

LAKE COGEN, LTD.
NCP Dade Power, LLC., General Partner

39001 Golden Gem Dr. • Umatilla, FL 32784
Tel (352) 669-3288 • Fax (352) 669-3188

July 23, 2007

RECEIVED

AUG 01 2007

BUREAU OF AIR REGULATION

✓ Mr. Tom Cascio
Bureau of Air Regulation
Florida Department of Environmental Protection
Mail Stop # 5505
2600 Blair Stone Road
Tallahassee, FL 32399
(850) 921-9526

RE: Lake Cogeneration; DEP File No. 0694801-007-AV; Response to the June 19, 2007 Request for Additional Information Concerning Title V Permit Renewal Application

Dear Mr. Cascio:

Pursuant to the Department's letter of June 19, 2007, and the several telephone calls you and I exchanged since that time, attached you will find a completed Compliance Assurance Monitoring (CAM) Plan for the Lake Cogeneration facility.

Please feel free to contact me at 775 850-2248 if there are any further questions/ concerns regarding the renewal of this facility's Title V Operating Permit.

For Lake Cogeneration L.P.

Sincerely,



Thomas Grace, CHMM
Manager, Environmental Services

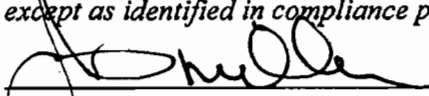
W/attachment

cc: J. Miller
J. Delgado
T. DeRocher
S. Osbourn @ Golder Assoc.

APPLICATION INFORMATION


Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: James Miller
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: Lake Cogeneration L.P. Street Address: 39001 Golden Gem Dr. City: Umatilla State: FL Zip Code: 32784
4. Application Responsible Official Telephone Numbers... Telephone: (352)669-3288 ext. Fax: (352)669-3188
5. Application Responsible Official Email Address: <u>jmillier@caithnessenergy.com</u>
6. Application Responsible Official Certification: <p><i>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</i></p> <p> Signature</p> <p><u>7/5/07</u> Date</p>

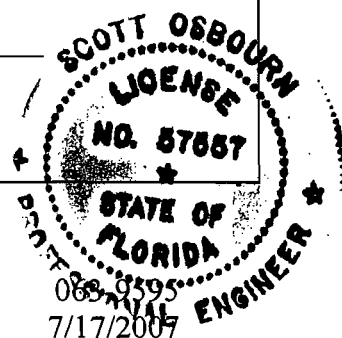
APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: Scott Osbourn Registration Number: 57557
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 5100 West Lemon St., Suite 114 City: Tampa State: FL Zip Code: 33609
3. Professional Engineer Telephone Numbers... Telephone: (813) 287-1717 ext. Fax: (813) 287-1716
4. Professional Engineer Email Address: SOsbourn@Golder.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> (1) <i>To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> (2) <i>To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> (3) <i>If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> (4) <i>If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input checked="" type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> (5) <i>If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i>  Signature _____ Date <u>2/17/07</u> (seal)

* Attach any exception to certification statement.

** Board of Professional Engineers Certificate of Authorization #00001670



Lake Cogeneration Ltd.

