

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



P.O. BOX 423219 KISSIMMEE, FLORIDA 34742-3219
(407) 833-7777 FAX: (407) 847-0787

RECEIVED
NOV 04 1996
BUREAU OF
AIR REGULATION

October 30, 1996

Florida Department of Environmental Protection
Twin Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

**Subject: Permit Number: AC49-205703
NOx Compliance**

Attention: Mr. C.H. Fancy

Gentlemen:

In accordance with Air Construction Permit No. AC 49-205703/PSD-FL-182, Condition No. 15b, Kissimmee Utility Authority (KUA) is hereby providing the FDEP with the documentation and expected compliance dates associated with the LM6000 gas turbine's nitrogen oxides (NOx) emission levels.

Specifically, Condition No. 15b of the permit states "For the simple cycle unit (LM6000), the manufacturer will attempt to achieve a maximum NOx emission level of 15 (gas)/42 (oil) ppmv by 1/1/98. Should this level of control not be achieved...the permittee must provide the Department with expected compliance dates which will be updated annually...".

As documented in the enclosed letter from General Electric, the dry low emission (DLE) development program has not progressed to the point of being able to ensure a retrofit package capable of meeting the 15 ppm NOx rate by January 1, 1998. General Electric believes that a January 1, 1999 compliance date for the 15 ppm NOx emission level is more realistic, and KUA is therefore requesting a change in the compliance date for the LM6000 machine from 1/1/98 to 1/1/99.

Mr. C.H. Fancy
FDEP
October 30, 1996
page 2

Enclosed are the revised application pages from Form 62-210.900(1), "Application for Air Permit-Long Form", for the Cane Island Power Park. The initial operating permit application for this facility was submitted in June of this year.

If you have any questions, please call me at (407) 933-7777 Ext. 1232 or Amy Carlson of Black & Veatch at (913) 458-7425.

Sincerely,

A.K. Sharma

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

AKS/ne

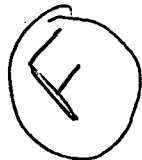
Encl.

cc: James C. Welsh, KUA
Jeff Ling, KUA
Amy Carlson, B&V
Don Schultz, B&V



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104



OCT 17 1996

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OCT 28 1996

BUREAU OF
AIR REGULATION

4APT-ART

Mr. A. A. Linero
Bureau of Air Regulation
Florida Department of Environmental
Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: Kissimmee Utility Authority (PSD-FL-182)

Dear Mr. Linero:

This is to acknowledge receipt of your proposed amendments to the above referenced Prevention of Significant Deterioration (PSD) permit by letter dated September 30, 1996. The proposed amendments relate to the emissions testing requirements which currently exist in the PSD permit. We have reviewed the package as requested and have the following comments on the draft air construction permit for the Kissimmee Utilities Cane Island facility:

1. Based upon Condition No. 8, it appears that an initial test for sulfuric acid mist is not required. Since the permit contains an emission limit for sulfuric acid mist, it is recommended that the Department of Environmental Protection review Condition No. 8 to determine if they actually intended to exempt Kissimmee Utilities from the requirement to conduct an initial compliance test for sulfuric acid mist.
2. It is recommended that the language addressing annual testing provisions in Condition No. 8 be simplified. This condition lists five pollutants for which annual testing is not required. Based upon its understanding of the proposed revision, it appears to Region 4 that the only pollutants for which annual testing will be required are SO₂ and CO. Therefore, Region 4 believes that it would be simpler and less confusing if Condition No. 8 were revised to identify the pollutants for which testing is required, rather than the ones for which testing is not required.

Thank you for the opportunity to review and comment on this package. If you have any questions on these comments, please contact David McNeal or Gregg Worley of my staff at (404) 562-4300.

Sincerely yours,

Paul Stagner for

R. Douglas Neeley
Chief

Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division



GE Power Generation

Global Power Plant Systems Department
General Electric Company
One River Road, Schenectady, NY 12345
518-385-7222

11 October, 1996

Subject: Kissimmee Utility Authority
Cane Island No. 1
DLE upgrade

Mr. A. K. Sharma
Power Supply Department
Kissimmee Utility Authority
P.O.Box 423219
Kissimmee, Florida 34742

RECEIVED

OCT 16 1996

POWER SUPPLY DEPT.

Dear Ben:

GE is aware that Kissimmee Utility Authority (KUA) Cane Island No. 1 Gas Turbine is currently permitted to operate at the Allowable Emission Rate of 25 ppmvd on Gas and 42 ppmvd on Oil. The BACT Determination section of the permit states that "the department has accepted the water injection (LM6000) and the 25 ppmvd (natural gas) /42 ppmvd (oil) at 15%O₂ as BACT for a limited time (up to 1/1/98)". The permit also states that "the manufacturer will attempt to achieve a maximum NO_x emission level of 15 (gas)/42 (oil) ppmvd by 1/1/98," and that "should this level of control not be achieved..... the permittee must provide the Department with expected compliance dates which will be updated annually."

