



December 30, 1998

RECEIVED

JAN 06 1999

BUREAU OF
AIR REGULATION

Mr. Scott Sheplak
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Draft Title V Permit for Cane Island
(0970043-002-AV)

Dear Mr. Sheplak:

The purpose of this letter is to briefly recapitulate the series of events that have taken place since the issuance by FDEP of the above draft Title V permit for Cane Island Units 1 & 2 on October 13, 1998 and my current understanding of the state of affairs of the Authority to Construct and Title V permits for not only of Units 1 & 2 at Cane Island but also for the upcoming Unit 3 at the site as well. We also provide you with some preliminary comments regarding certain operational terms and conditions which were already approved for Units 1 & 2 and which should have already been incorporated in the draft Title V permit issued by FDEP on October 13, 1998.

FDEP issued the draft Title V permit for Cane Island Units 1 & 2 on October 13, 1998 which we received at KUA a couple of days later. Although there were quite a few items in the draft permit which needed to be modified (described later) the most serious issue noted was that the draft Title V permit required Unit 1 to achieve a NOx emission level of 15 ppm beginning January 1, 1999.

In light of Unit 1's Nox requirements in the proposed Draft Title V Permit, it may be that FDEP's Operating Permit section is not fully aware of the ongoing discussions with the FDEP's New Source Section (Mr. Linero) and GE regarding Unit 1's (LM6000) NOx emission levels. The gist of these discussions has all along been to establish an appropriate time for the Cane Island Unit 1 to achieve the 15 ppm limit since GE has not been able to develop the technology for a dual fuel LM6000 Unit to meet the 15 ppm NOx limit yet and neither can GE guarantee when they will be able to do so.

Under those urgent circumstances numerous telephone conversations took place between KUA's staff, consultants (Black & Veatch), attorneys (Tasha Buford from Young, Van Assenderp et al) and FDEP's attorney's office, office of New Service Review and also your office.

After much discussion which ranged from the possibility of an extension of comment period to an administrative hearing on the issue, a compromise was reached on the basis of a suggestion from FDEP's office of New Source Review Section (Mr. Linero). The solution or the compromise for the present as I understand is as follows:

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- a) FDEP will modify the construction permit for Cane Island Unit 1 & 2 by extending the NO_x Compliance date by another year through January 1, 2000 with the current terms and conditions in force. Since then FDEP has issued on 11/5/98 an intent to do so and KUA has published the intent in the Orlando Sentinel on November 13, 1998. After receiving no public comment, FDEP has issued the said modification on December 15, 1998.
- b) FDEP's draft Title V permit dated October 13, 1998 will be held by FDEP until the Site Certification Hearing as described below. No action will be taken on this draft Title V permit at present.
- c) As all parties concerned in the foregoing issue are aware that KUA has in August of this year filed a Site Certification Application for all 3 units at Cane Island. It was the consensus among all parties that Title V issues for Cane Island Units 1 & 2 should be considered along with those for Unit 3 at the time of the Administrative Hearing scheduled for Unit 3 environmental issues in June of 1999. In this report see copy of Mr. Linero's e-mail and Mr. Hamilton (Buck) Oven's letter attached.

I will like to hear any comments as to my above understandings.

Regarding some other items which need to be modified and incorporated in any future draft Title V permits for Units 1 & 2 are given below. I understand that Jerome Guidry of Perigee who is KUA's Plant Environmental Consultant had already some conversation with you regarding these. The specific items are as follows:

We wish to integrate into the future Title V permit the changes to our Unit's 1 & 2 construction permit AC49-205703 which was approved on August 15, 1997 and is now being extended again for one additional year. These changes addressed compliance with the NO_x emission limit using RATA data; removed the annual testing requirement for PM, sulfuric acid mist and VOC; specified that NO_x emissions should not be ISO corrected for comparison with the BACT standard; changed the frequency of excess emissions reporting to semiannually; and waived the requirement for water:fuel and fuel-bound nitrogen monitoring. Based on your conversation with Jerome Guidry in this regard, we understand that you will implement these changes. I have enclosed a copy of the permit modification for your reference.