Facility ID No. 0694801

Emission Units –003 and –004

**Natural Gas and Oil-Fired Combustion Turbines
NOx Emissions Controlled by Water Injection**

Compliance Assurance Monitoring Plan

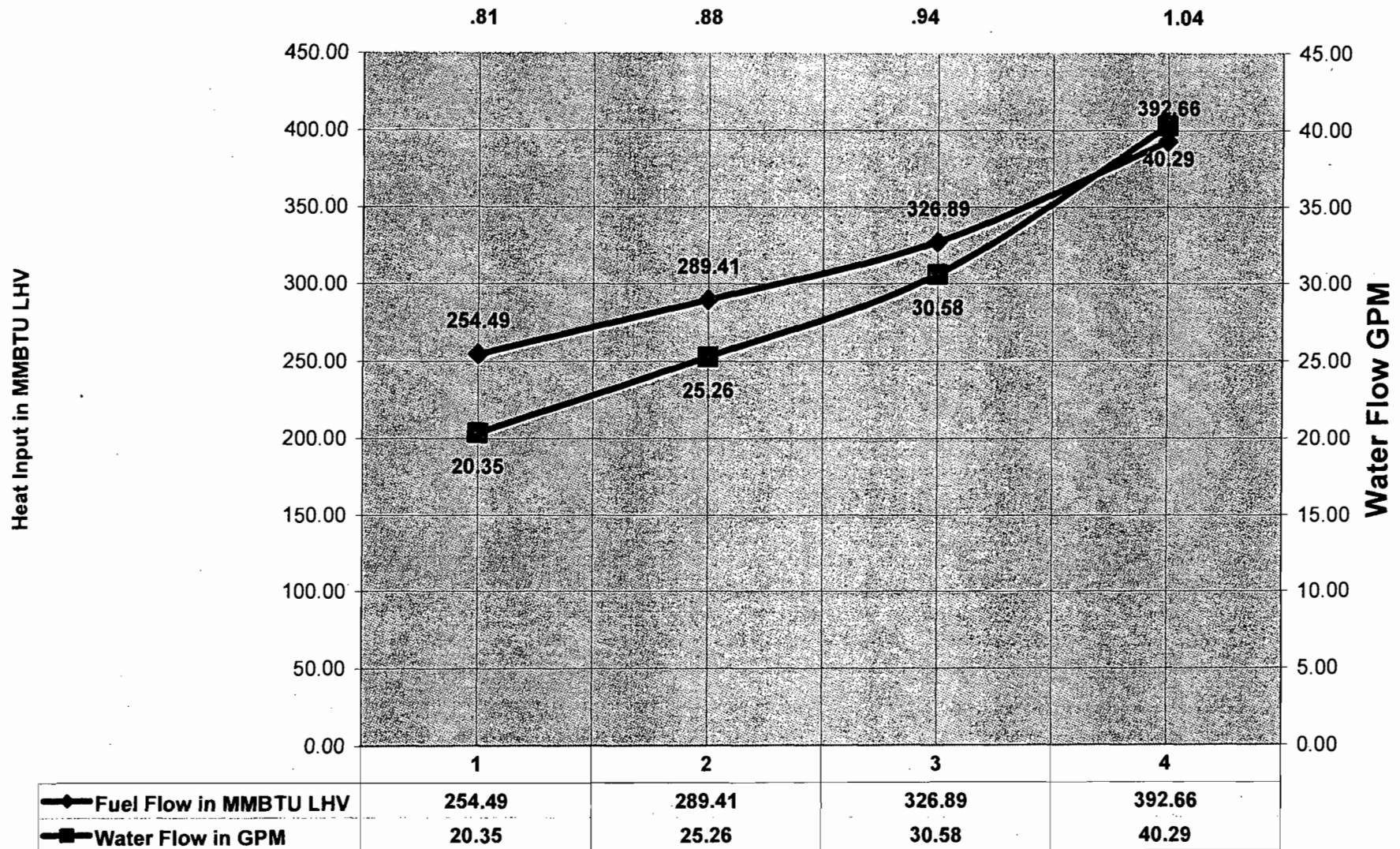
Table 1. Monitoring Approach

<u>Compliance Indicator</u>	
I. Indicator	Water to Fuel ratio.
II. Measurement Approach	Continuous Monitoring System (CMS) measuring water injection rate, fuel consumption and water to fuel ratio.
III. Indicator Range	An excursion is defined as any one hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance. The calculations incorporate the water injection curves shown in figures 1 – 4. If there is a problem with fuel or water flow that causes the actual ratio to fall below the target, a Distributed Control System (DCS) alarm notifies the Control Room Staff of the problem. The alarms allow the staff to investigate the cause and take corrective action prior to having a non-compliant situation.
IV. Performance Criteria	
A. Data Representativeness	The Woodward Netcon 5000 Combustion Turbine control system continuously monitors the fuel flow rate and sends a signal to the water flow control valve to adjust the flow to meet the target ratio. The target ratio is calculated by the Woodward Netcon 5000 based upon algorithms programmed into the system to account for varying conditions relevant to the proper control.
B. Verification of Operational Status	Annual compliance testing and reestablishment of the water to fuel ratio.
C. Monitoring Frequency	Continuous.

