

File

Florida Department of
Environmental Protection

Memorandum

TO: Len Kozlov, CD

FROM: Bruce Mitchell *BM*

DATE: April 29, 1997

SUBJECT: Completeness Review of an Application Package for a Title V Operation Permit
Kissimmee Utility Authority, Cane Island: 0970043-002-AV

Enclosed is an application package for a Title V operation permit that is being processed in Tallahassee. Please review the package for completeness and respond in writing by May 30, 1997, if you have any comments. Otherwise, no response is required.

It is very important to verify the compliance statement regarding the facility, since we do not have a readily effective means of determining compliance at the time the application was submitted. Please advise if you know of any emissions unit(s) that were not in compliance at that time and provide supporting information. You should have a copy on file of the original initial Title V permit application submittal. Also, please do not write on these documents.

If there are any questions, please call the project engineer, Joe Kahn, at 904/488-1344 or SC: 278-1344.

RBM/bjb

Enclosure

cc: Alan Zahm

4/30/97 *Joe Kahn*
Reading File

Appendix H-1, Permit History/ID Number Changes

Kissimmee Utility Authority

[DRAFT/PROPOSED/FINAL]Permit No.: 0970043-002-AV
Facility ID No.: 0970043

Permit History (for tracking purposes):

E.U.

<u>ID No</u>	<u>Description</u>	<u>Permit No.</u>	<u>Issue Date</u>	<u>Expiration Date</u>	<u>Extended Date</u>	<u>Revised Date(s)</u>
-001	40 MW Simple Cycle CT	AC49-205703/ PSD-FL-182	04/07/93			
-002	120 MW Combined Cycle CT	AC49-205703/ PSD-FL-182	04/07/93			

(if applicable) ID Number Changes (for tracking purposes):

From: **Facility ID No.:** 30ORL490043

To: **Facility ID No.:** 0970043

Notes:

- 1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.
- 2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.
{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate



-file-

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

October 11, 1995

Mr. A.K. Sharma, P.E.
Director of Power Supply
Kissimmee Utility Authority
Post Office Box 423219
Kissimmee, Florida 34742-3219

Dear Mr. Sharma:

This letter is in response to your request for an extension of air construction permit no. AC 49-205703.

Enclosed is a copy of recently enacted rule language which extends your air construction permit (Rule 62-213.420(1)(a)4., F.A.C.). Therefore, no action is required by the Department and your \$50 fee will be refunded.

Please note the new application dates for Title V permits have been changed. The acid rain part of the application is due not later than January 1, 1996. The remaining part of your Title V application is due on June 15, 1996.

Please contact John Brown at the letterhead address or by calling him at (904)488-1344 if you have any questions.

Sincerely,

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

CHF/jb/k

A.K. (BEN) SHARMA, P.E.
DIRECTOR OF POWER SUPPLY



P.O. BOX 423219 KISSIMMEE, FLORIDA 34742-3219
(407) 933-7777 • FAX: (407) 847-0787

0005539

dk/
8.25.94

30-ORL-79-0043

August 15, 1994

Bureau of Air Regulations
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Attention: Mr. John Brown

RE Permit to Operate
Permit No. AC49-205703

Gentlemen:

Pursuant to the telephone conversation you had with Amy Carlson of Black & Veatch on July 8, 1994, Kissimmee Utility Authority (KUA) is requesting an amendment of the construction permit (Permit No. AC49-205703) for our **Cane Island Facility**. The proposed amendment would extend the Authority to Construction/Prevention of Significant Deterioration permit expiration date and allow KUA to operate its facility under its existing construction permit. This letter provides revised Specific Condition language for amendment of the permit and includes the required \$250 amendment fee.

This letter also serves to respond to the Florida Department of Environmental Protection's (FDEP's) June 30, 1994 letter to KUA requesting the confirmation of actual emissions and the payment of emission fees.

If you have any questions concerning the information or requests contained within this letter, please call Amy Carlson at Black & Veatch (913) 339-7425.

Background

KUA received the state of Florida air construction permit for their Cane Island Units 1 and 2 on April 4, 1993. This permit expires on March 31, 1995, unless extension is requested (according to Specific Condition 26 of the permit) at least 60 days prior to the expiration date, and the extension is granted by the FDEP. Specific Condition 27 of the permit requires that an operating permit application be submitted

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to the FDEP at least 90 days prior to the expiration date of the construction permit. Without an extension, the deadline to submit an operation permit application would be on December 31, 1994 for Units 1 and 2.

