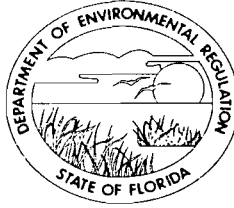


STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. Royce Lyles
Managing Director
Jacksonville Electric Authority
233 West Duval Street
Jacksonville, Florida 32202

January 15, 1986

Enclosed are Permit Numbers AC 16-108824 and AC 16-109082 to Jacksonville Electric Authority which authorize the construction of two temporary boilers at the applicant's Southside facility in Jacksonville, Duval County, Florida. These permits are issued pursuant to Section 403, Florida Statutes.

Any Party to these permits has the right to seek judicial review of the permits pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date these permits are filed with the clerk of the Department.

Sincerely,

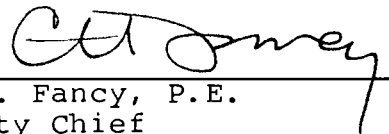
C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Enclosure

cc: Richard Breitmoser, JEA
Johnny Cole, NE District
Jerry Woosley, BES

CERTIFICATION

This is to certify that the foregoing Notice of Permit and all copies requested were mailed before the close of business on 16 JANUARY, 1986.



C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management
2600 Blair Stone Road
Tallahassee, Florida 32301

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to
§120.52(9), Florida Statutes, with
the designated Department Clerk,
receipt of which is hereby
acknowledged.

Patricia G. Adams
Clerk

Jan. 16, 1986
Date

Final Determination

Jacksonville Electric Authority
Jacksonville, Florida
Duval County

Permit Number:
AC 16-108824
AC 16-109082

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

January 3, 1986

Final Determination

Jacksonville Electric Authority's application for permits to construct temporary auxiliary boilers A & B at their existing Southside facility in Duval County, Florida, has been reviewed by the Central Air Permitting Staff under the Bureau of Air Quality Management.

Public Notice of the department's Intent to Issue the construction permit was published in the Florida Times Union on October 23, 1985.

Final action of the department is based on review and comment of the interested public and affected interests. Copies of the Preliminary Determination have been available for public inspection at three locations: DER's Bureau of Air Quality Management in Tallahassee, DER's Northeast District office in Jacksonville, and the city of Jacksonville Bio-Environmental Services Division. Comments were received from the city of Jacksonville BESD (see attached).

Comments received from the city of Jacksonville (BESD) will be incorporated into the issued permit.

Attachments:

1. Proof of Publication - Public Notice
2. Comment letter: City of Jacksonville (BESD) - Dated October 29, 1985.

DEPARTMENT OF HEALTH, WELFARE
& BIO-ENVIRONMENTAL SERVICES
Bio-Environmental Services Division
Air and Water Pollution Control



October 29, 1985

Mr. Clair Fancy, P.E.
Florida Department of Environmental Regulation
2600 Blairstone Road
Tallahassee, FL 32301

Re: Jacksonville Electric Authority
Southside Generating Station
Temporary Boilers A & B

Dear Mr. Fancy:

The following comments are provided concerning the captioned items:

- (1) Condition No. 9 should be added as follows:
"Fuel oil analysis (% sulfur by weight) shall be performed in accordance with ASTM Method D2622-82 Sulfur in Petroleum Products (X-RAY Spectrographic Method) or other applicable ASTM Method".
- (2) Virgin oil should be defined. The following is suggested:
Virgin (New) Oil - Any oil or petroleum liquid, no fraction of which has been processed or refined more than once, and no fraction of which has previously been used in any application.

Your consideration of the above is requested.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Jerry E. Woosley".

Jerry E. Woosley
Associate Engineer

cc: Mr. Mort Benjamin, DER
BESD File 1690 M

JEW/bgm



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE: Jacksonville Electric Authority
233 West Duval Street
Jacksonville, Florida 32202

Permit Number: AC 16-108824
Expiration Date: December 31, 1986
County: Duval
Latitude/Longitude: 30° 18' 57" N/
81° 38' 56" W

Project: Oil/Gas Fired Temporary
Auxiliary Boiler A,
6.1 MMBtu/hr

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the construction of an oil (or natural gas) fired temporary auxiliary boiler "A" at the JEA's Southside Station located in Jacksonville, Florida.

Construction shall be in accordance with the attached permit application except as otherwise noted on pages 5-7, Specific Conditions.

Attachments:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16), received on August 26, 1985.
2. A BACT determination made by DER.
3. C. H. Fancy's Letter (DER), dated September 4, 1985.
4. Richard Breitmoser's letter (JEA), received September 5, 1985.

PERMITTEE: Jacksonville Electric Authority Permit Number: AC 16-108824
Expiration Date: December 31, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor 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 does not constitute 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 the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does 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, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-108824
Expiration Date: December 31, 1986

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or 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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring 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 notify and provide the department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact 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.

PERMITTEE: Jacksonville Electric Authority Permit Number: AC 16-108824
Expiration Date: December 31, 1986

GENERAL CONDITIONS:

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 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 arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

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.

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-108824
Expiration Date: December 31, 1986

GENERAL CONDITIONS:

- b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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:
- the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - 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 that 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 submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. Except as required pursuant to DER's BACT determination, (attachment 2) and these specific conditions, the proposed boiler construction shall be carried out in accordance with the statements in the application submitted by the permittee.
2. The boiler is allowed to fire virgin No. 2 (new) fuel oil (fraction of which has been processed or refined more than once, and no fraction of which has previously been used in any application) or natural gas only with natural gas as the primary fuel. The sulfur content of the No. 2 fuel oil is limited to 0.5 percent by weight.
3. Fuel oil analysis (% sulfur by weight) shall be performed in accordance with ASTM Method D2622-82 "Sulphur in Petroleum Products"

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-108824
Expiration Date: December 31, 1986

SPECIFIC CONDITIONS:

(X-RAY Spectrographic Method) or other applicable ASTM Method. The permittee shall submit all fuel oil analyses (every oil delivery requires a fuel analysis report) with the required visible emissions report to FDER's Northeast District office and that of the Jacksonville Bio-Environmental Services Division (BESD) annually.

4. The visible emissions from the proposed boiler shall not be greater than 15% opacity with up to 40% opacity allowed for not more than two minutes in any one hour. DER Method 9 (17-2.700(6)(a)9, FAC) shall be used for the performance test conducted by the permittee.

5. The test of visible emissions shall be accomplished at 90% to 100% of the design capacity. The permittee shall notify DER's Northeast District and BESD 15 days prior to source testing.

6. The boiler is allowed to operate only when at least one of the main station units at the facility is under stand-by condition.

7. Reasonable precautions to prevent fugitive particulate emissions during construction, such as coating or spraying roads and the construction area, shall be taken by the permittee.

8. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the Department in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (Rule 17-4.09, FAC)

9. To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results and Certificate of Completion, to the Department's District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (Rules 17-4.22 and 17-4.23, FAC)

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-108824
Expiration Date: December 31, 1986

SPECIFIC CONDITIONS:

10. If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (Rule 17-4.10, FAC)

Issued this 9 day of January, 1986

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION



VICTORIA J. TSCHINKEL, Secretary

_____ pages attached

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Jacksonville Electric Authority
233 West Duval Street
Jacksonville, Florida 32202

Permit Number: AC 16-109082
Expiration Date: December 31, 1986
County: Duval
Latitude/Longitude: 30° 18' 57" N/
81° 38' 56" W
Project: Oil/Gas Fired Temporary
Auxiliary Boiler B,
6.1 MMBtu/hr

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the construction of an oil (or natural gas) fired temporary auxiliary boiler "B" at the JEA's Southside Station located in Jacksonville, Florida.

Construction shall be in accordance with the attached permit application except as otherwise noted on pages 5-7, Specific Conditions.

Attachments:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16), received on August 26, 1985.
2. A BACT determination made by DER.
3. C. H. Fancy's Letter (DER), dated 4 September, 1985.
4. Richard Breitmoser's letter (JEA), received 5 September, 1985.

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-109082
Expiration Date: December 31, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor 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 does not constitute 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 the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does 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, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-109082
Expiration Date: December 31, 1986

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or 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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring 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 notify and provide the department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact 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.

PERMITTEE: Jacksonville Electric Authority Permit Number: AC 16-109082
Expiration Date: December 31, 1986

GENERAL CONDITIONS:

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 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 arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

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.

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code rules 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

PERMITTEE: Jacksonville Electric Authority Permit Number: AC 16-109082
Expiration Date: December 31, 1986

GENERAL CONDITIONS:

- b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - 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 that 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 submitted or corrected promptly.