The BACT Determination further states that "it is the Department's understanding that General Electric is developing programs for....the LM6000, to achieve a NO_x emission control level of 9 ppm when firing natural gas. The Department has determined that the following BACT will apply....

b) For the simple cycle unit (LM6000), the manufacturer will attempt to achieve a maximum NO_x emission level of 15(gas)/42(oil) ppmvd by 1/1/98. Should this level of control not be achieved, the permittee must notify the Department of the expected compliance date by 1/1/97."

This letter is to inform you that the GE DLE development program is not currently in a position which would allow us to provide a dry low emission (DLE) retrofit package for the LM6000 at Cane Island to meet the requirements of your air permit by the 1/1/98 date.

GE has undertaken programs to develop the technology for reducing the emissions of the GE gas turbines to the levels listed in your permit and beyond. These are complex and lengthy programs and the progress estimates provided to KUA at the time of the establishment of your permit were based on what we knew then. GE has embarked on these programs for both the heavy duty frame type machines manufactured by GE Power Generation and the aeroderivative type turbines manufactured by the Marine and Industrial Engine Division(M&I) of GE Aircraft Engines. Although the programs have been able to take advantage of achievements in each other's progress, the programs have developed separately due to differences in the equipment and technologies.

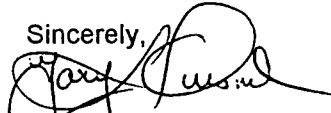
11 October, 1996

There may be some confusion regarding retrofit availability for GE gas turbines with dry low NOx (DLN) combustors because of the dual development programs that GE is conducting. The GE dry low NOx (DLN) development program for our heavy duty frame units is two to three years ahead of the LM 6000 DLE program. DLN retrofit packages for existing heavy duty frame units with steam or water injection are available for some Frame 3, 6B and 7EA gas turbines. In addition, there may be some new frame 7EAs and 7F/FA machines retrofit with advanced DLN combustors. The nature of any combustion development program is such that a database of experience must be established from units operating in commercial service before the advanced (lower NOx) combustor can be made available. In such cases, regulatory agencies have allowed units to go into commercial operation with higher NOx levels with a goal of lower levels in the future. In such cases (for frame units), retrofits of lower NOx combustor may have been committed. The key point to note, however, is that the heavy duty gas turbine DLN program has been successful in meeting its goals and is at least two to three years ahead of the LM DLE program.

GE remains committed to the DLE and DLN development programs for both aeroderivative and heavy duty type gas turbines. No firm date has yet been established for retrofit availability for existing or new LM6000 units; however, key milestone tests significant to the development process are scheduled to be completed during the first half of 1997. Once these tests have been completed, GE will have a firm plan established and will be able to advise KUA as to when the retrofit package for Cane Island No. 1 will be available.

GE will support KUA as necessary in petitioning the Florida DER to allow the Air Permit for Cane Island to be amended such that the required date for operation at 15 ppmvd(gas) and 42 ppmvd(oil) be changed from 1/1/98 to 1/1/99 initially. The change will then bring the permit in line with the state of advancement in technology development of the DLE program. Please contact me with what actions that KUA would like GE to take in the future in this regard.

Sincerely,



Gary L. Quesnel
Project Manager

cc: H. Jacobs	B&V
D. Swanson	GE
J. Such	GE

Fold at line over top of envelope to the right of the return address.

your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. A. K. Sharma
Kissimmee Utility Aut.
1701 W. Carroll St.
Kissimmee, FL
34741

4a. Article Number

P 265 659 188

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

7. Date of Delivery

5/22/97

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

X Public White

8. Addressee's Address (Only if requested and fee is paid)

S Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

P 265 659 188

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

To: Mr. A. K. Sharma	
Street & Number: Kissimmee UA	
Post Office, State, & ZIP Code: Kissimmee, FL	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	5-22-97
0970043-004-AC	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
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I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
A. K. Sharma
Director of Power Supply
Kissimmee Utility Auth.
1701 W. Carroll St.
Kissimmee, FL 34741

4a. Article Number
2 127 633 174

4b. Service Type

Registered Insured

Certified COD

Express Mail Return Receipt for Merchandise

7. Date of Delivery
3-1-96

5. Signature (Addressee)

6. Signature (Agent)
Catherine Mick

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714

DOMESTIC RETURN RECEIPT

P 265 659 125

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Sent to <i>MR. A.K. SHARMA, KUA</i>	
Street & Number <i>1701 WEST CARROLL STREET</i>	
Post Office, State, & ZIP Code <i>KISSIMMEE, FL 34741</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date <i>0970043004-AC 1/31/97</i> <i>PSD-FL-182</i>	

PS Form 3800 April 1995

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SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
A.K. Sharma
Director of Power Supply
Kissimmee Utility Auth.
1701 W. Carroll St.
Kissimmee, FL 34741