Unit 1 is presently being constructed and is scheduled to begin initial operation this month. After compliance testing, it is expected that this Unit will commence commercial operation in September, 1994. Unit 2 is also under construction. Initial operation for testing purposes is scheduled to begin in December 1994 or early 1995.

Thus, without an extension of the construction permit, an operating permit application would need to be submitted prior to the stack testing of Unit 2. In addition, the current Florida regulations implementing the Title V operating program would require submittal of the Title V operating permit application by April 2, 1995.

Therefore, to ensure that the facility can commence operation under a valid permit and to avoid the duplicity of effort in submitting two operating permit applications within four months of each other, KUA is requesting that the construction permit be extended.

Construction Permit Extension

In your conversation with Amy Carlson on July 8, 1994, you mentioned that the above request may be granted after supplying FDEP with the following information.

1. Requested Amendment to Construction Expiration Date.
2. A request for the facility to operate under the terms and conditions specified in the construction permit.
3. Revised permit conditions which allow the submittal of the operating permit application consistent with Title V requirements.
4. A statement that the permit extension does not relieve the owner/operator from the original compliance testing schedule set forth in the construction permit.

The requested information is provided in the following paragraphs.

Requested Amendment to Construction Expiration Date

From March 31, 1995 to July 9, 1995

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Revision of Specific Permit Conditions

Add Specific Condition 28: The facility shall be allowed to commence operation in accordance with all the terms and provisions included herein, after conducting stack compliance testing as specified in Specific Condition 8. This extended and amended permit will constitute a temporary Permit to Operate upon commencement of operation and is valid through the expiration date listed herein.

Specific Condition 27: An application for an operation permit must be submitted to the Central District office at least 90 days prior to the expiration date of this construction permit in accordance with the applicable operating permit rules. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Specification Condition 7: Any other operating parameters established during compliance testing and/or inspection that will ensure the proper operation of this facility may be included in the operating permit or in this amended construction permit upon sufficient request and documentation to the FDEP by the owner/operator.

Because the compliance testing condition (Specific Condition 8) sets the schedule based upon initial operation, and not the expiration date of the permit, Specific Condition 8 does not have to be revised to ensure compliance with NSPS requirements.

Emission Fees

On June 30, 1994, the FDEP sent a letter to KUA requesting verification of actual emissions during 1993, and the appropriate emissions fees to be provided to the FDEP.

Cane Island Units 1 and 2 were under construction in 1993 and were not operational in any capacity. Therefore, the actual emissions resulting from the operation of the units was 0 tpy. Because the Cane Island Plant is a Title V facility and will not have a permit to operate until 1995, an emission fee will not need to be paid until the first quarter of 1996 (i.e., between January 15 and March 1 of 1996) per F.A.C. regulation 17-213.200. However, because KUA is requesting that the facility be allowed to operate under an extended construction permit, any emissions that occur as a result of commercial operation in 1994 will be quantified and submitted with the appropriate fee to the FDEP in the first quarter of 1995. DEP Form

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17-213.900(1) "Major Air Pollution Source Annual Operation License Fee Form" will be completed and submitted with the licensing fee. Units 1 and 2 are both affected units under Title IV, and the annual licensing fee for 1996 through 1999 of \$250 (per year) will be submitted to the FDEP as appropriate.

We look forward to your review and expedient resolution of this matter.

Sincerely,

A. K. Sharma

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

AKS/css

Enclosure

cc: Hobart Jacobs, B&V
Jeff Ling
Amy Carlson, B&V

J. Heron
C. Collins, et al



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

PERMITTEE:
Kissimmee Utility Authority
1701 West Carroll Street
Kissimmee, Florida 34741

Permit Number: AC49-205703
PSD-FL-182
Expiration Date: March 31, 1995
County: Osceola
Latitude/Longitude: 28°16'40"N
81°30'42"W
Project: A 120 MW Combined
Cycle Turbine and a 40 MW Simple
Cycle Turbine

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-209 through 17-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Kissimmee Utility Authority proposes to operate a 40 MW simple cycle combustion turbine (SCCT) and a 120 MW combined cycle combustion turbine (CCCT) consisting of one combustion turbine, one steam turbine, one heat recovery steam generator and ancillary equipment. This facility is located near **Intercession City**, Osceola County, Florida. The UTM coordinates are Zone 17, 447.722 km East and 3127.685 km North.