SPECIFIC CONDITIONS:

- 1. Except as required pursuant to DER's BACT determination, (attachment 2) and these specific conditions, the proposed boiler construction shall be carried out in accordance with the statements in the application submitted by the permittee.
- 2. The boiler is allowed to fire virgin No. 2 (new) fuel oil (no fraction of which has been processed or refined more than once, and no fraction of which has previously been used in any application) or natural gas only with natural gas as the primary fuel. The sulfur content of the No. 2 fuel oil is limited to 0.5 percent by weight.
- 3. Fuel oil analysis (% sulfur by weight) shall be performed in accordance with ASTM Method D2622-82 "Sulphur in Petroleum Products"

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-109082
Expiration Date: December 31, 1986

SPECIFIC CONDITIONS:

(X-RAY Spectrographic Method) or other applicable ASTM Method. The permittee shall submit all fuel analysis (every oil delivery requires a fuel analysis report) with the required visible emissions report to FDER's Northeast District office and that of the Jacksonville Bio-Environmental Services Division (BESD) annually.

4. The visible emissions from the proposed boiler shall not be greater than 15% opacity with up to 40% opacity allowed for not more than two minutes in any one hour. DER Method 9 (17-2.700(6)(a)9, FAC) shall be used for the performance test conducted by the permittee.

5. The test of visible emissions shall be accomplished at 90% to 100% of the design capacity. The permittee shall notify DER's Northeast District and BESD 14 days prior to source testing.

6. The boiler is allowed to operate only when at least one of the main station units at the facility is under stand-by condition.

7. Reasonable precautions to prevent fugitive particulate emissions during construction, such as coating or spraying roads and the construction area, shall be taken by the permittee.

8. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the Department in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (Rule 17-4.09, FAC)

9. To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results and Certificate of Completion, to the Department's District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (Rules 17-4.22 and 17-4.23, FAC)

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-109082
Expiration Date: December 31, 1986

SPECIFIC CONDITIONS:

10. If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (Rule 17-4.10, FAC)

Issued this 9 day of January, 1986

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION



VICTORIA J. TSCHINKEL, Secretary

___ pages attached.

Best Available Control Technology (BACT) Determination
Jacksonville Electric Authority
Duval County

The applicant plans to install two (2) 6.1 MM Btu/hr auxillary boilers at their facility in Jacksonville, Florida. The boilers will fire primarily natural gas and use No. 2 fuel oil on a secondary basis. These truck mounted boilers will be used temporarily until a permanent boiler can be installed (Constrution Permit No. AC 86190.)

A BACT determination is required for the source as set forth in the Florida Administrative Code Rule 17-2.600(6) - Emissions Limiting and Performance Standards.

BACT Determination Requested by the Applicant:

Particulate and sulfur dioxide emissions to be controlled by firing of natural gas and low sulfur content distillate fuel oil.

Date of Receipt of a BACT application:

August 26, 1985

Date of Publication in the Florida Administrative Weekly:

September 20, 1985

Review of Group Members:

The determination was based upon comments received from the Stationary Source Control Section and the Northeast District.

Review Determined by DER:

The amount of particulate and sulfur dioxide emissions from the new boilers will be limited by the firing of new [1] No.2 distillate oil having a sulfur content not to exceed 0.5 percent, by weight.

Visible Emissions

Not to exceed 15 percent opacity. 40% opacity is permitted for not more than two minutes in any one hour.

DER Method 9 (17-2.700(6)(a)9, FAC) will be used to determine compliance with the opacity standard.

[1] The term "new" means an oil which has been refined from crude oil and has not been used.

BACT Determination Rationale:

Sulfur in fuel oil is a primary air pollution concern, in that most of the fuel sulfur becomes SO₂ and particulate emissions from oil burning are related to the sulfur content. The department agrees with the applicant's proposal that the firing of natural gas and No.2 distillate oil containing 0.5 percent or less sulfur by weight is BACT for the 6.1 MM Btu/hr boilers.

The term "new oil" disallows the use of re-refined and waste oils, or any non-fossil fuels which were not considered in this BACT analysis.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Recommended By:



C. H. Fancy, P.E., Deputy Bureau Chief

Date: 9-13-85

Approved:

September 16, 1985
Victoria J. Tschinkel, Secretary

Date: Victoria J. Tschinkel

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

October 10, 1985

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Royce Lyles
Managing Director
Jacksonville Electric Authority
233 West Duval Street
Jacksonville, Florida 32202

Dear Mr. Lyles:

Attached is one copy of the Technical Evaluation and Preliminary Determination, and proposed permit to construct two (2) temporary boilers at your existing Southside facility in Jacksonville, Duval County.

Before final action can be taken on your draft permit, you are required by Florida Administrative Code Rule 17-103.150 to publish the attached Notice of Proposed Agency Action in the legal advertising section of a newspaper of general circulation in Duval County no later than fourteen days after receipt of this letter. The department must be provided with proof of publication within seven days of the date the notice is published. Failure to publish the notice may be grounds for denial of the permit.

Please submit, in writing, any comments which you wish to have considered concerning the department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

C. H. Fancy
for C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/pa

Attachments

cc: Richard Breitmoser, JEA
Johnny Cole, NE District
Jerry Woosley, BES

State of Florida
Department of Environmental Regulation
Notice of Proposed Agency Action
on Permit Applications

The Department of Environmental Regulation gives notice of its intent to issue permits to Jacksonville Electric Authority to construct oil/gas fired temporary auxiliary boilers "A" and "B" at their southside station located at 801 Colorado Drive in Jacksonville, Duval County, Florida. A determination of best available control technology (BACT) was required.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period constitutes a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Model Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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

Dept. of Environmental Regulation
Northeast District
3426 Bills Road
Jacksonville, FL 32207

Duval County Dept. of
Health, Welfare, & Bio-
Environmental Services
515 West 6th Street
Jacksonville, FL 32206

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, FL 32301

Any person may send written comments on the proposed action to Mr. Bill Thomas at the department's Tallahassee address.^o All comments mailed within 30 days of the publication of this notice will be considered in the department's final determination.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of an)
Application for Permit by:)
)
Jacksonville Electric Authority) DER File No. AC 16-108824
233 West Duval Street) AC 16-109082
Jacksonville, Florida 32202)

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its Intent to Issue, and proposed order of issuance for, permits pursuant to Chapter 403, Florida Statutes, for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Jacksonville Electric Authority, applied on August 26, 1985, to the Department of Environmental Regulation for permits to construct an oil/gas fired temporary auxiliary boilers "A" and "B" at JEA's Southside Station, 801 Colorado Avenue, Jacksonville, Duval County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The applicant was officially notified by the Department that an air construction permit was required for the proposed work.

This intent to issue shall be placed before the Secretary for final action unless an appropriate petition for a hearing pursuant to the provisions of Section 120.57, Florida Statutes, is filed within fourteen (14) days from receipt of this letter or

publication of the public notice (copy attached) required pursuant to Rule 17-103.150, Florida Administrative Code, whichever occurs first. The petition must comply with the requirements of Section 17-103.155 and Rule 28-5.201, Florida Administrative Code (copy attached) and be filed pursuant to Rule 17-103.155(1) in the Office of General Counsel of the Department of Environmental Regulation at 2600 Blair Stone Road, Tallahassee, Florida 32301.

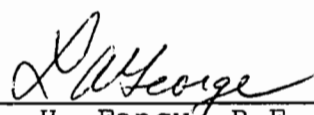
Petitions which are not filed in accordance with the above provisions are subject to dismissal by the Department. In the event a formal hearing is conducted pursuant to Section 120.57(1), all parties shall have an opportunity to respond, to present evidence and argument on all issues involved, to conduct cross-examination of witnesses and submit rebuttal evidence, to submit proposed findings of facts and orders, to file exceptions to any order or hearing officer's recommended order, and to be represented by counsel. If an informal hearing is requested, the agency, in accordance with its rules of procedure, will provide affected persons or parties or their counsel an opportunity, at a convenient time and place, to present to the agency or hearing officer, written or oral evidence in opposition to the agency's action or refusal to act, or a written statement challenging the grounds upon which the agency has chosen to justify its action or inaction, pursuant to Section 120.57(2), Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition, may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Model Rule 28-5.207 at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of

Administrative Hearings, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

Executed the 10th day of October, 1985, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

for 

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copies furnished to:

Mr. Royce Lyles
Jacksonville Electric Authority
233 West Duval Street
Jacksonville, Florida 32202

Mr. Khurshid K. Mehta, P.E.
Duval County Dept. of Health,
Welfare & Bio-Env. Services
515 West 6th Street
Jacksonville, Florida 32206-4397

Mr. Richard Breitmoser, P.E.
Jacksonville Electric Authority
233 West Duval Street
Jacksonville, Florida 32202

CERTIFICATION

This is to certify that the foregoing Intent to Issue and all copies were mailed before the close of business on Oct. 11, 1985.

