

# Department of Environmental Protection

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

Virginia B. Wetherell Secretary

September 30, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. A. K. Sharma Director of Power Supply Kissimmee Utility Authority 1701 West Carroll Street Kissimmee, Florida 34741

Re: DRAFT Air Construction Permit Amendment No.: 0970043-003-AC (PSD-FL-182)

Testing Requirement at Cane Island Facility

Dear Mr. Sharma:

Enclosed is one copy of the DRAFT Air Construction Permit Amendment for the Testing Requirement at Cane Island Facility located near Intercession City, Osceola County. The Department's Intent to Issue Air Construction Permit Amendment and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT" must be published within 30 (thirty) days of receipt of this letter. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit amendment.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. A. A. Linero at the above letterhead address. If you have any other questions, please contact Cleve Holladay or Mr. Linero at 904/488-1344.

Sincerely,

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

CHF/ch

Enclosures



In the Matter of an Application for Permit by:

Kissimmee Utility Authority 1701 West Carroll Street Kissimmee, Florida 34741/ DRAFT Permit Amendment No.:0970043-003-AC, (PSD-FL-182)
Testing Requirement at Cane Island Facility
Osceola County

### INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT

The Department of Environmental Protection (Department) gives notice of its intent to issue a air construction permit amendment (copy of DRAFT Permit Amendment enclosed) for the permit revision, as detailed in the application specified above, for the reasons stated below.

The applicant, Kissimmee Utility Authority, applied on August 27, and September 13, 1996, to the Department for an air construction permit amendment for the Testing Requirement at Cane Island Facility located near Intercession City, Osceola County. The amendment makes the following changes: 1) compliance with the nitrogen oxide emission limit will be determined using data from the nitrogen oxide continuous emissions monitor (CEM) instead of by using annual compliance testing for nitrogen oxide, 2) removes the requirement for annual testing for particulate matter, sulfuric acid mist and VOC, and 3) specifies that measured NO<sub>x</sub> emissions shall not be ISO corrected for comparison with the BACT standard.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-212. This source is not exempt from permitting procedures. The Department has determined that the air construction permit amendment is required to commence or continue operations at the described facility.

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

Pursuant to Sections 403.815 and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT." The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air

DRAFT Permit Amendment No.: 0970043-003-AC, (PSD-FL-182) Page 2 of 3

Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 904/488-1344; Fax: 904/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150(6), F.A.C.

The Department will issue FINAL Permit Amendment in accordance with the conditions of the enclosed DRAFT Permit Amendment unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

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

In addition, any person 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, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 904/488-9730; Fax: 904/487-4938). Petitions filed by the permit applicant and the parties listed below must be filed within 14 (fourteen) days of receipt of this intent. Petitions filed by other persons must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of the receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The petition shall contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit Amendment File Number and the county in which the proposed source will operate; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of facts which the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wants the Department to take with respect to the Department's action or proposed action.

DRAFT Permit Amendment No.: 0970043-003-AC, (PSD-FL-182) Page 3 of 3

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 position taken by it in this DRAFT Permit Amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above, and be filed (received) within 14 (fourteen) days of receipt of this intent in the Office of General Counsel at the address referenced above. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 60Q-2.010, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT (including the PUBLIC NOTICE) and copies were mailed by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 4-30-96 to the persons listed:

Mr. A. K. Sharma, Kissimmee Utility Authority \*

Mr. Brian Beals, EPA

Mr. Jerome Guidry, P.E., Perigee

Mr. Len Kozlov, CD

Mr. John Bunyak, NPS

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

m John 9/30/96

## PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Permit Amendment No.: 0970043-003-AC, (PSD-FL-182)
Testing Requirement at Cane Island Facility
Osceola County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit amendment to Kissimmee Utility Authority for the Testing Requirement at Cane Island Facility located near Intercession City, Osceola County. A Best Achievable Control Technology (BACT) determination was not required. The amendment will not result in an increase in any emissions from the facility, and will not cause a violation of any state or federal ambient air quality standards or increments. The applicant's name and address are: Kissimmee Utility Authority, (KUA) 1701 West Carroll Street, Kissimmee, Florida 34741. The amendment makes the following changes: compliance with the nitrogen oxide (NO<sub>x</sub>) emission limit will be determined using data from the nitrogen oxide continuous emissions monitor (CEM) instead of by using annual compliance testing for nitrogen oxide; removes the requirement for annual testing for particulate matter, sulfuric acid mist and VOC; and specifies that measured NO<sub>x</sub> emissions shall not be ISO corrected for comparison with the BACT standard.