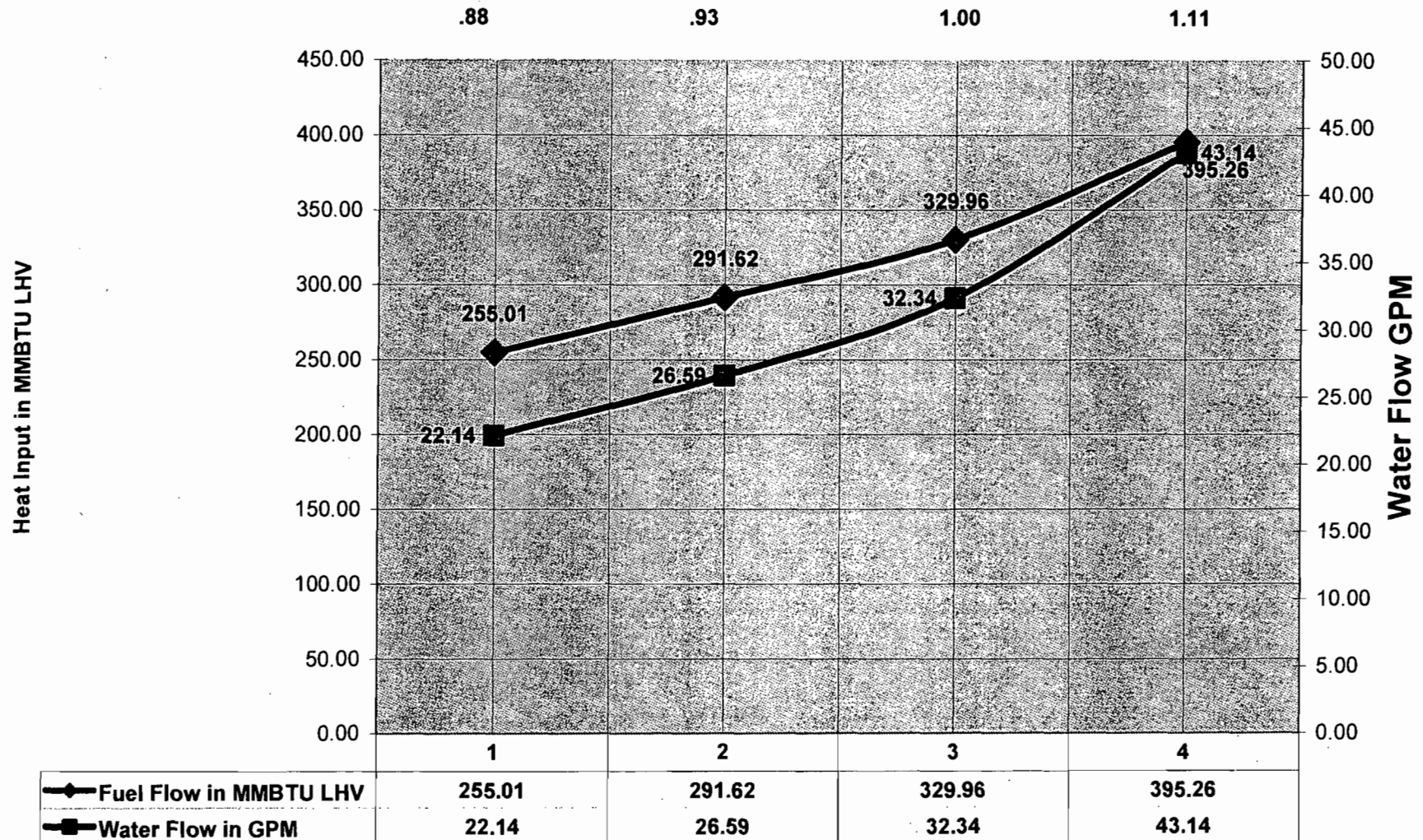
Table 1. Monitoring Approach (con't)

D. QA/QC Practices and Criteria	Operate and maintain the Woodward Netcon 5000 combustion turbine control system according to manufacturer's specifications. All metering equipment, including the transmitters meet or exceed the minimum regulatory requirement of 5% accuracy.
E. Data Collection Procedures	The Woodward Netcon 5000 combustion turbine control system continuously monitors fuel flow rate and sends a signal to the water flow control valve to adjust the flow to meet the target ratio. The target ratio is calculated based upon algorithms programmed into the system to account for varying conditions relevant to proper control. In addition, the DCS monitors the water to fuel ratio and provides additional monitoring/trim control for the Netcon
F. Averaging Period	One Hour.