J. W. George
for C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management
2600 Blair Stone Road
Tallahassee, Florida 32301

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to
§120.52(9), Florida Statutes, with
the designated Department Clerk,
receipt of which is hereby acknow-
ledged.

Patricia K. Adams Oct. 11, 1985
Clerk Date

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

- (1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.
- (2) All petitions filed under these rules should contain:
 - (a) The name and address of each agency affected and each agency's file or identification number, if known;
 - (b) The name and address of the petitioner or petitioners;
 - (c) All disputed issues of material fact. If there are none, the petition must so indicate;
 - (d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;
 - (e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;
 - (f) A demand for the relief to which the petitioner deems himself entitled; and
 - (g) Such other information which the petitioner contends is material.

Preliminary Determination
and
Technical Evaluation

Jacksonville Electric Authority
Temporary Auxiliary Boilers "A" and "B", Southside Station
Duval County, Florida

Permit Number
AC 16-108824
AC 16-109082

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

October 10, 1985

I. Applicant and Source Location

A. Applicant

Jacksonville Electric Authority
233 West Duval Street
Jacksonville, Florida 32202

B. Source Location

The proposed construction of temporary auxiliary boilers "A" and "B" will occur at the JEA's Southside Station located at 801 Colorado Avenue, Jacksonville, Florida. The UTM coordinates are: Zone 17-437.6 km east and 3353.8 km north.

II. Project Description

JEA proposes to construct oil/gas fired temporary auxiliary boilers "A" and "B" with a combined heat input of 12.2 million Btu per hour (6.1 MMBtu separately). These boilers will operate in such manner as to provide steam to facilitate clean start-up of main power boiler(s) on demand. Such on demand start-up of the main boilers will allow them to be on cold shut-down while only the temporary auxiliary boilers remain fired. In as much there is not expected to be an increase in emissions from this facility.

III. Emissions and Controls

No. 2 fuel oil or natural gas (primary fuel) will be fired at the proposed boiler. The maximum sulfur content of the No. 2 fuel oil is 0.5 percent. The maximum possible emissions from the boiler are listed as follows:

<u>Pollutant</u>	<u>lb/hr</u>	<u>T/yr</u>
Sulfur Dioxide, SO ₂	3.2	14
Particulate Matter, PM	0.9	3.9
Nitrogen Oxides, NO _x	0.6	2.7

IV. Rule Applicability

The proposed project is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code (FAC).

The existing facility, at which a new auxiliary boiler will be added, is a major facility located in a nonattainment area for ozone and an attainment area for other pollutants. This facility is within the area of influence of Jacksonville particulate nonattainment area. Since the temporary auxiliary boilers will

operate only in lieu of main units, it will not increase total emissions from the facility. Therefore, the source will not be subject to the Rule 17-2.500 and Rule 17-2.510. The proposed source shall be permitted in accordance with FAC Rule 17-2.600(6), Fossil Fuel Steam Generators with less than 250 million Btu per hour heat input. The rule requires a BACT determination for particulate matter and sulfur dioxide.

V. Control Technology Review

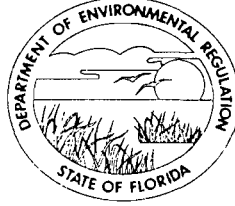
No add on air emission control equipment has been proposed by the applicant for this source. The applicant proposes to use No. 2 fuel oil or natural gas as fuel for air pollution control. The BACT determination made by the department is in agreement with JEA's proposal to control PM and SO₂ emissions from the subject source.

VI. Conclusion

Based on an evaluation of the application, the department believes that compliance with related state air regulations will be achieved provided certain specific conditions are met, as set forth in the attached draft state permits.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE: Jacksonville Electric Authority
233 West Duval Street
Jacksonville, Florida 32202

Permit Number: AC 16-108824
Expiration Date: September 30, 1986
County: Duval
Latitude/Longitude: 30° 18' 57" N/
81° 38' 56" W

Project: Oil/Gas Fired Temporary
Auxiliary Boiler A,
6.1 MMBtu/hr

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the construction of an oil (or natural gas) temporary auxiliary boiler "A" at the JEA's Southside Station located in Jacksonville, Florida.

Construction shall be in accordance with the attached permit application except as otherwise noted on pages 5 and 6, Specific Conditions.

Attachments:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16), received on August 26, 1985.
2. A BACT determination made by DER.
3. C. H. Fancy's Letter (DER), dated September 4, 1985
4. Richard Breitmoser's letter (JEA), received September 5, 1985

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-108824
Expiration Date: September 30, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor 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 does not constitute 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 the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does 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, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-108824
Expiration Date: September 30, 1986

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or 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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring 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 notify and provide the department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact 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.

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-108824
Expiration Date: September 30, 1986

GENERAL CONDITIONS:

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 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 arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

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.

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

PERMITTEE: Jacksonville Electric Authority Permit Number: AC 16-108824
Expiration Date: September 30, 1986

GENERAL CONDITIONS:

- b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - 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 that 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 submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. Except as required pursuant to DER's BACT determination, (attachment 2) and these specific conditions, the proposed boiler construction shall be carried out in accordance with the statements in the application submitted by the permittee.
2. The boiler is allowed to fire virgin No. 2 fuel oil or natural gas only with natural gas as the primary fuel. The sulfur content of the No. 2 fuel oil is limited to 0.5 percent by weight.
3. The visible emissions from the proposed boiler shall not be greater than 15% opacity with up to 40% opacity allowed for not more than two minutes in any one hour. DER Method 9 (17-2.700(6)(a)9, FAC) shall be used for the performance test conducted by the permittee.

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-108824
Expiration Date: September 30, 1986

SPECIFIC CONDITIONS:

4. The permittee shall submit all fuel oil analyses (every oil delivery needs a fuel analysis report) with the required visible emissions test to DER's Northeast District and Jacksonville Bio-Environmental Services Division (BESD) annually.
5. The test of visible emissions shall be accomplished at 90% to 100% of the design capacity. The permittee shall notify DER's Northeast District and BESD 14 days prior to source testing.
6. The boiler is allowed to operate only when at least one of the main station units at the facility is under stand-by condition.
7. Reasonable precautions to prevent fugitive particulate emissions during construction, such as coating or spraying roads and the construction area, shall be taken by the permittee.
8. Prior to 90 days before the expiration of this permit, a complete application for an operating permit shall be submitted to the BESD office. Full operation of the source may then be conducted in compliance with the terms of this permit until expiration of this permit or receipt of an operating permit.

Issued this ____ day of _____, 1985

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

1/2 16-109082 #
AC 16-109082
DER
AUG 20 1985
BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM
GOVERNOR
TODD J. TSCHEK
SECRETARY

APPLICATION TO ~~MODIFY~~/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Oil/Gas Fired Boilers (2) [] New [] Existing
APPLICATION TYPE: [X] Construction [] Operation [] Modification
COMPANY NAME: Jacksonville Electric Authority COUNTY: Duval

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Temp. Aux. Boilers (A, B)

SOURCE LOCATION: Street 801 Colorado Avenue City Jacksonville
UTM: East 437.64 North 3353.82
Latitude 30° 18' 57" N Longitude 81° 38' 56" W

APPLICANT NAME AND TITLE: Royce Lyles, Managing Director
APPLICANT ADDRESS: 233 West Duval Street, Jacksonville, Florida 32202

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative of Jax. Electric Authority

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

Attach letter of authorization

Signed: Royce Lyles
Royce Lyles, Managing Director
Name and Title (Please Type)

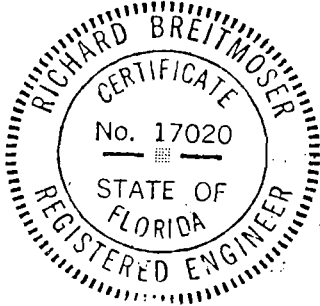
Date: 8/22/88 Telephone No. (904) 633-4780

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed [Signature]

Richard Breitmoser

Name (Please Type)

Jacksonville Electric Authority

Company Name (Please Type)

P. O. Box 53015, Jacksonville, Fla. 32201

Mailing Address (Please Type)

Florida Registration No. 17020 Date: 2/22/85 Telephone No. (904) 633-4517

SECTION II: GENERAL PROJECT INFORMATION

- A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Proposed unit is a portable, truck bed-mounted boiler room for temporary standby auxiliary service during outage of main generating units.

