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

RECEIVED

JUN 25 1999

BUREAU OF AIR REGULATION

June 22, 1998

Mr. A. A. Linero, P.E. Administrator New Service Review Section Department of Environmental Protection Twin Towers Office Building 2600 Blair Stone Road Tallahassee, FL 32399-2400

Ref:

DEP File No. 0970043-005-AC (PSD-FL-182) Cane

Island Power Park - Unit 1

Dear Mr. Linero:

This is to acknowledge the receipt of your letter dated May 26, 1998.

In regards to your understanding of the situation as described by myself in my letter (received in your office on April 16, 1998) and as recapitulated with the four bullets in your above mentioned May 26 letter, I have to restate/revise your each bullet as follows:

- GE has and still offers improvements to the LM6000PA model with respect to conversions, upgrades and modifications. Conversion of a LM6000PA to DLE on gas (PB) is possible but may not be economically viable without making the complete modification to the LM6000PD configuration.
- Correct statement. The PD model that is commercially offered provides for Nox at 25 ppm when operating on gas only.
- This would be KUA's decision to implement an upgrade of the current Cane Island LM6000PA unit to an LM6000PD unit. While GE has delivered units with dual fuel DLE capability, they are still finalizing the Nox levels that the machine can be expected to accomplish when operating on liquid fuel. An LM6000 product with dual fuel capability at 15/42 ppm is not currently commercially available.
- This statement needs updating based on the testing to date. We understand that GE is currently scheduled to provide the FDEP with a presentation update on the results of testing to date at CSW's Orange Cogen facility on July 9, 1998. More is anticipated to be known after the presentation.

In response to the three questions posed in your letter, I have to state as follow:

Question 1:

If KUA has plans to upgrade the PA machine to a PD machine (if this machine meets No_{x}

emission expectation) in the near future?

Answer:

We are all aware of GE's announcement that the company has discontinued the manufacturing of the PA model and has no plans to improve it either. Under the circumstances it will be imperative for KUA to investigate the possibility of upgrading the existing PA to some other model which will enable us to meet

Mr. A. A. Linero June 22, 1998 page 2

DEP's requirements. However, the ultimate decision will have to come from KUA's governing body and that too after certain financial negotiations and understanding with GE concerning the various possible technical solutions. The range of available options KUA should consider depends on the results of the 1998 dual fuel performance tests of the LM6000PD machines and the need for KUA to obtain the most cost effective solution.

Question 2:

Would KUA consider a reduction in hours of operation of Unit 1 to the level of a peaking unit (~1500 hrs/yr.) for the life of the project?

Answer:

I agree that Unit 1 (LM6000 Gas Turbine) can be classified as a peaking unit. However, it is very difficult to define the running hours of a peaking unit.

Depending on the price of natural gas and the efficiency of the machine (for Unit 1 the efficiency is approximately 40%) even a peaking unit may be called to run in an intermediate mode (2500 to 3500 hrs/yr.) Furthermore, you may be aware of the recent report from Florida Public Service Commission which projects that based on the current expansion plans of the electric utilities in the state, the reserve margin of the installed capacity will dwindle down to 6 to 8 % level by the winter of 2000/2001. Under that type of scenario we can expect all available generating units to be called upon for service to avoid a black-out situation in the State. In fact we do not even have to wait until the year 2000. During the recent heat wave in the State (three weeks in May & past two weeks in June), Unit 1 at Cane Island is being dispatched daily.

Based on the above facts, we feel, it will be inappropriate to limit the running hours of a very efficient machine to any rigid figure for the life of the project as you have suggested.

Ouestion 3:

Any information available regarding typical emission limits for small new aerodirivative

units used as peaking units.

Answer:

In light of my response to question 2 above, I feel that question 3 is a redundant one. Nevertheless, I beg to state that I myself do not have any information regarding such emission limits. However, per a copy of this letter I am requesting Ms. Carlson of Black & Veatch to provide you with any relevant information that she may have.

I hope I have adequately explained our position on the issue. Expecting to hear from you.