The sources shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Kissimmee Utility Authority (KUA) applications received on November 15, 1991, and June 2, 1992.
2. Department's letter dated June 30, 1992.
3. KUA's letter received on July 30, 1992.
4. KUA's letters received on August 17 and October 8, 1992.

PERMITTEE:
Kissimmee Utility Authority

Permit Number: AC 49-205703
PSD-FL-182
Expiration Date: March 31, 1995

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed 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.

PERMITTEE:
Kissimmee Utility Authority

Permit Number: AC 49-205703
PSD-FL-182
Expiration Date: March 31, 1995

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

PERMITTEE:
Kissimmee Utility Authority

Permit Number: AC 49-205703
PSD-FL-182
Expiration Date: March 31, 1995

GENERAL CONDITIONS:

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

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

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;

PERMITTEE:
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GENERAL CONDITIONS:

- the person responsible for performing the sampling or measurements;
- the dates 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 corrected promptly.

SPECIFIC CONDITIONS:

Emission Limits

1. The maximum allowable emissions from this source shall not exceed the emission rates listed in Tables 1 and 2.

2. Visible emissions during startup, shutdown, or period of part load operation shall not exceed 20% opacity during any 6-minute period. At full load operation, visible emissions shall not exceed 10% opacity.

Operating Rates

3. This source is allowed to operate continuously (8760 hours per year).

4. This source is allowed to use natural gas as the primary fuel and low sulfur No. 2 distillate oil as the secondary fuel up to 1,000 hours per year. Distillate fuel oil No. 2 (0.05% S) shall not be burned if natural gas is available.

5. The permitted materials and utilization rates for the combined cycle gas turbine shall not exceed the values as follows:

40 MW Simple Cycle Turbine

- a) The maximum heat input of 371 MMBtu/hr (LHV) at ISO conditions (base load) for distillate fuel oil No. 2.
- b) The maximum heat input of 367 MMBtu/hr (LHV) at ISO conditions (base load) for natural gas.

PERMITTEE:
Kissimmee Utility Authority

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Expiration Date: March 31, 1995

SPECIFIC CONDITIONS:

120 MW Combined Cycle Turbine

- a) The maximum heat input of 928 MMBtu/hr (LHV) at ISO conditions (base load) for distillate fuel oil No. 2.
- b) The maximum heat input of 869 MMBtu/hr (LHV) at ISO conditions (base load) for natural gas.

6. Any change in the method of operation, equipment or operating hours shall be submitted to DER's Bureau of Air Regulation.

7. Any other operating parameters established during compliance testing and/or inspection that will ensure the proper operation of this facility may be included in the operating permit.

Compliance Determination

8. Compliance with the NO_x, SO₂, 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, 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
or
Stationary Sources
- 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.

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Kissimmee Utility Authority

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Expiration Date: March 31, 1995

SPECIFIC CONDITIONS:

9. Method 5 or Method 17 must be performed on each unit to determine the initial compliance status of particulate matter emissions of the unit. Thereafter, the opacity emissions test may be used unless 10% opacity is exceeded.

10. Compliance with the SO₂ 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.

11. Trace elements of Beryllium (Be) shall be tested during initial compliance test using EMTIC Interim Test Method. As an alternative, Method 104 may be used; or Be may be determined from fuel sample analysis using either Method 7090 or 7091, and sample extraction using Method 3040 as described in the EPA solid waste regulations SW 846.

12. Mercury (Hg) shall be tested during initial compliance test using EPA Method 101 (40 CFR 61, Appendix B) or fuel sampling analysis using methods acceptable to the Department.

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

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

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, ppmv.

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 (°K).

PERMITTEE:
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SPECIFIC CONDITIONS:

14. Test results will be the average of 3 valid runs. 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.

15. The permittee shall comply with the following by 1/1/98:

a) For the combined cycle unit (PG7111EA), if the 15 (gas)/42 (oil) ppmv emission rates cannot be met by 1/1/98, SCR will be installed. Hence, the permittee shall install a duct module suitable for future installation of SCR equipment.

b) For the simple cycle unit (LM6000), the manufacturer will attempt to achieve a maximum NO_x emission level of 15 (gas)/42 (oil) ppmv by 1/1/98. Should this level of control not be achieved when the compliance demonstration stack tests are performed, the permittee must provide the Department with expected compliance dates which will be updated annually. After 1/1/98, if the compliance schedule has not been met, the Department may require SCR be installed since the exhaust temperature has an acceptable range for SCR installation.