Primary use will be to maintain residual (#6) fuel temperature for main unit startup.

- B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction 9-1-85 Completion of Construction 3-1-86

- C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Pollution control will be achieved by firing with premium fuels - natural gas (primary) and No. 2 fuel oil (secondary)

- D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

This unit will operate during outages of:

SS No. 4 (AO 16-19287), Reapplication submitted

SS No. 5 (AO 16-59262), Rev. 6/16/83, Exp. 8/31/87

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;
 if power plant, hrs/yr _____; if seasonal, describe: These units will operate only in a standby mode to provide essential steam services when main generating units are on cold standby. It is estimated that each boiler will operate less than 40 percent of the time on an annual basis, but may be required full time in fall and winter and prior to startup of main generating units.

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO**
 a. If yes, has "offset" been applied? NO
 b. If yes, has "Lowest Achievable Emission Rate" been applied? YES
 c. If yes, list non-attainment pollutants. Particulate Matter

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. YES

3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO

a. If yes, for what pollutants? N/A

b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

The two units, each capable of approximately 6.1 MMBtu/hr (12.2 MMBtu/hr total), operate in lieu of the main station generating units, the smallest of which is 380 MMBtu/hr. Emissions from the facility will always be less when the proposed units are in operation than emissions from the unmodified facility. Particulate emissions from the proposed premium fuels will be so low as to constitute LAER. The proposed modification is configured so as not to interfere with reasonable progress toward attainment (17-2.520(3)(b)).

** Proposed source is in an area of influence of a non-attainment area.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: N/A

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

No. 2 fuel oil (maximum) emissions for each unit (A, B)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	* Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/xx hr	T/yr	
SO2	3.2	5.62	17-2.600(6)(a)	BACT, 3.2	6.7	11.73	Flue Gas
Particulate	0.1	0.16	17-2.600(6)(b)	BACT, 0.1	0.6	0.97	"
Visible Emissions	-	-	17-2.600(6)(a)	**20%	-	-	"

¹See Section V, Item 2. Calculated on a basis of 40% L.F., 0.5% S and AP-42 Emissions estimates

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

SO2 = 142 S/Kgal, @ 135 K BTU/gal = 1.055/MMBTU: 1.05 X 0.5 X 6.1 = 3.2 lb/hr
 TSP = 2 lb/K gal, @ 135 K BTU/gal = 0.015 lb/MMBTU: 0.015 X 6.1 = 0.1 lb/hr

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: N/A

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

No. 2 fuel oil (maximum) emissions for each unit (A, B)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	* Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SO2	3.2	5.62	17-2.600(6)(c)	BACT, 3.2	6.7	11.73	Flue Gas
Particulate	0.1	0.16	17-2.600(6)(b)	BACT, 0.1	0.6	0.97	"
Visible Emissions	-	-	17-2.600(6)(a)	**20%	-	-	"

¹See Section V, Item 2. Calculated on a basis of 40% L.F., 0.5% S and AP-42 Emissions estimates

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2, Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

SO2 = 142 S/Kgal, @ 135 K BTU/gal = 1.055/MMBTU: 1.05 X 0.5 X 6.1 = 3.2 lb/hr

TSP = 2 lb/K gal, @ 135 K BTU/gal = 0.015 lb/MMBTU: 0.015 X 6.1 = 0.1 lb/hr

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: N/A

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

No. 2 fuel oil (maximum) emissions for each unit (A, B)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	* Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SO2	3.2	5.62	17-2,600(6)(c)	BACT, 3.2	6.7	11.73	Flue Gas
Particulate	0.1	0.16	17-2,600(6)(b)	BACT, 0.1	0.6	0.97	"
Visible Emissions	-	-	17-2,600(6)(a)	**20%	-	-	"

¹See Section V, Item 2. Calculated on a basis of 40% L.F., 0.5% S and AP-42 Emissions estimates

²Reference applicable emission standards and units (e.g. Rule 17-2,600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

SO2 = 142 S/Kgal, @ 135 K BTU/gal = 1.055/MMBTU: 1.05 X 0.5 X 6.1 = 3.2 lb/hr

TSP = 2 lb/K gal, @ 135 K BTU/gal = 0.015 lb/MMBTU: 0.015 X 6.1 = 0.1 lb/hr

D. Control Devices: (See Section V, Item 4) None Available

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels (Totals for both units)

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
No. 2 Fuel Oil	20	(2 X 45 =) 90	(2 X 6.1 =) 12.2
or			
Natural Gas	2,700 CFH	(2 X 6,100 =) 12,200 CFH	(2 X 6.1 =) 12.2

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: No. 2 Fuel Oil/Natural Gas

Percent Sulfur: FO - < 0.5/NG - 0.0035 Percent Ash: FO - < 0.01/NG - 0.000

Density: FO - 6.8 (+) / NG---- lbs/gal Typical Percent Nitrogen: FO - 0.1/NG - 0.4

Heat Capacity: FO - 19,500 (+) BTU/lb FO - 135,000 (+)/NG - 1,000 BTU/(Vol.)
BTU/CF

Other Fuel Contaminants (which may cause air pollution): None known

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average 10 Maximum 30

G. Indicate liquid or solid wastes generated and method of disposal.

Boiler blowdown and water softener regeneration wastewaters to be
discharged to existing regulated and/or permitted facilities, as
applicable.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 16 ft ea ft. Stack Diameter: 1'-4" ea ft.
 Gas Flow Rate: 2100 ea ACFM 1080 ea DSCFM Gas Exit Temperature: 400-450 °F.
 Water Vapor Content: 12.5 (vol) % Velocity: 25 FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer: _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: N/A

Ultimate disposal of any effluent other than that omitted from the stack (scrubber water, ash, etc.):

N/A

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.09. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
Sulfur Dioxide	3.2 lb/hr max.
Particulate Matter	0.1 lb/hr max.

D. Describe the ~~existing~~ ^{proposed} control and treatment technology (if any).

- | | |
|---|---|
| 1. Control Device/System:
Positioning fuel/air proportioning with oxygen trim; | 2. Operating Principles:
fuel sulfur spec. |
| 3. Efficiency:° N/A | 4. Capital Costs:
Included in boiler cost |

Explain method of determining

5. Useful Life: Temporary Rental

6. Operating Costs: Savings

7. Energy: Net energy reduction

8. Maintenance Cost: minimal - \$1000/yr

9. Emissions:

Contaminant	Rate or Concentration
Sulfur Dioxide	3.2 lb/hr max.
Particulate Matter	0.1 lb/hr max.

10. Stack Parameters

a. Height: 16

b. Diameter: 1'-4"

Ft.

c. Flow Rate: 2100

d. Temperature: 450

°F.

e. Velocity: 25

FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). No known control technologies are used on units of this type, size and fuel.

