

PERMITTEE

Jacksonville Electric Authority (JEA)
21 West Church Street
Jacksonville, Florida 32202

Authorized Representative:

Mr. Michael J. Brost
Vice President – Electric System

Air Permit No. 0310045-029-AC
Permit Expires: June 30, 2011
Minor Air Construction Permit
St. Johns River Power Park (SJRPP)
Units 1 and 2
Continuous Use of Natural Gas

PROJECT

This is the final air construction permit, which authorizes Units 1 and 2 to fire natural gas on a continuous basis during normal operations. The proposed project will be conducted at the existing SJRPP, which is an electrical generating facility categorized under Standard Industrial Classification No. 4911. The existing facility is located in Duval County at 11201 New Berlin Road, Jacksonville, Florida. The UTM coordinates are Zone 17, 446.90 km East and 3359.15 km North.


This final permit is organized into the following sections: Section 1 (General Information), Section 2 (Administrative Requirements), Section 3 (Emissions Unit Specific Conditions), and Section 4 (Appendices).

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, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Joseph Kahn, Director
Division of Air Resource Management



Effective Date

FINAL PERMIT

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) 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 7/9/10 to the persons listed below.

Mr. Michael J. Brost, P.E., D.P.A., JEA (brosmj@jea.com)
Mr. Bert Gianazza, P.E., JEA (giannb@jea.com)
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Ms. Heather Abrams, EPA Region 4 (abrams.heather@epa.gov)
Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)
Ms. Vickie Gibson, DEP BAR Reading File (victoria.gibson@dep.state.fl.us)

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)

7/9/10
(Date)

SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

The existing facility consists of the following emissions units.

Facility ID No. 0310045	
ID No.	Emission Unit Description
<i>SJRPP Regulated Emissions Units</i>	
016	Unit 1
017	Unit 2
022	Bottom Ash, Fly Ash and Gypsum Handling and Storage Operations
023	Fuel and Limestone Handling and Storage Operations
024	Cooling Towers
<i>Unregulated Emissions Units</i>	
019-021	Diesel and Gasoline Storage Tanks

PROJECT DESCRIPTION

This project authorizes the continuous firing of natural gas in existing Units 1 and 2 during normal operations. The project is not subject to PSD preconstruction review because there will be no significant emissions increases for any pollutant. The proposed project will not change the applicability of any existing state or federal requirements which apply to the existing authorized fuels. The units were originally subject to the federal New Source Performance Standards in Subpart Da, Part 60, Title 40 of the Code of Federal Regulations; therefore, the permit specifies the original standard for nitrogen oxides (NO_x) for firing natural gas as well as the method for prorating the NO_x standard when firing multiple fuels.

This project will modify the following emissions units.

Facility ID No. 0310045	
ID No.	Emission Unit Description
016	Unit 1
017	Unit 2

REGULATORY CLASSIFICATION

- The existing facility is a major source of hazardous air pollutants (HAP).
- The existing facility operates units subject to the acid rain provisions of the Clean Air Act.
- The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The existing facility is a major source of air pollution in accordance with Rule 62-212.400(PSD), F.A.C.
- Units 1 and 2 are subject to applicable provisions in NSPS Subpart Da of 40 CFR 60.
- The facility operates existing Boilers Units 1 and 2, which are subject to the Clean Air Interstate Rule (CAIR) in accordance with 40 CFR 96.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, operate or modify emissions unit shall be submitted to the Bureau of Air Regulation, Florida Department of Environmental Protection (Department), at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of all such documents shall also be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Duval County Environmental and Compliance Department, Environmental Quality Division, 407 North Laura Street, 3rd Floor, Jacksonville, Florida 32202 and Telephone Number 904-255-7100 and Telephone Number 904-630-3484.
3. Appendices: The following appendices are attached as part of this permit: Appendix A (Citation Formats and Glossary of Common Terms) and Appendix B (General Conditions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions unit 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, 62-214, 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. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C., and follow the application procedures in Chapter 62-4, F.A.C. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. Construction and Expiration: The Department may extend the expiration date upon a satisfactory showing that an extension is justified. Such a request shall be submitted to the Department's Bureau of Air Regulation at least 60 days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, 62-210.300(1) and 62-212.400(12), F.A.C.]
6. 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.]
7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. This permit authorizes construction of the referenced facilities. [Chapters 62-210 and 62-212, F.A.C.]
8. 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. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNITS SPECIFIC CONDITIONS

Boiler Units 1 and 2 (EU-016 and EU-017)

The specific conditions of this subsection apply to the following emissions units after the authorized work is completed.

EU ID	Emissions Unit Description
016	Boiler Unit 1
017	Boiler Unit 2

EXISTING PERMITS

1. Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for these emissions units. Unless otherwise specified, these conditions are in addition to all other applicable permit conditions and regulatory requirements. The permittee shall continue to comply with the conditions of those permits, which include restrictions and standards regarding capacities, production, operation, fuels, emissions, monitoring, recordkeeping, reporting, etc. [Rule 62-4.070(3), F.A.C.]

METHODS OF OPERATION

2. Natural Gas Firing: The permittee is authorized to continuously fire natural gas in Units 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 million British thermal units per hour (MMBtu/hour).