Additional comments are detailed below.

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Page numbering

Relates to your draft permit of October 13, 1998. However, the page numbering may be incorrect. If the total number of pages in the permit is 28, we are missing page 3. Note that page 4 suggests that the total number of pages should be 31.

Page 4 of 31, Condition 4

It is our understanding that this facility is not required to submit an RMP. However, the wording is acceptable.

Page 8 of 28, Condition A.5

The listing of tons per year under "Emission Limits" defines the equivalent annual emission as a regulatory limit. We propose to list the annual emission under a heading such as "Equivalent Emission" (see Table 1-1 in Appendix S). We also propose that these annual emission amounts be based on the burning of oil for 1,000 hours, to be consistent with Condition A.3 and Table 1-1 in Appendix S, since this facility is permitted to burn oil for 1,000 hours. For example, based on 1,000 hours on oil and 7,760 hours on gas, the annual NOx equivalent emission would be 116.9 tons (see Table 1-1 in Appendix S); this amount differs from the 106.61 tons per year listed as an emission limit in Condition A.5.

We also propose that the emission limits for beryllium, arsenic, mercury, and lead be footnoted to indicate that the emissions are based on an emission factor, which may change. If, in the future, a higher emission factor is used to estimate emissions of these materials, then emissions estimated using that factor could be construed to indicate a violation of this emission limit.

Page 9 of 28, Condition A.6

Change "visible emissions NOx" to read "visible emissions and NOx."

Page 10 of 28, Condition A.11

Continuous monitoring of water: fuel ratio has been waived. See attached modification to construction permit AC49-205703.

Page 10 of 28, Condition A.13

Reporting of excess emissions has been changed to semiannually. See attached modification to construction permit AC49-205703.

Page 13 of 28, Condition B.5

See comments to Condition A.5 above.

Page 14 of 28, Condition B.6

See comments to Condition A.6 above.

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Page 15 of 28, Condition B.11
See comments to Condition A.11 above.

Appendix S, Table 1-1

These comments apply to the tables for both emissions units. Footnote "a" should read "for natural gas using 7760 hours per year." Footnote "1" should read "7760 hours per year of gas operation."

Appendix S, Table 2-1

This comment applies to the tables for both emissions units. The annual requirement for VOC testing has been waived. See attached modification to construction permit AC49-205703.

If you have any questions regarding those specific other items beginning on page 2 of this letter, please contact me at 407/933-7777 or Jerome Guidry at 407/859-7374. Thank you.

Sincerely,



A.K. (Ben) Sharma, P.E.
Director of Power Supply

Enclosure

cc: James C. Welsh
Jeff Ling
Jerome Guidry
Mike Soltys
Amy Carlson
Tasha Buford
Al Linero

1/8/99 cc: Scott Sheplack
Mike Halpin

From: Alvaro Linero TAL 850/921-9532 <LINERO_A@dep.state.fl.us>
To: KUA.Mail5(BSHARMA,JLING)
Date: 11/5/98 8:23AM
Subject: Air Construction Permit - Cane Island Unit 1

Attached is the Public Notice to extend the 15 ppm NOx compliance period by one year. The matter can probably be addressed in the certification of Cane Island Unit 3. I recommend developing some options such as limiting hours of operation if a technological solution is not in site. At the administrative hearing next summer, there will have to be a more concrete solution.

I will advise the Title V Section that they can revise their draft permit as soon as we complete the 30 day comment period after you publish the attached notice. Thanks. Al Linero.