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

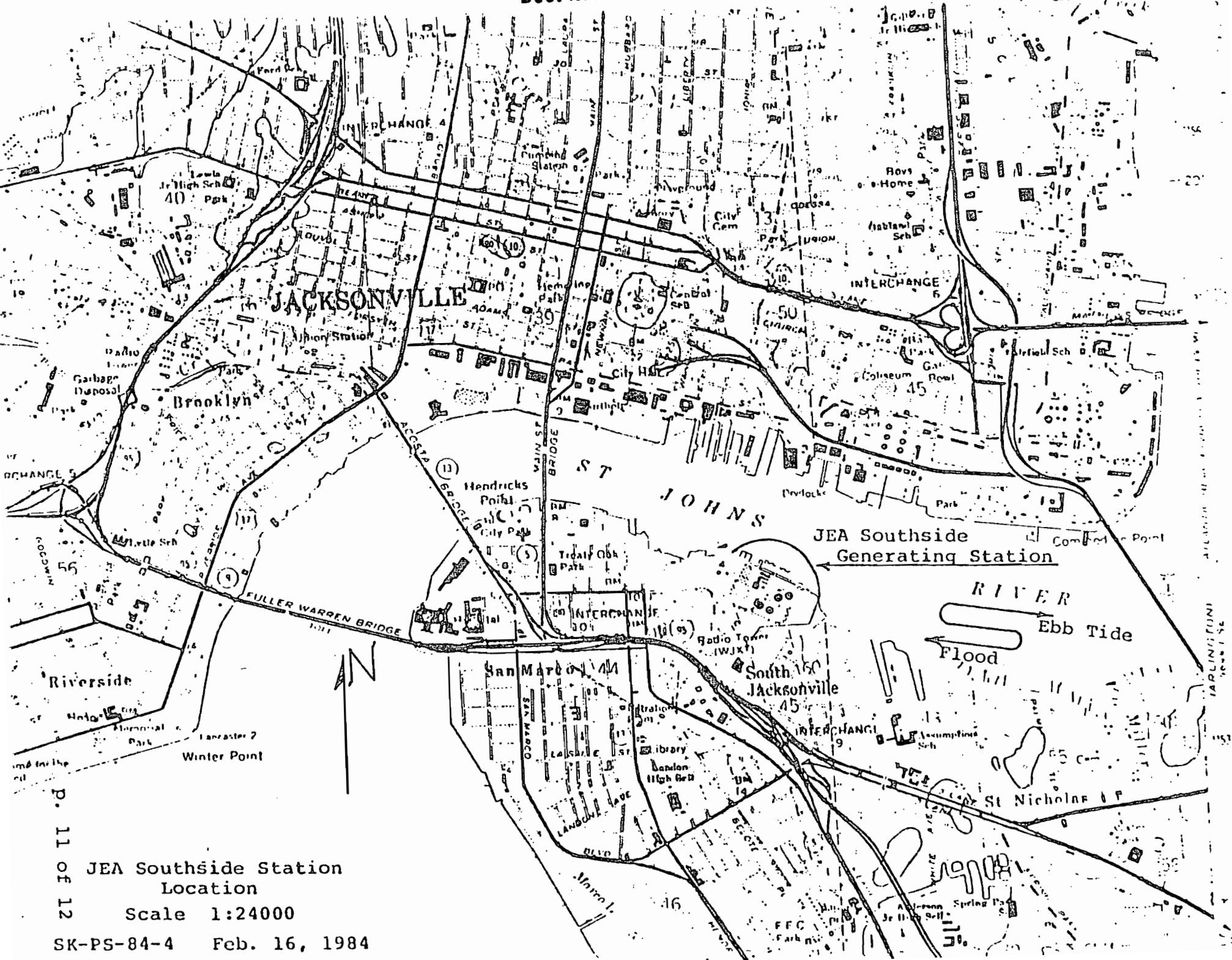
- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

* Explain method of determining efficiency.

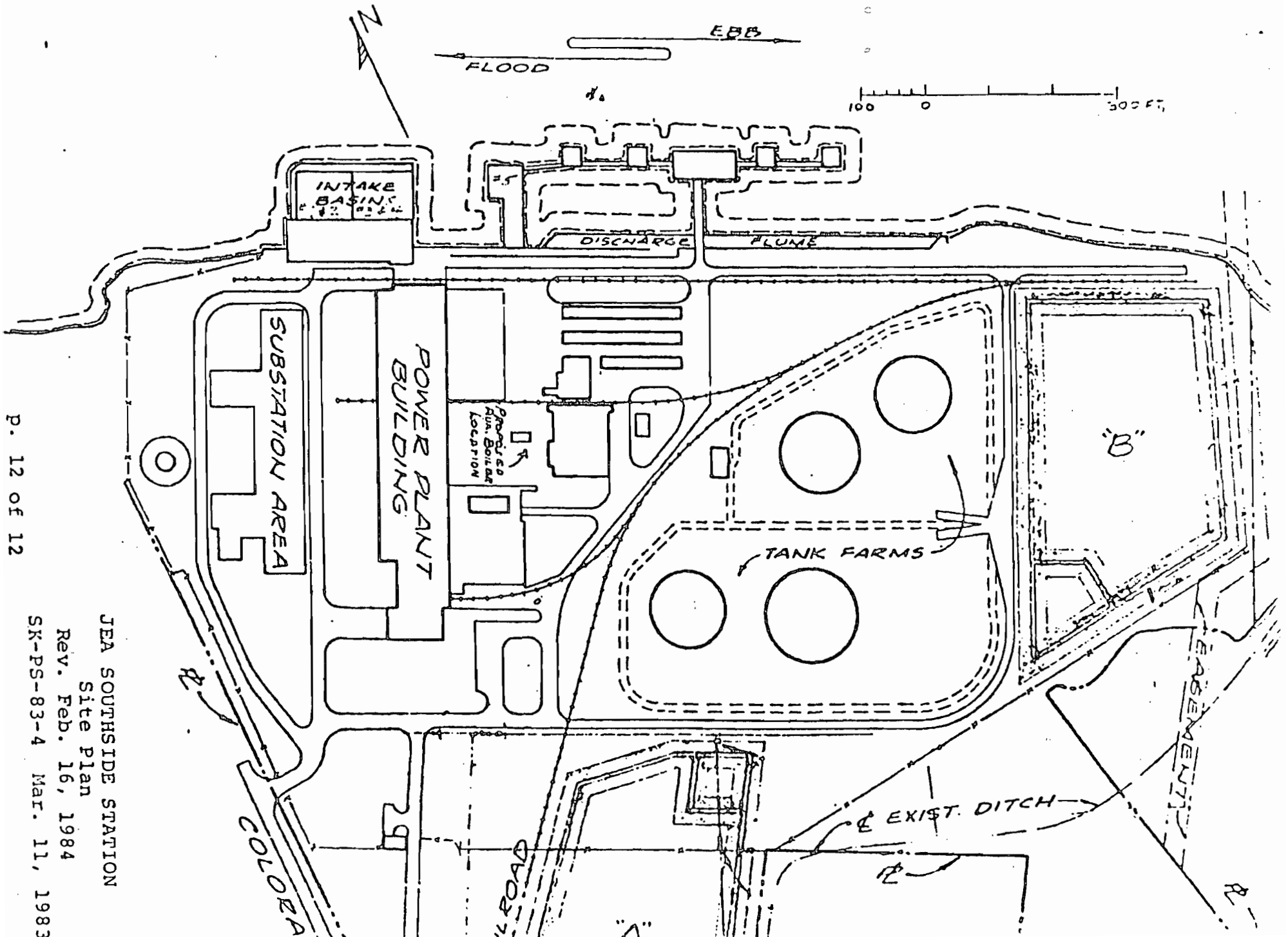
Energy to be reported in units of electrical power - KWH design rate.



P. 11 OF 12
 JEA Southside Station
 Location
 Scale 1:24000
 SK-PS-84-4 Feb. 16, 1984

Best Available Copy

ST. JOHNS RIVER



Best Available Control Technology (BACT) Determination
Jacksonville Electric Authority
Duval County

The applicant plans to install two (2) 6.1 MM Btu/hr auxillary boilers at their facility in Jacksonville, Florida. The boilers will fire primarily natural gas and use No. 2 fuel oil on a secondary basis. These truck mounted boilers will be used temporarily until a permanent boiler can be installed (Constrution Permit No. AC 86190.)

A BACT determination is required for the source as set forth in the Florida Administrative Code Rule 17-2.600(6) - Emissions Limiting and Performance Standards.

BACT Determination Requested by the Applicant:

Particulate and sulfur dioxide emissions to be controlled by firing of natural gas and low sulfur content distillate fuel oil.

Date of Receipt of a BACT application:

August 26, 1985

Date of Publication in the Florida Administrative Weekly:

September 20, 1985

Review of Group Members:

The determination was based upon comments received from the Stationary Source Control Section and the Northeast District.

Review Determined by DER:

The amount of particulate and sulfur dioxide emissions from the new boilers will be limited by the firing of new ^[1] No. 2 distillate oil having a sulfur content not to exceed 0.5 percent, by weight.

Visible Emissions

Not to exceed 15 percent opacity. 40% opacity is permitted for not more than two minutes in any one hour.

DER Method 9 (17-2.700(6)(a)9, FAC) will be used to determine compliance with the opacity standard.

[1] The term "new" means an oil which has been refined from crude oil and has not been used.

BACT Determination Rationale:

Sulfur in fuel oil is a primary air pollution concern, in that most of the fuel sulfur becomes SO₂ and particulate emissions from oil burning are related to the sulfur content. The department agrees with the applicant's proposal that the firing of natural gas and No.2 distillate oil containing 0.5 percent or less sulfur by weight is BACT for the 6.1 MM Btu/hr boilers.