{Permitting Note: Natural gas firing will only achieve approximately 11% of full load operation. Other authorized fuels will be co-fired with natural gas to achieve full load operation.}

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EMISSION LIMITATIONS AND STANDARDS

3. Nitrogen Oxides (NO_x): On and after the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whichever date comes first, 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)]
4. Nitrogen Oxides (NO_x): When two or more fuels are combusted simultaneously, the applicable standard is determined by proration using the following formula:

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

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;

SECTION 3. EMISSIONS UNITS SPECIFIC CONDITIONS

Boiler Units 1 and 2 (EU-016 and EU-017)

- 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)]

COMPLIANCE PROVISIONS

5. Compliance Demonstrations: The owner or operator of an affected facility subject to emission limitations in this subpart shall determine compliance as follows: Compliance with applicable 30-day rolling average NO_x emission limitations is determined by calculating the arithmetic average of all hourly emission rates for NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction. [40 CFR 60.48Da(g)(1)]
6. Natural Gas Firing: The permittee shall maintain sufficient records to document the firing of natural gas. [Rule 62-4.070(3), F.A.C.]

SECTION 4. APPENDICES

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Appendix A. Citation Formats and Glossary of Common Terms

Appendix B. General Conditions

SECTION 4. APPENDIX A

Citation Formats and Glossary of Common Terms

CITATION FORMATS

The following illustrate the formats used in the permit to identify applicable requirements from permits and regulations.

Old Permit Numbers

Example: Permit No. AC50-123456 or Permit No. AO50-123456

Where: “AC” identifies the permit as an Air Construction Permit
“AO” identifies the permit as an Air Operation Permit
“123456” identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: “099” represents the specific county ID number in which the project is located
“2222” represents the specific facility ID number for that county
“001” identifies the specific permit project number
“AC” identifies the permit as an air construction permit
“AF” identifies the permit as a minor source federally enforceable state operation permit
“AO” identifies the permit as a minor source air operation permit
“AV” identifies the permit as a major Title V air operation permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: “PSD” means issued pursuant to the preconstruction review requirements of the Prevention of Significant Deterioration of Air Quality
“FL” means that the permit was issued by the State of Florida
“317” identifies the specific permit project number

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

GLOSSARY OF COMMON TERMS

° F: degrees Fahrenheit

AAQS: Ambient Air Quality Standard

acf: actual cubic feet

acfm: actual cubic feet per minute

ARMS: Air Resource Management System (DEP database)

BACT: best available control technology

bhp: brake horsepower

Btu: British thermal units

CAM: compliance assurance monitoring

CEMS: continuous emissions monitoring system

cfm: cubic feet per minute

SECTION 4. APPENDIX A

Citation Formats and Glossary of Common Terms

CFR: Code of Federal Regulations	NESHAP: National Emissions Standards for Hazardous Air Pollutants
CAA: Clean Air Act	NO_x: nitrogen oxides
CMS: continuous monitoring system	NSPS: New Source Performance Standards
CO: carbon monoxide	O&M: operation and maintenance
CO₂: carbon dioxide	O₂: oxygen
COMS: continuous opacity monitoring system	Pb: lead
DARM: Division of Air Resource Management	PM: particulate matter
DEP: Department of Environmental Protection	PM₁₀: particulate matter with a mean aerodynamic diameter of 10 microns or less
Department: Department of Environmental Protection	ppm: parts per million
dscf: dry standard cubic feet	ppmv: parts per million by volume
dscfm: dry standard cubic feet per minute	ppmvd: parts per million by volume, dry basis
EPA: Environmental Protection Agency	QA: quality assurance
ESP: electrostatic precipitator (control system for reducing particulate matter)	QC: quality control
EU: emissions unit	PSD: prevention of significant deterioration
F.A.C.: Florida Administrative Code	psi: pounds per square inch
F.A.W.: Florida Administrative Weekly	PTE: potential to emit
F.D.: forced draft	RACT: reasonably available control technology
F.S.: Florida Statutes	RATA: relative accuracy test audit
FGD: flue gas desulfurization	RBLC: EPA's RACT/BACT/LAER Clearinghouse
FGR: flue gas recirculation	SAM: sulfuric acid mist
Fl: fluoride	scf: standard cubic feet
ft²: square feet	scfm: standard cubic feet per minute
ft³: cubic feet	SIC: standard industrial classification code
gpm: gallons per minute	SIP: State Implementation Plan
gr: grains	SNCR: selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)
HAP: hazardous air pollutant	SO₂: sulfur dioxide
Hg: mercury	TPD: tons/day
I.D.: induced draft	TPH: tons per hour
ID: identification	TPY: tons per year
kPa: kilopascals	TRS: total reduced sulfur
lb: pound	UTM: Universal Transverse Mercator coordinate system
MACT: maximum achievable technology	VE: visible emissions
MMBtu: million British thermal units	VOC: volatile organic compounds
MSDS: material safety data sheets	
MW: megawatt	

SECTION 4. APPENDIX B

General Conditions

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are “permit conditions” and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of noncompliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

SECTION 4. APPENDIX B

General Conditions

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.
11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (not applicable);
 - b. Determination of Prevention of Significant Deterioration (not applicable); and
 - c. Compliance with New Source Performance Standards (applicable).
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - (a) The date, exact place, and time of sampling or measurements;
 - (b) The person responsible for performing the sampling or measurements;
 - (c) The dates analyses were performed;
 - (d) The person responsible for performing the analyses;
 - (e) The analytical techniques or methods used;
 - (f) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