CC: Mike Halpin TAL <HALPIN_M@dep.state.fl.us>

SCA
file

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

cc
Jew
Claude L'Epie
SCA file
Back to me
with an
extra copy
(2)
Ben
12/11

In Re: Kissimmee Utility Authority -)
Florida Municipal Power Agency)
Cane Island Power Park)
Power Plant Siting Application)
PA 98-38)

DOAH CASE NO. 98-3619EPP
DEP CASE NO. 98-2297

NOTICE OF STATEMENT OF SUFFICIENCY

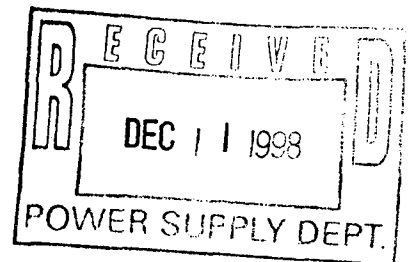
The state of Florida Department of Environmental Protection (Department), pursuant to Section 403.5066, Florida Statutes, gives notice to the Division of Administrative Hearings:

The above referenced application for power plant site certification was found not sufficient by the Department on October 4, 1998. On November 6, 1998, the Kissimmee Utility Authority and the Florida Municipal Power Agency submitted additional information to supplement or clarify the application. Pursuant to section 403.5067, Florida Statutes, the Department finds the application to be **sufficient**.

Respectfully submitted,

Hamilton S. Oven

Hamilton S. Oven, P.E.
Administrator, Siting
Coordination Office



KISSIMMEE UTILITY AUTHORITY
CANE ISLAND POWER PARK
SCHEDULE

DATE	ACTION
8/5/98	Site Certification Application (SCA) Filed
8/11/98	DEP requests DOAH to assign Administrative Law Judge (ALJ)
8/17/98	DOAH designates ALJ
8/20/98	DEP finds application complete, notifies City of names and addresses of affected agencies/parties entitled to receive notice and application
8/27/98	Kissimmee distributes SCA/DEP distributes schedule of dates
9/4/98	City publishes notice of filing the SCA
9/20/98	City Publishes Notice of Land Use Hearing
9/26/98	Agencies submit SCA Sufficiency statements to DEP
10/4/98	DEP determines sufficiency of SCA
10/20/98	403.508(4)(c) Deadline to file to be a party to prior Land Use Hearing (15 days prior to Hearing)
10/26/98	Agencies file Preliminary Statements of Issues with DEP
11/17/98	Land Use Hearing
12/8/98	Finding of Sufficiency
1/24/99	Agency Reports filed with DEP
2/9/99	Potential Siting Board hearing on Land Use Order
2/15/99	Internal DEP Deadline for input to SCO for recommendations for approval/disapproval, and for permit provisos/conditions of certification
3/3/99	403.508(4) deadline for Agencies to file to be a Party to the Certification Hearing

4/2/99

Draft Title V Permit due

4/2/99

DEP Site Certification Analysis Report due

4/16/99

Publish Notice of Certification Hearing

5/2/99

403.508(4)(e) Deadline for Other Parties to file for Party status

6/1/99

Statutory Date for start of Certification Hearing conducted by ALJ

12/08/98

FINAL DETERMINATION

Kissimmee Utility Authority

Amendment of Permit No. AC-0970043-003, PSD-FL-182
Cane Island Facility

An Intent to Issue an air construction permit amendment for Kissimmee Utility Authority's (KUA) Cane Island Facility located near Intercession City, Osceola County was distributed on September 30, 1996. The Notice of Intent was published in the Orlando Sentinel on October 6, 1996. Comments were submitted by KUA in response to the public notice. KUA requested that annual compliance with the NO_x standard be demonstrated using data collected as part of the annual Relative Accuracy Test Audit (RATA) testing instead of using data recorded by the continuous emissions monitors. The department concludes this proposed procedure meets the intended NO_x compliance testing requirement. In addition, KUA requested that excess emissions be reported semiannually instead of quarterly using data collected by the continuous emissions monitors. KUA also requested that monitoring of water to fuel and fuel-bound nitrogen be waived since they will report excess emissions using the data collected by the continuous monitoring system. This procedure is more stringent than the applicable New Source Performance Standards (NSPS) requirement.

The final action of the Department will be to issue the permit amendment as proposed.