The unit burns natural gas, an inherently clean fuel, and very low sulfur fuel oil when gas is not available. The continuous monitoring method of compliance is superior to an annual test. KUA has already demonstrated very low emissions of particulate matter, sulfuric acid and VOC due to burning of clean fuels. The new basis for compliance with the NO<sub>x</sub> limit is consistent with Department guidance.

The Department will issue the FINAL Permit Amendment, in accordance with the conditions of the enclosed DRAFT Permit Amendment unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

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

In addition, any person whose substantial interests are affected by this proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 904/488-9730; Fax: 904/487-4938), within 14 (fourteen) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information; (a) The name, address, and the telephone number of each petitioner, the applicant's name and address, the Department Permit Amendment File Number and the

county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of facts which petitioner contends warrants reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and, (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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 position taken by it in this DRAFT Permit Amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 (fourteen) days of receipt of this notice, in the Office of General Counsel at the address referenced above. Failure to petition within the allotted time frame constitutes a waiver of any rights such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 60Q-2.010, Florida Administrative Code.

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

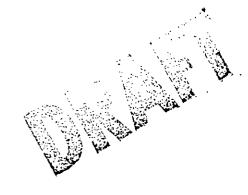
Department of Environmental Protection Bureau of Air Regulation 111 South Magnolia Drive, Suite 4 Tallahassee, Florida 32301 Telephone: 904/488-1344

Fax: 904/922-6979

Department of Environmental Protection Central District 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803 Telephone: 407/894-7555

Fax: 407/897-2966

The complete project file includes the Draft Permit Amendment, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 904/488-1344, for additional information.



October XX, 1996

#### CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mr. A. K. Sharma Director of Power Supply Kissimmee Utility Authority 1701 West Carroll Street Kissimmee, Florida 34741

Dear Mr. Sharma:

Re: DRAFT Air Construction Permit Amendment No: 0970043-003-AC (PSD-FL-182)
Testing Requirement at Cane Island Facility

The Department has reviewed your requests received August 27, and September 13, 1996. The following Specific Conditions related to compliance testing for nitrogen oxide, sulfur dioxide, sulfuric acid mist, and particulate matter emissions are hereby modified as follows:

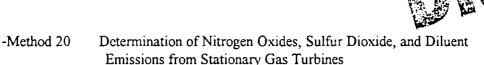
#### Specific Condition 8:

#### From:

Compliance with the NO<sub>X</sub>, SO<sub>2</sub>, CO, PM, PM<sub>10</sub>, and VOC standards shall be determined (while operating at 95-100% of the permitted maximum heat rate input corresponding to the particular ambient conditions) within 180 days of initial operation of the maximum capability of the unit and annually thereafter, by the following reference methods as described in 40 CFR 60, Appendix A (July, 1991 version) and adopted by reference in F.A.C. Rule 17-2.700.

-Method 1	Sample and Velocity Traverses
-Method 2	Volumetric Flow Rate
-Method 3	Gas Analysis
-Method 5	Determination of Particulate Emissions from Stationary Sources
or	
-Method 17	
-Method 9	Visual Determination of the Opacity of Emissions from Stationary Sources
-Method 8	Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources (for fuel oil firing only)
-Method 10	Determination of Carbon Monoxide Emissions from Stationary Sources

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-Method 25A Determination of Total Gaseous Organic Concentrations Using a Flame Ionization Analyzer

Other DER approved methods may be used for compliance testing after prior Departmental approval.

#### To:

Compliance with the NO<sub>X</sub>, SO<sub>2</sub>, CO, PM, PM<sub>10</sub>, and VOC standards shall be determined (while operating at 95-100% of the permitted maximum heat rate input corresponding to the particular ambient conditions) within 180 days of initial operation of the maximum capability of the unit and annually thereafter (except for NO<sub>X</sub>, sulfuric acid mist, VOC, PM, and PM<sub>10</sub>) by the following reference methods as described in 40 CFR 60, Appendix A (July, 1991 version) and adopted by reference in F.A.C. Rule 17-2.700.

-Method 1 -Method 2	Sample and Velocity Traverses Volumetric Flow Rate
-Method 3	Gas Analysis
-Method 5	Determination of Particulate Emissions from Stationary Sources
or	
-Method 17	
-Method 9	Visual Determination of the Opacity of Emissions from Stationary Sources
-Method 8	Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources (for fuel oil firing only)
-Method 10	Determination of Carbon Monoxide Emissions from Stationary Sources
-Method 20	Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
-Method 25A	Determination of Total Gaseous Organic Concentrations Using a Flame Ionization Analyzer

Other DER approved methods may be used for compliance testing after prior Departmental approval.

