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



June 22, 1998

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RECEIVED

JUN 25 1999

BUREAU OF AIR REGULATION

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

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> 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/vr.) 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.

Question 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,

A.K. (Ben) Sharma, P.E.

Director of Power Supply

AKS/rw

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