RECEIVED

AUG 18 1997

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT MODIFICATION

PERIGEE TECHNOLOGICAL
SERVICES, INC.

In the Matter of an
Application for Permit Modification

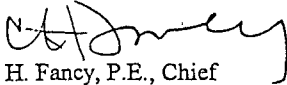
Mr. A. K. Sharma
Kissimmee Utility Authority
1701 West Carroll Street
Kissimmee, Florida 34741

DEP File No. 0970043-003C
AC49-205703, PSD-FL-182
Cane Island Facility
Osceola County

Enclosed is a letter that modifies Permit Number AC49-205703 (PSD-FL-182). The modification makes the following changes: 1) compliance with the nitrogen oxide emission limit will be demonstrated by using nitrogen oxide emission data collected during the annual Relative Accuracy Test Audit (RATA) testing; 2) removes the requirement for annual testing for particulate matter, sulfuric acid mist and VOC; 3) specifies that measured NO_x emissions shall not be ISO corrected for comparison with the BACT standard; 4) excess emissions will be reported semiannually using data collected by the continuous emissions monitors and 5) monitoring of water to fuel and fuel-bound nitrogen will be waived as long as KUA follows excess emissions reporting procedures which are at least as stringent or are more stringent than the New Source Performance Standards (NSPS). This permit modification is issued pursuant to Section 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., 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 Legal Office; 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 14 (fourteen) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.


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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT MODIFICATION (including the FINAL permit modification) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 8-15-97 to the person(s) listed:

Mr. A. K. Sharma, Kissimmee Utility Authority *
Mr. Jerome Guidry, P.E., Perigee
Mr. Brian Beals, EPA
Mr. John Bunyak, NPS
Mr. Len Kozlov, CD

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date,
pursuant to §120.52(7), Florida Statutes, with the designated
Department Clerk, receipt of which is hereby acknowledged.


(Clerk)

8-15-97
(Date)



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

August 12, 1997

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: Permit Modification AC49-205703 (PSD-FL-182)
DEP File Number: 0970043-003
Modification of Compliance Testing Methods

The Department hereby modifies the following Specific Conditions related to compliance testing.

Specific Condition 8:

Initial Compliance with the NO_x, SO₂, sulfuric acid mist, CO, PM, PM₁₀, 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 for SO₂, NO_x, and CO only, 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~~ Rule 62-297.401, F.A.C.

- | | |
|------------|---|
| 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 |
| 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 |

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

Annual compliance with the NO_x standard may be determined by using data collected as part of the annual Relative Accuracy Test Audit (RATA) testing as described in 40 CFR 60, Appendix B, Performance Specification 2, Section 7.1.2, instead of performing Methods 7E and 20 as separate tests. EPA Method 10 will be conducted simultaneously with the NO_x/O₂ RATA tests. The 20-30 minute tests conducted for the RATA testing will be strung together in a manner that fulfills additional requirements of EPA Methods 10 and 20 as to test run time (3 one hour runs) and O₂ stratification investigation. The collected data will be bias corrected to comply with the RATA test requirements, but will not be bias corrected for compliance with NSPS so as to meet the requirements of methods 10 and 20 (the NSPS test methods). No less than eight test points will be used for the RATA testing which will comply with both the RATA test requirements and the NSPS test requirements. The NO_x span for methods 20 and 7E should not exceed 50 ppm instead of a span of 300 ppm as required by Subpart GG. Mass emissions of NO_x and CO shall be determined pursuant to the procedures in 40 CFR 60, Appendix A, Method 19 or 40 CFR 75, Appendix F.

Specific Condition 10:

Compliance with the SO₂ 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 for sulfur content of gaseous fuel.

Specific Condition 13:

During performance tests, to determine compliance with the allowable NSPS NO_x standard, measured NO_x emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_x = (NO_{x\text{ obs}}) \left(\frac{P_{ref}}{P_{obs}} \right)^{0.5} e^{19(H_{obs} - 0.00633)} \left(\frac{288^\circ K}{T_{amb}} \right)^{1.53}$$

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, ppmvd.

