excess emissions occur due to malfunctions for a period of more than two hours, the owner or operator shall notify ERMD-EQD within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may require a written summary report of the incident. For EUs -029, -031, -033, -034 and -035, and pursuant to the Standards of Performance for New Stationary Sources at 40 CFR 60, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [0310045-003-AC/PSD-FL-265]

H.23. Records. All measurements, records, and other data required to be maintained by JEA shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP and the ERMD-EQD representatives upon request. [Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.; and, 0310045-003-AC/PSD-FL-265]

General Operation Requirements

H.24. Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.; and, 0310045-003-AC/PSD-FL-265]

H.25. NSPS Requirements - Subpart A. Emission Unit Nos. -029, -031, -033, -034 & -035 shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions including:
40 CFR 60.7, Notification and Recordkeeping
40 CFR 60.8, Performance Tests
40 CFR 60.11, Compliance with Standards and Maintenance Requirements
40 CFR 60.12, Circumvention
40 CFR 60.13, Monitoring Requirements
40 CFR 60.19, General Notification and Reporting requirements,

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Units -028, -029, -031, -033 thru -038, -042 & -051 thru -053

adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

H.26. NSPS Requirements - Subpart Y. Except as otherwise provided in this permit, this emissions unit/points (Emission Unit Nos. -029 & -031) shall comply with all applicable provisions of 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants (coal handling at NGS, excluding open storage piles), adopted and incorporated by reference in Rule 62-204.800(8)(b)31., F.A.C. This emissions unit/points shall comply with **Appendix 40 CFR 60 Subpart Y** included with this permit. [Rule 62-204.800(8)(b)2., F.A.C.]

H.27. NSPS Requirements - Subpart OOO. Except as otherwise provided in this permit, these emissions units/points (Emission Unit Nos. -033, -034 & -035) shall comply with all applicable provisions of 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (limestone handling at NGS, except for open storage piles and truck unloading), adopted and incorporated by reference in Rule 62-204.800(8)(b)64., F.A.C. These emissions units/points shall comply with **Appendix 40 CFR 60 Subpart OOO** included with this permit. [Rule 62-204.800(8)(b)64., F.A.C.]

SECTION V. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.

Appendix ASP, ASP Number 97-B-01 (With Scrivener's Order Dated July 2, 1997).

Appendix CAM, Compliance Assurance Monitoring Plan.

Appendix Hg CEMS - Quality Assurance Plan.

Appendix I, List of Insignificant Emissions Units and/or Activities.

Appendix 40 CFR 60, Subpart A - General Provisions.

Appendix 40 CFR 60, Subpart Da.

Appendix 40 CFR 60, Subpart Y.

Appendix 40 CFR 60, Subpart OOO.

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

Appendix O&M, Operation and Maintenance Plan under RACT for PM.

Appendix Q: Protocol for Startup and Shutdown.

Appendix RR, Facility-wide Reporting Requirements.

Appendix SJRPP, Table 6 (Revised): Parts A and, B and C.

Appendix TR, Facility-wide Testing Requirements.

Appendix TV, Title V General Conditions.

Appendix U, List of Unregulated Emissions Units and/or Activities.

APPENDIX HG CEMS - QUALITY ASSURANCE PLAN

Mercury CEMS Quality Assurance Plan

JEA

Northside Generating Station

Units 1 and 2

Jacksonville, Florida

ORIS: 000667

Revision Number: 1.1

APPENDIX SJRPP: TABLE 6 (REVISED): PARTS A, B, AND C.

Table 6 (Revised): Parts A, B, and C, are attached individually.

TABLE H

PERMIT HISTORY/ID NUMBER CHANGES

Relevant Permits Issued & Projects:

E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type
All	Facility	0310045-001-AV	01/01/1999	12/31/2003	Initial
All	Facility	0310045-011-AV	01/01/2004	12/31/2008	1 st Renewal
All	Facility	0310045-016-AV	06/20/2006	NA	Revision
All	Facility	0310045-020-AV ⁴	01/01/2009	12/31/2013	2 nd Renewal
		0310045-028-AV	pending	pending	Revision
-016, -017	SJRPP: SCR on Boiler Nos. 1 & 2	0310045-017-AC	02/28/2007	06/30/2009	Construction (mod.)
		-018-AV	Subsumed into -020-AV	Subsumed into -020-AV	Revision (CAIR)
		0310045-019-AV	Withdrawn	Withdrawn	Revision (CAMR)
-029, -031	NGS: Material Handling Operations	0310045-021-AC/PSD-FL-265D	11/10/2008	NA	Construction (mod.)
-027, -026	NGS: CFB Units 1 & 2 - Spray Dryer Absorber Maintenance	0310045-022-AC/PSD-FL-265E	02/06/2009	NA	Construction (mod.)
-027, -026	NGS: CFB Units 1 & 2 Fuel Additives - Generic Emissions Unit Exemption	0310045-023-AC/PSD-FL-265F	11/20/2008	NA	Construction (mod.)
-016, -017	SJRPP: Natural Gas Igniters/Fuel Oil Igniters on Boiler Nos. 1 & 2	0310045-024-AC/PSD-FL-010H	11/21/2008	NA	Construction (mod.)
-016, -017	SJRPP: SCR on Boiler Nos. 1 & 2	0310045-025-AC (Extends 0310045-017-AC)	06/04/2009	12/31/2009	NA
-003	NGS: Unit 3 Revised Refurbishment Project	0310045-026-AC	02/09/2010	09/01/2011	Construction (mod.)
-027, -026	NGS: CFB Units 1 & 2 Landfill Gas Combustion	0310045-027-AC	pending	06/30/2011	Construction (mod.)
-016, -017	SJRPP: Boiler Nos. 1 & 2 Natural Gas Combustion	0310045-029-AC/PSD-FL-010I	07/08/2010	06/30/2011	Construction (mod.)
-016, -017	Revision to incorporate Permit No. 0310045-029-AC/PSD-FL-010I	NA	Subsumed into -028-AV	Subsumed into -028-AV	Revision
-022	SJRPP: Bottom Ash, Fly Ash and Gypsum Handling and Storage Operations	PSD-FL-010/PA 81-13	03/12/1982; 10/28/1986	NA	Construction (mod.)
		0310045-012-AC/PSD-FL-010E	11/04/2003	12/31/2008	Construction (mod.)
		0310045-015-AC/PSD-FL-010G	04/07/2006	12/31/2008	Construction (mod.)
		0310045-016-AV	06/20/2006	12/31/2008	Revision
-023	SJRPP: Fuel and Limestone Handling and	0310045-015-AC/PSD-FL-010G	04/07/2006	12/31/2008	Construction

TABLE H
PERMIT HISTORY/ID NUMBER CHANGES

	Storage Operations				(mod.)
		0310045-016-AV	06/20/2006	12/31/2008	Revision
-026	NGS Circulating Fluidized Bed (CFB) Boiler No. 2	0310045-003-AC/PSD-FL-265	05/25/2001	05/25/2006	Construction (new)
		0310047-007-AC/PSD-FL-265A	04/25/2002	12/31/2003	Construction (mod.)
		0310045-012-AC/PSD-FL-265B	11/04/2003	12/31/2008	Construction (mod.)
		0310045-015-AC/PSD-FL-265C	04/07/2006	12/31/2008	Construction (mod.)
		0310045-016-AV	06/20/2006	12/31/2008	Revision
-027	NGS CFB Boiler No. 1	0310045-003-AC/PSD-FL-265	05/25/2001	05/25/2006	Construction (new)
		0310047-007-AC	04/25/2002	12/31/2003	Construction (mod.)
		0310045-012-AC/PSD-FL-265B	11/04/2003	12/31/2008	Construction (mod.)
		0310045-015-AC/PSD-FL-265C	04/07/2006	12/31/2008	Construction (mod.)
		0310045-016-AV	06/20/2006	12/31/2008	Revision
-044 thru -050	STI Operations ³	0310045-016-AV	06/20/2006	12/31/2008	Revision
-016 & -017	SJRPP Boiler Nos. 1 & 2	PA 81-13			

¹ St. Johns River Power Park (SJRPP).

² Northside Generating Station (NGS) Combustion Turbine (CT).

³ Separations Technology, LLC (ST)

⁴ the most recently posted Title V permit on the web site.

"NA" represents not applicable.

Friday, Barbara

To: chanjm@jea.com
Cc: Gianazza, N. Bert; 'dbuff@golder.com'; 'KKosky@Golder.com'; Halpin, Mike; Kirts, Christopher; ROBINSON@coj.net; abrams.heather@epamail.epa.gov; 'Forney.Kathleen@epamail.epa.gov'; Gibson, Victoria; Walker, Elizabeth (AIR); Sheplak, Scott
Subject: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV
Attachments: 0310045-027-AC&028-AVsignedcoverletterandintenttoissue(revsided).pdf

Dear Sir/ Madam:

Attached is the official **Written Notice of Intent to Issue Air Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Attention: Scott Sheplak

Owner/Company Name: JEA
Facility Name: NORTHSIDE/SJRPP
Project Number: 0310045-027-AC/0310045-028-AV
Permit Status: DRAFT CONSTRUCTION - REVISED DRAFT/PROPOSED TITLE V
Permit Activity: PERMIT REVISION
Facility County: DUVAL

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0310045.027.AC.R_pdf.zip

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0310045.028.AV.R_pdf.zip

“The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the “*Air Permit Documents Search*” website at <http://www.dep.state.fl.us/air/emission/apds/default.asp> . “

Permit project documents that are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation.