Sincerely,

An sharme

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

AKS/rw

cc:

Jeff Ling, KUA Robert Miller, KUA Ziegy Biernacki, GE Amy Carlson, B&V James C. Welsh, KUA

CC: J. Heron S. Kahn



Department of **Environmental Protection**

Lawton Chiles Governor

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

Secretary

Virginia B. Wetherell

July 22, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

DEP File No. 0970043-005-AC (PSD-FL-182)

Cane Island Facility - Unit 1 - Request for Permit Modification

Your letter of June 22, 1998

Dear Mr. Sharma:

The Department has reviewed Kissimmee Utility Authority's (KUA) letter dated June 22, 1998, in response of the Department's letter dated April 16, 1998. Based on our review of the June 22 letter and considering your response to Question 1 of this letter, we have decided, before taking Department action in your request, to wait until the final results of the 1998 dual performance tests of the LM6000PD machine are available. Please submit these GE test results as soon as they are available to you.

We will continue evaluating the additional information provided to us by G.E on its presentation of July 9, 1998 and the KUA information dated April 15, 1998. As of today, your application remains incomplete. If you have any questions regarding this matter, please contact Ms. Teresa Heron at (850)921-9529.

Sincerely,

A. A. Linero, P.E.

Administrator

New Source Review Section

-AAL/th/t

cc: Mr. Jeff Ling, KUA

Ms. Amy Carlson, B & V

Mr. Brian Beals, EPA

Mr. John Bunyak, NPS

Mr. Len Kozlov, CD

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Department of Environmental Protection

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

Virginia B. Wetherell Secretary

May 26, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: DEP File No. 0970043-005-AC (PSD-FL-182) Cane Island Facility - Unit 1

Dear Mr. Sharma:

The Department has reviewed Kissimmee Utility Authority's (KUA) letter received on April 16, 1998, requesting a modification to its construction permit for Cane Island Unit 1. We also discussed the matter with Jeff Ling during a meeting about the planned Cane Island Unit 3. Based on our review of the letter and our discussions we have the following understanding and information requirements:

- The LM6000PA model installed at Cane Island has been discontinued by GE, and there are no plans to improve the "PA."
- The "PD" model (the DLN combustor version of the "PC") became commercially available in late 1997.
- There is a possibility of upgrading the Cane Island LM6000PA to an LM6000PD when going to a Dual Fuel DLE system.
- The expected commercial introduction of the dual fuel PD machine (if the 15/42 ppm emission levels are technically achievable and economically feasible based on performance tests conducted in 1998) will not occur before the year 2000.

Please advise if KUA has plans to upgrade the PA machine to a PD machine (if this machine meets NO_x emission expectations) in the near future. Since the actual operating hours of Unit 1 have been less than 800 hours per year, would KUA consider a reduction in hours of operation of this Unit to the level of a peaking unit (~1500 hours /yr) for the life of the project? If so, please provide any information available to you regarding typical emission limits for new, small aeroderivative units when used as peaking units. At a previous meeting, Ms. Carlson of Black and Veatch said she could probably provide such information.

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

The application is incomplete per our discussion with your representatives. If you have any questions regarding this matter, please contact Ms. Teresa Heron at (850)921-9529.

Sincerely,

A. A. Linero, P.E.

Administrator

New Source Review Section

cc: Mr. Jeff Ling, KUA

Ms. Amy Carlson, B & V

Mr. Brian Beals, EPA

Mr. John Bunyak, NPS

Mr. Len Kozlov, CD

AAL/th/t



Department of Environmental Protection

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

Virginia B. Wetherell Secretary

April 28, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: Request for an Amendment to Construction Permit No. AC49-205703, PSD-FL-182 Kissimmee Utility Authority, Cane Island Unit 1 NOx Emissions

Dear Mr. Sharma:

The Bureau of Air Regulation received your request for a revision to the above referenced permit. Before we can begin processing your request, we will need a processing fee of \$250 pursuant to Rule 62-4050(4)(r)5, F.A.C. We have forwarded a copy of your request to Mr. Joseph Kahn who will add your request to the Title V application for review.

If you have any questions regarding the construction permit, please call Ms. Teresa Heron at (850)921-9529 or if you have any questions regarding the Title V application, please call Mr. Joseph Kahn at (850)921-9519.

Sincerely,

A. A. Linero, P.E.

Administrator

New Source Review Section

AAL/kt

cc: T. Heron

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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>

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