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, Subpart GG;

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

17. Sulfur and nitrogen content and lower heating value of the fuel being fired in the combustion turbines shall be determined as specified in 40 CFR 60.334(b). The records of fuel oil usage shall

PERMITTEE:
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Expiration Date: March 31, 1995

SPECIFIC CONDITIONS:

be kept by the company for a two-year period for regulatory agency inspection purposes. For sulfur dioxide, periods of excess emissions shall be reported if the fuel being fired in the gas turbine exceeds 0.05 percent sulfur by weight.

Rule Requirements

18. This source shall comply with all applicable provisions of Chapter 403, Florida Statutes, Chapters 17-209 through 17-297, Florida Administrative Code and 40 CFR (July, 1991 version).

19. The sources shall comply with all requirements of 40 CFR 60, Subpart GG, and F.A.C. Rule 17-296.800, Standards of Performance for Stationary Gas Turbines.

20. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 17-210.300(1)).

21. This source shall be in compliance with all applicable provisions of F.A.C. Rules 17-210.650: Circumvention; 17-210.700: Excess Emissions; 17-296.800: Standards of Performance for New Stationary Sources (NSPS); 17-297: Stationary Sources Emission Monitoring; and, 17-4.130: Plant Operation-Problems.

22. If construction does not commence within 18 months of issuance of this permit, then the permittee shall obtain from DER a review and, if necessary, a modification of the control technology and allowable emissions for the unit(s) on which construction has not commenced (40 CFR 52.21(r)(2)).

23. Quarterly excess emission reports, in accordance with the July 1, 1992 version of 40 CFR 60.7 and 60.334 shall be submitted to DER's Central District office.

24. Fugitive dust emissions, during the construction period, shall be minimized by covering or watering dust generation areas.

25. Pursuant to F.A.C. Rule 17-210.300(2), Air Operating Permits, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. These reports shall include, but are not limited to the following: sulfur, nitrogen contents and the lower heating value of the fuel being fired, fuel usage, hours of operation, air emissions limits, etc. Annual reports shall be sent to the Department's Central District office by March 1 of each calendar year.

PERMITTEE:
Kissimmee Utility Authority

Permit Number: AC 49-205703
PSD-FL-182
Expiration Date: March 31, 1995

SPECIFIC CONDITIONS:

26. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

27. An application for an operation permit must be submitted to the Central District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 7 day
of April, 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Virginia B. Wetherell
Virginia B. Wetherell
Secretary

KISSIMMEE UTILITY AUTHORITY - AC49-205703 (PSD-FL-182)
40 MW SIMPLE CYCLE GAS TURBINE

Table 1 - Allowable Emission Rates

Pollutant	Fuel ^A	Allowable Emission ^C		Basis
		Standard/Limitation		
NO _x	Gas	15 ppmvd @ 15% O ₂ & ISO	(22 lbs/hr; 90.86 TPY) ^B	BACT
	Gas	25 ppmvd @ 15% O ₂ & ISO	(36 lbs/hr; 148.68 TPY)	BACT
	Oil*	42 ppmvd @ 15% O ₂ & ISO	(63 lbs/hr; 15.75 & 31.5 TPY)	BACT
	Oil**	42 ppmvd @ 15% O ₂ & ISO	(63 lbs/hr; 275.9 TPY)	
CO	Gas	30 ppmvd (40 lbs/hr; 165.2 TPY)		BACT
	Oil*	63 ppmvd (76 lbs/hr; 19 & 38 TPY)		BACT
	Oil**	63 ppmvd (76 lbs/hr; 332.9 TPY)		
VOC	Gas	1.4 lbs/hr; 5.8 TPY		BACT
	Oil*	3 lbs/hr; 0.75 & 1.5 TPY		BACT
	Oil**	3 lbs/hr; 13.1 TPY		
PM ₁₀	Gas	0.0245 lb/MMBtu		BACT
	Oil	0.0323 lb/MMBtu		BACT
SO ₂	Gas	nil		BACT
	Oil	20 lbs/hr; 5.0 & 10 TPY		BACT
	Oil**	20 lbs/hr; 87.6 TPY		
H ₂ SO ₄	Gas	nil		BACT
	Oil*	2.2 lbs/hr; 0.55 & 1.1 TPY		BACT
	Oil**	2.2 lbs/hr; 9.6 TPY		
Opacity	Gas	10% opacity ^D		BACT
	Oil	10% opacity ^D		BACT
Hg	Oil	3.1 x 10 ⁻⁶ lb/MMBtu		Appl.
As	Oil	4.2 x 10 ⁻⁶ lb/MMBtu		Appl.
Be	Oil	2.5 x 10 ⁻⁶ lb/MMBtu		BACT
Pb	Oil	2.8 x 10 ⁻⁵ lb/MMBtu		Appl.