Compliance with the  $NO_X$  standard shall be determined on a rolling 24-hour average using the data recorded by the continuous emissions monitor and reported quarterly to the Central District Office at the same time as the quarterly excess emission reports in Specific Condition 23.

#### Specific Condition 10:

#### From:

Compliance with the SO<sub>2</sub> emission limit can also be determined by calculations based on fuel analysis using ASTM D4294 for the sulfur content of liquid fuels and ASTM D3246-81 for sulfur content of gaseous fuel.

DRAFT Permit Amendment No.: 0970043-003-AC, (PSD-FL-182)

Page 4 of 4

Pref = Reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure

Pobs = Measured combustor inlet absolute pressure at test ambient pressure

Hobs = Specific humidity of ambient air at test

e = Transcendental constant (2.718)

 $T_{amb} = T_{emperature}$  of ambient air at test (° K)

Note: Measured NO<sub>x</sub> emissions shall not be ISO corrected for comparison with the BACT standard.

References to ISO conditions in footnote (C) in Tables 1 and 2:

From:

Emission rates are based on 100% load and at ISO conditions.

To:

Emission rates are based on 100% load.

The Department did not change the annual test requirement for SO<sub>2</sub> emissions in Specific Condition 8 because compliance with the SO<sub>2</sub> emission limit can also be determined by fuel analysis as stated in Specific Condition 10. In addition your request to amend Specific Condition 4 needs further evaluation to determine whether this amendment would result in emissions greater than the PSD significance level for NO<sub>X</sub> emissions.

A copy of this letter shall be attached to the reference air construction permit and shall become a part of that permit.

Sincerely

Howard L. Rhodes, Director Division of Air Resources Management

HLR/ch Enclosure DRAFT Permit Amendment No.: 0970043-003-AC, (PSD-FL-182)

Compliance with the SO<sub>2</sub> and sulfuric acid mist emission limits can also be determined by calculations based on fuel analysis using ASTM D4294 for the sulfur content of liquid fuels and ASTM D3246-81 sulfur content of gaseous fuel.

Specific Condition 13:

#### From:

During performance tests, to determine compliance with the allowable NO<sub>X</sub> standard, measured NO<sub>X</sub> emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_x = (NO_x obs)(\frac{P_{ref}}{P_{obs}})^{0.05} e^{19(Hobs-0.00633)}(\frac{288 \circ K}{T_{omb}})^{1.53}$$

where:

 $NO_X$  = Emissions of  $NO_X$  at 15 percent oxygen and ISO standard ambient conditions

 $NO_X$  obs = Measured  $NO_X$  emission at 15 percent oxygen, ppmv

Pref = Reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure

Pobs = Measured combustor inlet absolute pressure at test ambient pressure

Hobs = Specific humidity of ambient air at test

e = Transcendental constant (2.718)

 $T_{amb} = T_{emperature}$  of ambient air at test ( ${}^{\circ}K$ )

#### To:

During performance tests, to determine compliance with the allowable NSPS NO<sub>X</sub> standard, measured NO<sub>X</sub> emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_x = (NO_x obs)(\frac{P_{ref}}{P_{obs}})^{0.05} e^{19(Hobs-0.00633)} (\frac{288 K}{T_{amb}})^{1.53}$$

where:

 $NO_X$  = Emissions of  $NO_X$  at 15 percent oxygen and ISO standard ambient conditions

 $NO_X$  obs = Measured  $NO_X$  emission at 15 percent oxygen, ppmv

# Florida Department of Environmental Protection

TO:

Clair Fancy

THRU:

Al Linero al fin 4/30

**FROM** 

Cleve Holladay

DATE:

September 30, 1996

SUBJECT:

Kissimmee Utility Authority 0970043-003-AC, PSD-FL-182

Attached is a letter modifying a construction permit for the above referenced facility

The amendment makes the following changes: 1) compliance with the nitrogen oxide emission limit is to be determined using data from the nitrogen oxide continuous emissions monitor (CEM) instead of by using annual compliance testing for nitrogen oxide, 2) removes the requirement for annual testing for particulate matter, sulfuric acid mist and VOC, and 3) specifies that measured NO<sub>x</sub> emissions shall not be ISO corrected for comparison with the BACT standard.

The CEM's compliance method is superior to an annual stack test. Natural gas and 0.05 percent sulfur fuel oil give off minimal PM emissions. The ISO provisions will now be consistent with our latest guidance.

I recommend your approval and signature.

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