The term "new oil" disallows the use of re-refined and waste oils, or any non-fossil fuels which were not considered in this BACT analysis.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Recommended By:



C. H. Fancy, P.E., Deputy Bureau Chief

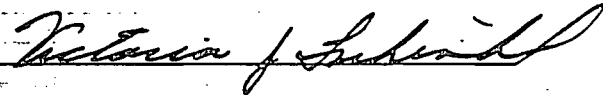
Date:

9-13-85

Approved:

September 16, 1985
Victoria J. Tschinkel, Secretary

Date:



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

September 4, 1985

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Royce Lyles
233 West Duval Street
P. O. Box 53015
Jacksonville, Florida 32201

Dear Mr. Lyles:

Re: Permit Applications No. AC 16-108824 and AC 16-109082
South Side Temporary Auxiliary Boilers "A" and "B"

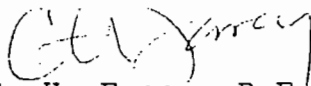
A review of your application to construct the referenced air pollution sources indicates that it is incomplete. The following is required to complete your application.

1. Section III-C: Potential emissions are noted as based on No. 6 fuel oil. Clarify this rationale.
2. Section V-2: Provide diagram of boiler and it's relation to overall system. Manufacturers specifications for units are also to be submitted.
3. Your application for construction consists of two independent sources. While we accept your single application for permitting, an additional \$100 fee is required.

Upon receipt of your response to the above items, processing of your applications will resume. Please refer to this letter in your response.

If there are any questions, please call M. G. Phillips (904)488-1344 or write to me at above address.

Sincerely,


C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/MP/s

cc: Richard Brietmoser, P.E.

Jacksonville Electric Authority

233 WEST DUVAL STREET • P. O. BOX 53015 • JACKSONVILLE, FLORIDA 32201



September 5, 1985

Mr. Michael Phillips
Center Air Permitting Section
Bureau of Air Quality Management
Fla. Dept. of Env. Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Phillips:

Re: Temporary Auxiliary Boiler (2)
Southside Generating Station

Per your recent request, please find enclosed a diagram of the proposed boiler (2) to be used temporarily until a permanent auxiliary boiler has been installed at the Southside Generating Station.

The manufacturer model information is as follows:

Name - Cleaver-Brooks
Model No. M 4 HP-100-6000
Steam Boiler
250 PSIG Design

If you have any additional questions, please contact me.

Very truly yours,

Richard Breitmoser, P.E.
Division Chief
Research & Environmental
Affairs Division

RB/lwr

cc: W. G. Mercer - w/o enc.
A. Haaland - "
Files

Enclosure

DER

SEP 5 1985

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE: Jacksonville Electric Authority
233 West Duval Street
Jacksonville, Florida 32202

Permit Number: AC 16-109082
Expiration Date: September 30, 1986
County: Duval
Latitude/Longitude: 30- 18' 57" N/
81- 38' 56" W
Project: Oil/Gas Fired Temporary
Auxiliary Boiler B,
6.1 MMBtu/hr

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the construction of an oil (or natural gas) temporary auxiliary boiler "B" at the JEA's Southside Station located in Jacksonville, Florida.

Construction shall be in accordance with the attached permit application except as otherwise noted on pages 5 and 6, Specific Conditions.

Attachments:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16), received on August 26, 1985.
2. A BACT determination made by DER.
3. C. H. Fancy's Letter (DER), dated 4 September, 1985
4. Richard Breitmoser's letter (JEA), received 5 September, 1985

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-109082
Expiration Date: September 30, 1986

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor 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 does not constitute 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 the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does 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, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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.

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-109082
Expiration Date: September 30, 1986

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or 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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring 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 notify and provide the department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact 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.

PERMITTEE: Jacksonville Electric Authority Permit Number: AC 16-109082
Expiration Date: September 30, 1986

GENERAL CONDITIONS:

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 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 arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

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.

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

PERMITTEE: Jacksonville Electric Authority Permit Number: AC 16-109082
Expiration Date: September 30, 1986

GENERAL CONDITIONS:

- b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - 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 that 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 submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. Except as required pursuant to DER's BACT determination, (attachment 2) and these specific conditions, the proposed boiler construction shall be carried out in accordance with the statements in the application submitted by the permittee.
2. The boiler is allowed to fire virgin No. 2 fuel oil or natural gas only with natural gas as the primary fuel. The sulfur content of the No. 2 fuel oil is limited to 0.5 percent by weight.
3. The visible emissions from the proposed boiler shall not be greater than 15% opacity with up to 40% opacity allowed for not more than two minutes in any one hour. DER Method 9 (17-2.700(6)(a)9, FAC) shall be used for the performance test conducted by the permittee.

PERMITTEE:
Jacksonville Electric Authority

Permit Number: AC 16-109082
Expiration Date: September 30, 1986

SPECIFIC CONDITIONS:

4. The permittee shall submit all fuel oil analyses (every oil delivery needs a fuel analysis report) with the required visible emissions test to DER's Northeast District and Jacksonville Bio-Environmental Services Division (BESD) annually.
5. The test of visible emissions shall be accomplished at 90% to 100% of the design capacity. The permittee shall notify DER's Northeast District and BESD 14 days prior to source testing.
6. The boiler is allowed to operate only when at least one of the main station units at the facility is under stand-by condition.
7. Reasonable precautions to prevent fugitive particulate emissions during construction, such as coating or spraying roads and the construction area, shall be taken by the permittee.
8. Prior to 90 days before the expiration of this permit, a complete application for an operating permit shall be submitted to the BESD office. Full operation of the source may then be conducted in compliance with the terms of this permit until expiration of this permit or receipt of an operating permit.

Issued this ____ day of _____, 1985

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

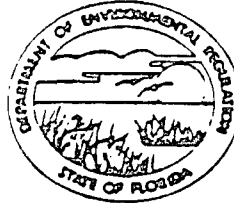
VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

AC 16-109082
DER
AUG 21 1985
BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO ~~OPERATE~~/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Oil/Gas Fired Boilers (2) [] New¹ [] Existing¹
APPLICATION TYPE: [X] Construction [] Operation [] Modification
COMPANY NAME: Jacksonville Electric Authority COUNTY: Duval
Identify the specific emission point source(s) addressed in this application (i.e. Line
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Temp. Aux. Boilers (A, B)
SOURCE LOCATION: Street 801 Colorado Avenue City Jacksonville
UTM: East 437.64 North 3353.82
Latitude 30° 18' 57" N Longitude 81° 38' 56" W
APPLICANT NAME AND TITLE: Royce Lyles, Managing Director
APPLICANT ADDRESS: 233 West Duval Street, Jacksonville, Florida 32202

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative^o of Jax. Electric Authority
I certify that the statements made in this application for a construction
permit are true, correct and complete to the best of my knowledge and belief. Further,
I agree to maintain and operate the pollution control source and pollution control
facilities in such a manner as to comply with the provision of Chapter 403, Florida
Statutes, and all the rules and regulations of the department and revisions thereof. I
also understand that a permit, if granted by the department, will be non-transferable
and I will promptly notify the department upon sale or legal transfer of the permitted
establishment.

^oAttach letter of authorization

Signed: Royce Lyles

Royce Lyles, Managing Director
Name and Title (Please Type)

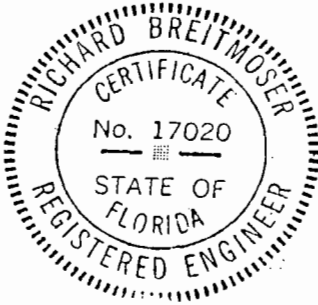
Date: 8/22/85 Telephone No. (904) 633-4780

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have
been designed/examined by me and found to be in conformity with modern engineering
principles applicable to the treatment and disposal of pollutants characterized in the
permit application. There is reasonable assurance, in my professional judgment, that

See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed [Signature]
Richard Breitmoser
Name (Please Type)
Jacksonville Electric Authority
Company Name (Please Type)
P. O. Box 53015, Jacksonville, Fla. 32201
Mailing Address (Please Type)

Florida Registration No. 17020 Date: 8/22/85 Telephone No. (904) 633-4517

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Proposed unit is a portable, truck bed-mounted boiler room for temporary standby auxiliary service during outage of main generating units.
Primary use will be to maintain residual (#6) fuel temperature for main unit startup.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction 9-1-85 Completion of Construction 3-1-86

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Pollution control will be achieved by firing with premium fuels - natural gas (primary) and No. 2 fuel oil (secondary)

O. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

This unit will operate during outages of:

SS No. 4 (AO 16-19287), Reapplication submitted

SS No. 5 (AO 16-59262), Rev. 6/16/83, Exp. 8/31/87

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;
 if power plant, hrs/yr _____ ; if seasonal, describe: These units will operate only in a standby mode to provide essential steam services when main generating units are on cold standby. It is estimated that each boiler will operate less than 40 percent of the time on an annual basis, but may be required full time in fall and winter and prior to startup of main generating units.