4a. Article Number
2 127 633 174

4b. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
3-1-96

5. Signature (Addressee)

6. Signature (Agent)
Catherine Mickel

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

P 265 659 125

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Sent to <i>MR. A.K. SHARMA, KUA</i>	
Street & Number <i>1701 WEST CARROLL STREET</i>	
Post Office, State, & ZIP Code <i>KISSIMMEE, FL 34741</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date <i>0970043-004-AC 1/3/97</i> <i>PSD-FL-182</i>	

PS Form 3800, April 1995

Fold at line over top of envelope to

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

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- Complete items 3, 4a, and 4b.
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I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. A.K. Sharma, Director
Kissimmee Utility Authority
1701 W. Canell St.
Kissimmee, FL
34741

4a. Article Number

P 265 659 159

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

7. Date of Delivery

2-10-97

5. Received By: (Print Name)

WHAVERLY N PADGETT

6. Signature: (Addressee or Agent)

X Whaverly N Padgett

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

P 339 251 158

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	A K Sharma
Street & Number	K U A
Post Office, State, & ZIP Code	Kissimmee, FL
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	9-30-96

PS Form 3800, April 1995

Fold at line over top of envelope to

SENDER

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
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I also wish to receive the following services (for an extra fee):

1. Addressee's Address
 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
 A.K. Sharma
 Kissimmee Utility Auth.
 1701 W. Carroll St.
 Kissimmee, FL 34741

4a. Article Number
 P 265 659 437

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
 8/18/97

5. Received By: (Print Name)
 MICHELE ERUST

6. Signature: (Addressee or Agent)
 X *Michele Erust*

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994 Domestic Return Receipt

is your RETURN ADDRESS completed on the reverse side.

Thank you for using Return Receipt Service.

P 265 659 437

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Serial	<i>A.K. Sharma</i>
Street & Number	<i>1701 W. Carroll St.</i>
Post Office, State, & ZIP Code	<i>Kissimmee, FL</i>
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	<i>0970043-003-AC 8-15-97</i> <i>PSO-FL-182</i>

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
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I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
 Mr. A. K. Sharma
 Director of Power
 Kissimmee Utility Auth.
 1701 West Canale St.
 Kissimmee, FL 34741

4a. Article Number
 P 339 251 158

4b. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
 10-2-96

5. Signature (Addressee)
[Signature]

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)
 J. G. ARCT

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

P 265 659 159

US Postal Service
Receipt for Certified Mail

No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Sent to <i>A. K. Sharma</i>	
Street & Number <i>KUA</i>	
Post Office, State, & ZIP Code <i>KISSIMMEE, FL</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	<i>2-6-97</i>
<i>PSD-FI-182</i>	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER: ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: <i>A.K. Sharma Director of Power Supply Kiskadee Utility Authority 1701 W. Carroll St. Kiskadee, MI 34741</i>		4a. Article Number <i>P 265 659 176</i>	
5. Received By: (Print Name) <i>J. Garcia</i>		4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
6. Signature: (Addressee or Agent) <i>X [Signature]</i>		7. Date of Delivery <i>2/24/97</i>	
		8. Addressee's Address (Only if requested and fee is paid)	

Thank you for using Return Receipt Service.

PS Form 3800, December 1994 Domestic Return Receipt

2 127 633 174



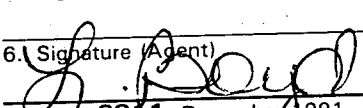
Receipt for Certified Mail

No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

PS Form 3800, March 1993

Sent to		<i>A.K. Sharma</i>	
Street and No.		<i>Kiskadee U.A.</i>	
P.O., State and ZIP Code		<i>Kiskadee, MI</i>	
Postage		\$	
Certified Fee			
Special Delivery Fee			
Restricted Delivery Fee			
Return Receipt Showing to Whom & Date Delivered			
Return Receipt Showing to Whom, Date, and Addressee's Address			
TOTAL Postage & Fees		\$	
Postmark or Date		<i>2-27-96</i>	
		<i>AC49-205703</i>	
		<i>PSD-FI-182</i>	

Is your RETURN ADDRESS completed on the reverse side?

SENDER: <ul style="list-style-type: none"> • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered. 		I also wish to receive the following services (for an extra fee): <ol style="list-style-type: none"> <input type="checkbox"/> Addressee's Address <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: Mr. A. K. Sharma, P.E. Director of Utilities P. O. Box 423219 Kissimmee, Florida 34742-3219		4a. Article Number P 872 562 694	
		4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
		7. Date of Delivery 9-23-94	
5. Signature (Addressee)		8. Addressee's Address (Only if requested and fee is paid)	
6. Signature (Agent) 			

Thank you for using Return Receipt Service.

P 872 562 694



Receipt for Certified Mail
 No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

PS Form 3800, JUNE 1991

Sent to Mr. A. K. Sharma, P.E.	
Street and No. P. O. Box 423219	
P.O. State and ZIP Code Kissimmee, FL 34742-3219	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date Mailed: 92194 AC 49-205703, PSD-FL-182	