P_{ref} = Reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure.

- P_{obs} = Measured combustor inlet absolute pressure at test ambient pressure.
- H_{obs} = Specific humidity of ambient air at test.
- e = Transcendental constant (2.718).
- T_{amb} = Temperature of ambient air at test ($^{\circ}K$).

Note: Measured NO_x emissions will not be ISO corrected for comparison with the BACT standard.

Specific Condition 14:

Test results will be the average of 3 valid runs, each to be of at least one hour in duration to comply with EPA Method 10. Each 60-minute test may be divided into segments that conform with RATA test run times (20-30 minutes; see Specific Condition 8). The Central District office will be notified at least 30 days in writing in advance of the compliance test(s). The sources shall operate between 95% and 100% of permitted capacity during the compliance test(s) as adjusted for ambient temperature. Compliance test results shall be submitted to the Central District office no later than 45 days after completion.

Specific Condition 16:

The permittee shall comply with the following requirements:

- (a) Install, calibrate, maintain, and operate a continuous emission monitor in each stack to measure and record the nitrogen oxides emissions from each source. The continuous emission monitor must comply with 40 CFR 60, Appendix B, Performance Specification 2 (July 1, 1992);
- (b) A continuous monitoring system shall be installed to monitor and record the fuel consumption on each unit. ~~While water injection is being utilized for NO_x control, the water to fuel ratio at which compliance is achieved shall be incorporated into the permit and shall be continuously monitored.~~ The system shall meet the requirements of 40 CFR Part 60.334, Subpart GG; except that the monitoring of water to fuel ratio and fuel bound nitrogen is waived as long as the permittee will report excess emissions using the data collected by the continuous monitoring system in accordance with the following conditions:
 1. Each NO_x CEMs must be capable of calculating NO_x emissions concentrations corrected to 15% O_2 and ISO conditions.
 2. Monitor data availability shall be no less than 95 percent on a quarterly basis.
 3. NO_x CEMS should provide at least 4 data points for each hour and calculate a one-hour average.

To implement condition (b)1, KUA shall use ambient data (temperature, relative humidity, pressure) to correct excess emissions data to ISO conditions if requested by the Department. If monitor availability drops below 95% on a quarterly basis as prescribed in condition (b)2, KUA shall use water to fuel ratio and fuel-bound nitrogen data to monitor excess emissions in subsequent quarters until the minimum CEMS monitor availability is above 95%. The use of CEMS to monitor excess emissions is more stringent than the surrogate parameter monitoring in 40 CFR 60.334 since the CEMS directly measures NO_x emissions. The CEMS also provides monitoring when no water injection is used to control NO_x emissions (i.e., when firing natural gas, dry low NO_x burners are used).

- (c) In addition, literature on equipment selected shall be submitted as it becomes available. A CT-specific graph of the relationship between ambient temperature and heat inputs to the CT shall be submitted to DEPR's Central District office and the Bureau of Air Regulation.

Specific Condition 23

Semi-annual Quarterly excess emission reports, in accordance with the July 1, 1992 version of 40 CFR 60.7 and 60.334 shall be submitted to DEPR's Central District office. Excess emissions for NO_x shall be reported using data collected by the continuous emissions monitors. Since CEM data will be used for the reporting of excess emissions for NO_x the monitoring of water/fuel ratio and fuel-bound nitrogen required by 40 CFR 60, Subpart GG is waived.

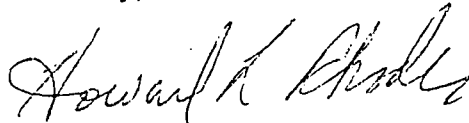
References to ISO conditions in footnote C) in Tables 1 and 2:

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

The department did not change the annual test requirement for SO₂ emissions in Specific Condition 8 because compliance with the SO₂ emission limit can also be determined by fuel analysis as stated in Specific Condition 10.

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