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO**
 - a. If yes, has "offset" been applied? NO
 - b. If yes, has "Lowest Achievable Emission Rate" been applied? YES
 - c. If yes, list non-attainment pollutants. Particulate Matter
2. Does best available control technology (BACT) apply to this source? YES
 If yes, see Section VI.
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO
- H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO
 - a. If yes, for what pollutants? N/A
 - b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

The two units, each capable of approximately 6.1 MMBtu/hr (12.2 MMBtu/hr total), operate in lieu of the main station generating units, the smallest of which is 380 MMBtu/hr. Emissions from the facility will always be less when the proposed units are in operation than emissions from the unmodified facility. Particulate emissions from the proposed premium fuels will be so low as to constitute LAER. The proposed modification is configured so as not to interfere with reasonable progress toward attainment (17-2.520(3)(b)).

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: N/A

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

No. 2 fuel oil (maximum) emissions for each unit (A, B)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	* Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SO ₂	3.2	5.62	17-2.600(6)(c)	BACT, 3.2	6.7	11.73	Flue Gas
Particulate	0.1	0.16	17-2.600(6)(b)	BACT, 0.1	0.6	0.97	"
Visible Emissions	-	-	17-2.600(6)(a)	**20%	-	-	"

¹See Section V, Item 2. Calculated on a basis of 40% L.F., 0.5% S and AP-42 Emissions estimates

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

SO₂ = 142 S/Kgal, @ 135 K BTU/gal = 1.055/MMBTU: 1.05 X 0.5 X 6.1 = 3.2 lb/hr
 TSP = 2 lb/K gal, @ 135 K BTU/gal = 0.015 lb/MMBTU: 0.015 X 6.1 = 0.1 lb/hr

J. Control Devices: (See Section V, Item 4) None Available

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels (Totals for both units)

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
No. 2 Fuel Oil	20	(2 X 45 =) 90	(2 X 6.1 =) 12.2
or			
Natural Gas	2,700 CFH	(2 X 6,100 =) 12,200 CFH	(2 X 6.1 =) 12.2

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: No. 2 Fuel Oil/Natural Gas

Percent Sulfur: FO - < 0.5/NG - 0.0035 Percent Ash: FO - < 0.01/NG - 0.000

Density: FO - 6.8 (+)/NG---- lbs/gal Typical Percent Nitrogen: FO - 0.1/NG - 0.4

Heat Capacity: FO - 19,500 (+) BTU/lb FO - 135,000 (+)/NG - 1,000 BTU/gal^(Vol.)

Other Fuel Contaminants (which may cause air pollution): None known

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average 10 Maximum 30

G. Indicate liquid or solid wastes generated and method of disposal.

Boiler blowdown and water softener regeneration wastewaters to be
discharged to existing regulated and/or permitted facilities, as
applicable.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 16 ft ea ft. Stack Diameter: 1'-4" ea ft.
 Gas Flow Rate: 2100 ea ACFM 1080 ea DSCFM Gas Exit Temperature: 400-450 °F.
 Water Vapor Content: 12.5 (vol) % Velocity: 25 FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____
 Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____
 Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____
 Manufacturer _____
 Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____
 Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: N/A

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

N/A

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
Sulfur Dioxide	3.2 lb/hr max.
Particulate Matter	0.1 lb/hr max.

D. Describe the ~~existing~~ ^{proposed} control and treatment technology (if any).

- | | |
|--|---|
| 1. Control Device/System:
Positioning fuel/air proportioning with oxygen trim | 2. Operating Principles:
fuel sulfur spec. |
| 3. Efficiency:° N/A | 4. Capital Costs:
Included in boiler cost |

Explain method of determining

5. Useful Life: Temporary Rental

6. Operating Costs: Savings

7. Energy: Net energy reduction

8. Maintenance Cost: minimal - \$1000/yr

9. Emissions:

Contaminant	Rate or Concentration
Sulfur Dioxide	3.2 lb/hr max.
Particulate Matter	0.1 lb/hr max.

10. Stack Parameters

a. Height:	16	ft.	b. Diameter:	1'-4"	ft.
c. Flow Rate:	2100	ACFM	d. Temperature:	450	°F.
e. Velocity:	25	FPS			

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). No known control technologies are used on units of this type, size and fuel.

1.

- | | |
|-----------------------------|--------------------------|
| a. Control Device: | b. Operating Principles: |
| c. Efficiency: ¹ | d. Capital Cost: |
| e. Useful Life: | f. Operating Cost: |
| g. Energy: ² | h. Maintenance Cost: |
- i. Availability of construction materials and process chemicals:
 - j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- | | |
|-----------------------------|--------------------------|
| a. Control Device: | b. Operating Principles: |
| c. Efficiency: ¹ | d. Capital Cost: |
| e. Useful Life: | f. Operating Cost: |
| g. Energy: ² | h. Maintenance Cost: |
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

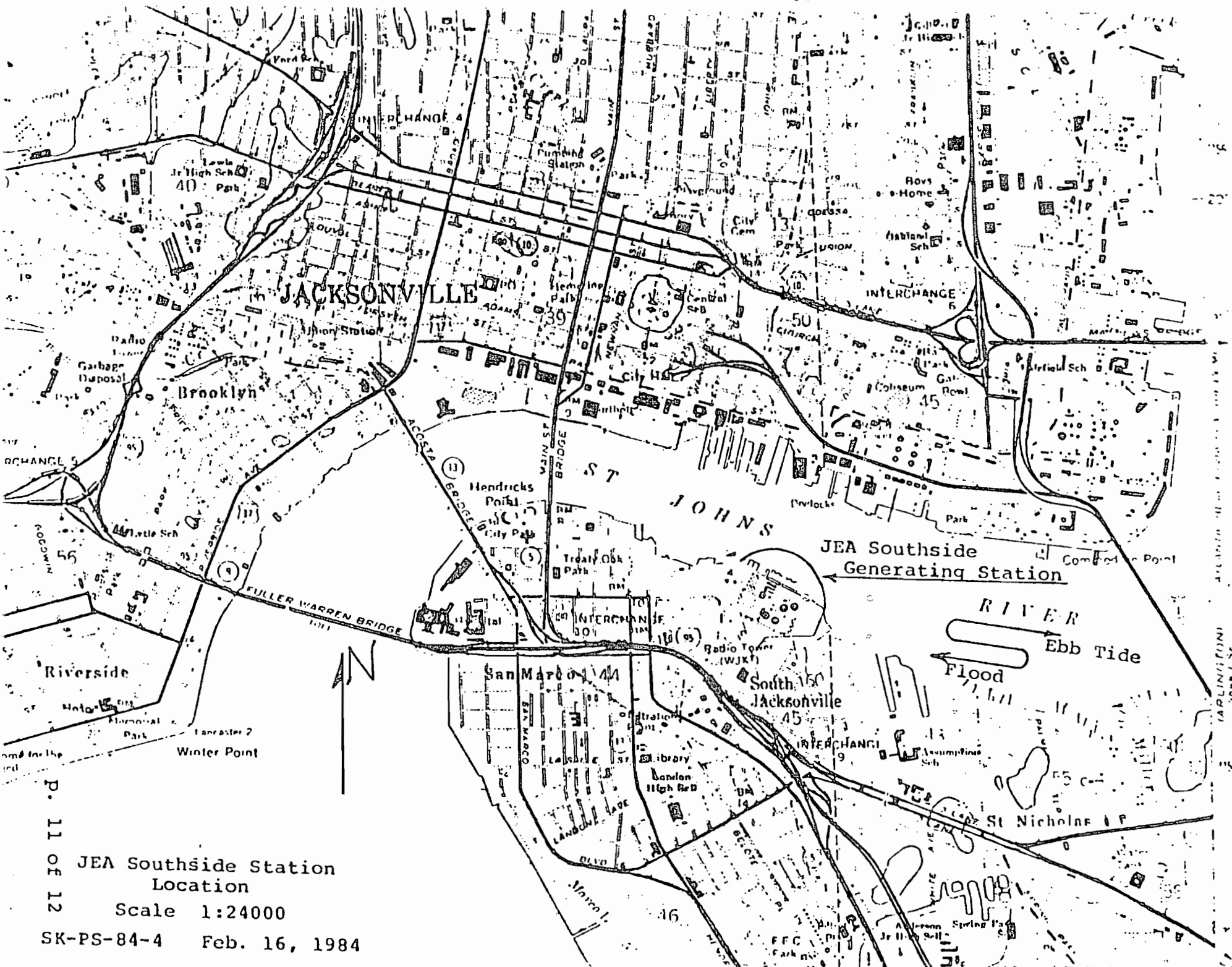
4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