Barbara Friday
Bureau of Air Regulation

Friday, Barbara

From: Chansler, James M. - Chief Operating Officer [ChanJM@jea.com]
To: Friday, Barbara
Sent: Friday, October 08, 2010 10:57 AM
Subject: Read: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP)
SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Your message was read on Friday, October 08, 2010 10:56:30 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Gianazza, N. Bert [GianNB@jea.com]
To: Friday, Barbara
Sent: Monday, October 11, 2010 10:51 AM
Subject: Read: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP)
SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Your message was read on Monday, October 11, 2010 10:50:33 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Mail Delivery System [MAILER-DAEMON@mx1.golder.com]
To: KKosky@Golder.com; dbuff@golder.com
Sent: Friday, October 08, 2010 10:55 AM
Subject: Relayed: JEA - NORTHSIDE AND ST JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

KKosky@Golder.com

dbuff@golder.com

Subject: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Friday, Barbara

From: Kosky, Ken [Ken_Kosky@golder.com]
To: Friday, Barbara
Sent: Friday, October 08, 2010 11:03 AM
Subject: Read: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP)
SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Your message was read on Friday, October 08, 2010 11:02:49 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Buff, Dave [DBuff@GOLDER.com]
To: Friday, Barbara
Sent: Friday, October 08, 2010 10:57 AM
Subject: Read: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP)
SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Your message was read on Friday, October 08, 2010 10:56:41 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Microsoft Exchange
To: 'ROBINSON@coj.net'
Sent: Friday, October 08, 2010 10:57 AM
Subject: Relayed: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

'ROBINSON@coj.net'

Subject: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Sent by Microsoft Exchange Server 2007

Friday, Barbara

From: Robinson, Richard [ROBINSON@coj.net]
Sent: Friday, October 08, 2010 10:57 AM
To: Friday, Barbara
Subject: Out of Office AutoReply: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

I will be out of the office 10/8 through 10/12. If you need immediate assistance please e-mail Gloria Hunter-Barnes at GLORIA@coj.net.

Friday, Barbara

From: Robinson, Richard [ROBINSON@coj.net]
Sent: Wednesday, October 13, 2010 4:09 PM
Subject: Read: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP)
SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Your message was read on Wednesday, October 13, 2010 4:09:24 PM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Microsoft Exchange
To: Kirts, Christopher; Halpin, Mike; Gibson, Victoria
Sent: Friday, October 08, 2010 10:54 AM
Subject: Delivered: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Your message has been delivered to the following recipients:

Kirts, Christopher

Halpin, Mike

Gibson, Victoria

Subject: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Sent by Microsoft Exchange Server 2007

Friday, Barbara

From: Kirts, Christopher
To: Friday, Barbara
Sent: Friday, October 08, 2010 1:27 PM
Subject: Read: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP)
SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Your message was read on Friday, October 08, 2010 1:26:44 PM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Gibson, Victoria
To: Friday, Barbara
Sent: Friday, October 08, 2010 11:05 AM
Subject: Read: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP)
SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Your message was read on Friday, October 08, 2010 11:05:04 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Halpin, Mike
Sent: Friday, October 08, 2010 11:00 AM
To: Friday, Barbara
Subject: Delivered: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV
Attachments: ATT00001

Your message was delivered to the recipient.

Friday, Barbara

From: Halpin, Mike
To: Friday, Barbara
Sent: Friday, October 08, 2010 11:08 AM
Subject: Read: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP)
SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Your message was read on Friday, October 08, 2010 11:08:27 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Mail Delivery System [MAILER-DAEMON@mseive02.rtp.epa.gov]
To: Forney.Kathleen@epamail.epa.gov; abrams.heather@epamail.epa.gov
Sent: Friday, October 08, 2010 10:55 AM
Subject: Relayed: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

Forney.Kathleen@epamail.epa.gov

abrams.heather@epamail.epa.gov

Subject: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Friday, Barbara

From: Microsoft Exchange
To: Walker, Elizabeth (AIR); Sheplak, Scott
Sent: Friday, October 08, 2010 10:54 AM
Subject: Delivered: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Your message has been delivered to the following recipients:

Walker, Elizabeth (AIR)

Sheplak, Scott

Subject: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP) SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Sent by Microsoft Exchange Server 2007

Friday, Barbara

From: Sheplak, Scott
To: Friday, Barbara
Sent: Tuesday, October 12, 2010 11:42 AM
Subject: Read: JEA - NORTHSIDE AND ST. JOHNS RIVER POWER PARK (NGS/SJRPP)
SEPARATIONS TECHNOLOGY, LLC (ST) FACILITY; 0310045-027-AC/0310045-028-AV

Your message was read on Tuesday, October 12, 2010 11:42:09 AM (GMT-05:00) Eastern Time (US & Canada).