A) Fuel: Natural Gas: Emissions are based on 8260 hours per year operating time.

Fuel: No. 2 Distillate Fuel Oil (0.05% S):

* Emissions are based on 500 and 1000 hours per year operating time.

** Emissions are based on 8760 hours per year burning oil. Continuous oil burning (8760 hrs/yr) is not allowed unless natural gas is not available.

B) The NO_x maximum limit will be lowered to 15 ppm by 1/1/98 using appropriate combustion technology improvements. Should this level of control not be achieved when the compliance demonstration stack tests are performed, the permittee must provide the Department with the expected compliance dates which will be updated annually. After 1/1/98, if the compliance schedule has not been met, the Department may require SCR be installed since the exhaust temperature has an acceptable range for SCR installation.

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

D) 10% opacity at full load conditions.

KISSIMMEE UTILITY AUTHORITY - AC49-205703 (PSD-FL-182)
120 MW COMBINED CYCLE GAS TURBINE

Table 2 - Allowable Emission Rates

Pollutant	Fuel ^A	Allowable Emission ^C		Basis
		Standard/Limitation		
NO _x	Gas	15 ppmvd @ 15% O ₂ & ISO	(53 lbs/hr; 219 TPY) ^B	BACT
	Gas	25 ppmvd @ 15% O ₂ & ISO	(98 lbs/hr; 405 TPY)	BACT
	Oil*	42 ppmvd @ 15% O ₂ & ISO	(170 lbs/hr; 43 & 85 TPY)	BACT
	Oil**	42 ppmvd @ 15% O ₂ & ISO	(170 lbs/hr; 745 TPY)	BACT
CO	Gas	20 ppmvd (54 lbs/hr; 223 TPY)		BACT
	Oil*	20 ppmvd (65 lbs/hr; 16 & 32.5 TPY)		BACT
	Oil**	20 ppmvd (65 lbs/hr; 285 TPY)		BACT
VOC	Gas	2.0 lbs/hr; 8.3 TPY		BACT
	Oil*	5 lbs/hr; 1.3 & 2.5 TPY		BACT
	Oil**	5 lbs/hr; 21.9 TPY		BACT
PM ₁₀	Gas	0.0100 lb/MMBtu		BACT
	Oil	0.0162 lb/MMBtu		BACT
SO ₂	Gas	nil		BACT
	Oil*	52 lbs/hr; 13 & 26 TPY		BACT
	Oil**	52 lbs/hr; 228 TPY		BACT
H ₂ SO ₄	Gas	nil		BACT
	Oil*	5.72 lbs/hr; 1.4 & 2.86 TPY		BACT
	Oil**	5.72 lbs/hr; 25.1 TPY		BACT
Opacity	Gas	10% opacity ^D		BACT
	Oil	10% opacity ^D		BACT
Hg	Oil	3.0 x 10 ⁻⁶ lb/MMBtu		Appl.
As	Oil	4.2 x 10 ⁻⁶ lb/MMBtu		Appl.
Be	Oil	2.5 x 10 ⁻⁶ lb/MMBtu		BACT
Pb	Oil	2.8 x 10 ⁻⁵ lb/MMBtu		Appl.

A) Fuel: Natural Gas: Emissions are based on 8260 hours per year operating time.

Fuel: No. 2 Distillate Fuel Oil (0.05% S):

* Emissions are based on 500 and 1000 hours per year operating time.

** Emissions are based on 8760 hours per year burning oil. Continuous oil burning (8760 hrs/yr) is not allowed unless natural gas is not available.

B) The NO_x maximum limit will be lowered to 15 ppm by 1/1/98 using appropriate combustion technology improvements or SCR.

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

D) 10% opacity at full load conditions.