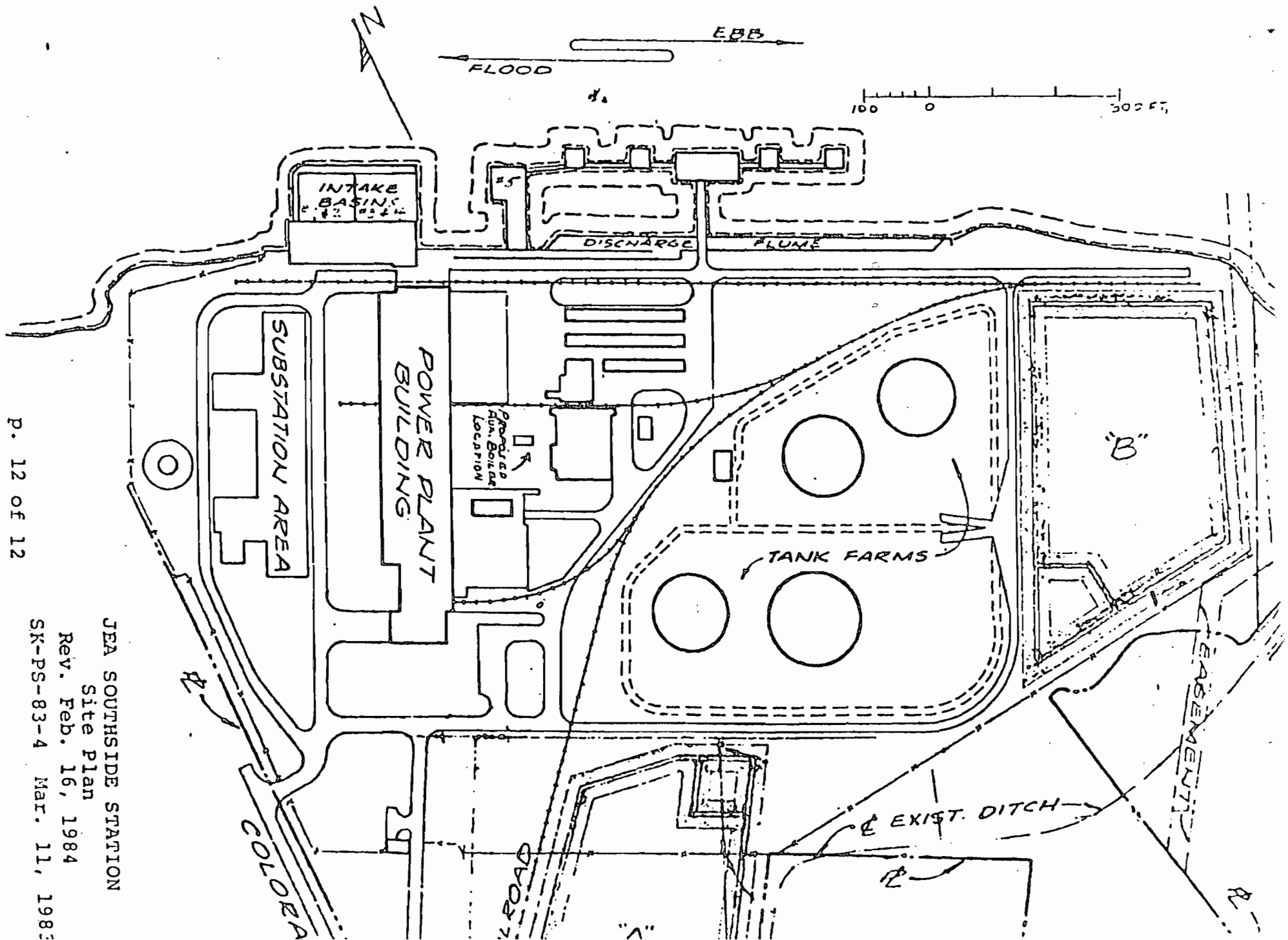
* Explain method of determining efficiency.
 Energy to be reported in units of electrical power - KWH design rate.



p. 11 of 12
 JEA Southside Station
 Location
 Scale 1:24000
 SK-PS-84-4 Feb. 16, 1984

Best Available Copy

ST. JOHNS RIVER



Best Available Control Technology (BACT) Determination
Jacksonville Electric Authority
Duval County

The applicant plans to install two (2) 6.1 MM Btu/hr auxillary boilers at their facility in Jacksonville, Florida. The boilers will fire primarily natural gas and use No. 2 fuel oil on a secondary basis. These truck mounted boilers will be used temporarily until a permanent boiler can be installed (Constrution Permit No. AC 86190.)

A BACT determination is required for the source as set forth in the Florida Administrative Code Rule 17-2.600(6) - Emissions Limiting and Performance Standards.

BACT Determination Requested by the Applicant:

Particulate and sulfur dioxide emissions to be controlled by firing of natural gas and low sulfur content distillate fuel oil.

Date of Receipt of a BACT application:

August 26, 1985

Date of Publication in the Florida Administrative Weekly:

September 20, 1985

Review of Group Members:

The determination was based upon comments received from the Stationary Source Control Section and the Northeast District.

Review Determined by DER:

The amount of particulate and sulfur dioxide emissions from the new boilers will be limited by the firing of new [1] No.2 distillate oil having a sulfur content not to exceed 0.5 percent, by weight.

Visible Emissions

Not to exceed 15 percent opacity. 40% opacity is permitted for not more than two minutes in any one hour.

DER Method 9 (17-2.700(6)(a)9, FAC) will be used to determine compliance with the opacity standard.

[1] The term "new" means an oil which has been refined from crude oil and has not been used.

BACT Determination Rationale:

Sulfur in fuel oil is a primary air pollution concern, in that most of the fuel sulfur becomes SO₂ and particulate emissions from oil burning are related to the sulfur content. The department agrees with the applicant's proposal that the firing of natural gas and No.2 distillate oil containing 0.5 percent or less sulfur by weight is BACT for the 6.1 MM Btu/hr boilers.

The term "new oil" disallows the use of re-refined and waste oils, or any non-fossil fuels which were not considered in this BACT analysis.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Recommended By:



C. H. Fancy, P.E., Deputy Bureau Chief

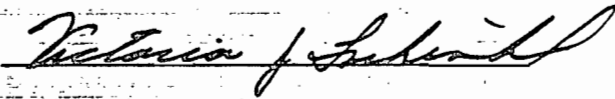
Date:

9-13-85

Approved:

September 16, 1985
Victoria J. Tschinkel, Secretary

Date:



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

September 4, 1985

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Royce Lyles
233 West Duval Street
P. O. Box 53015
Jacksonville, Florida 32201

Dear Mr. Lyles:

Re: Permit Applications No. AC 16-108824 and AC 16-109082
South Side Temporary Auxiliary Boilers "A" and "B"


A review of your application to construct the referenced air pollution sources indicates that it is incomplete. The following is required to complete your application.

1. Section III-C: Potential emissions are noted as based on No. 6 fuel oil. Clarify this rationale.
2. Section V-2: Provide diagram of boiler and it's relation to overall system. Manufacturers specifications for units are also to be submitted.
3. Your application for construction consists of two independent sources. While we accept your single application for permitting, an additional \$100 fee is required.

Upon receipt of your response to the above items, processing of your applications will resume. Please refer to this letter in your response.

If there are any questions, please call M. G. Phillips (904)488-1344 or write to me at above address.

Sincerely,

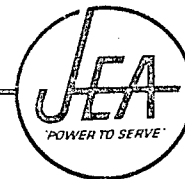

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/MP/s

cc: Richard Brietmoser, P.E.

Jacksonville Electric Authority

233 WEST DUVAL STREET • P. O. BOX 53015 • JACKSONVILLE, FLORIDA 32201



September 5, 1985

Mr. Michael Phillips
Center Air Permitting Section
Bureau of Air Quality Management
Fla. Dept. of Env. Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Phillips:

Re: Temporary Auxiliary Boiler (2)
Southside Generating Station

Per your recent request, please find enclosed a diagram of the proposed boiler (2) to be used temporarily until a permanent auxiliary boiler has been installed at the Southside Generating Station.

The manufacturer model information is as follows:

Name - Cleaver-Brooks
Model No. M 4 HP-100-6000
Steam Boiler
250 PSIG Design

If you have any additional questions, please contact me.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Richard Breitmoser', is written over a horizontal line.

Richard Breitmoser, P.E.
Division Chief
Research & Environmental
Affairs Division

RB/lwr

cc: W. G. Mercer - w/o enc.
A. Haaland - "
Files

Enclosure

DER

SLR 5 1985

BAQM