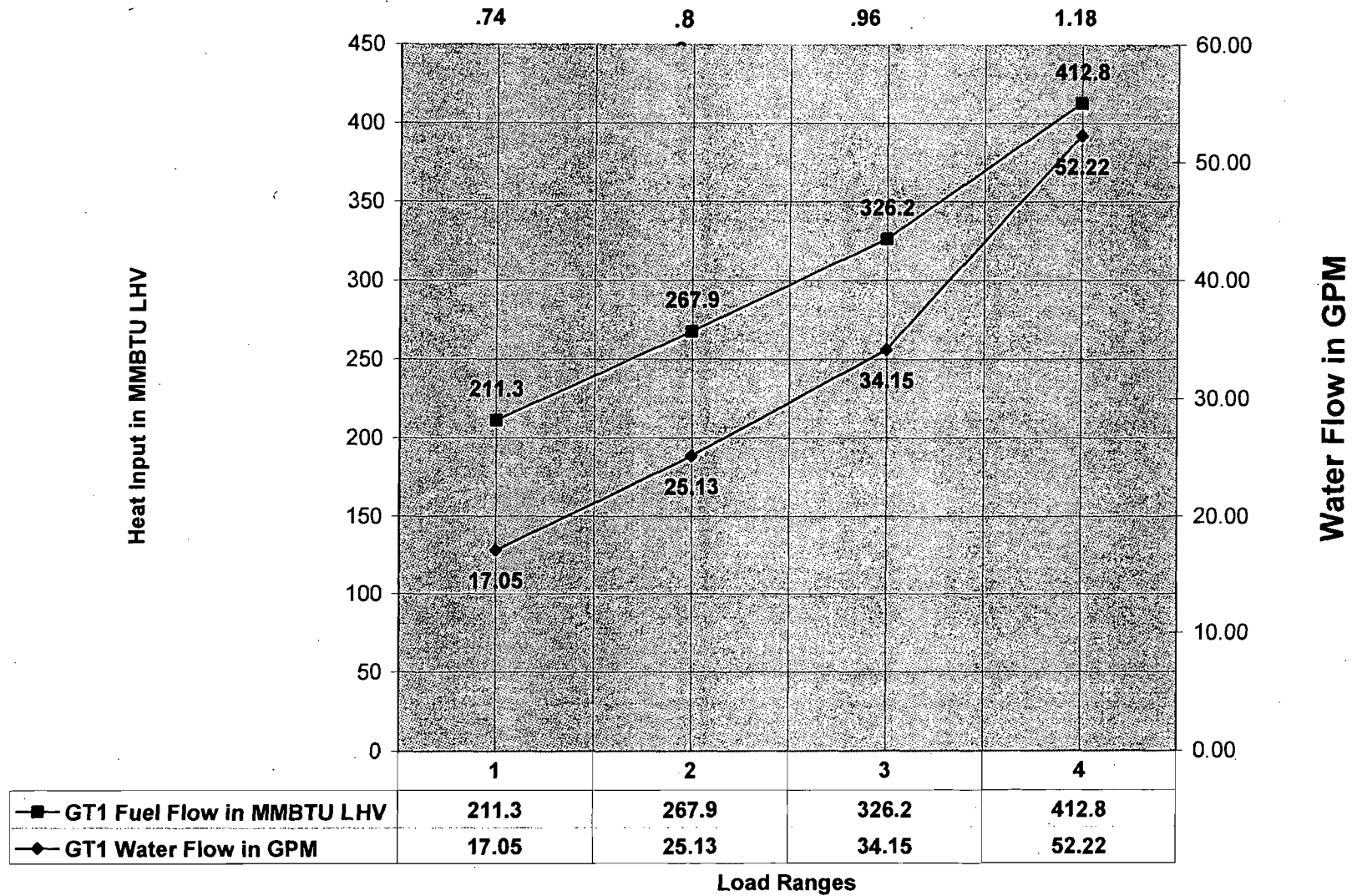
GT1 Water to Fuel Curve on Gas



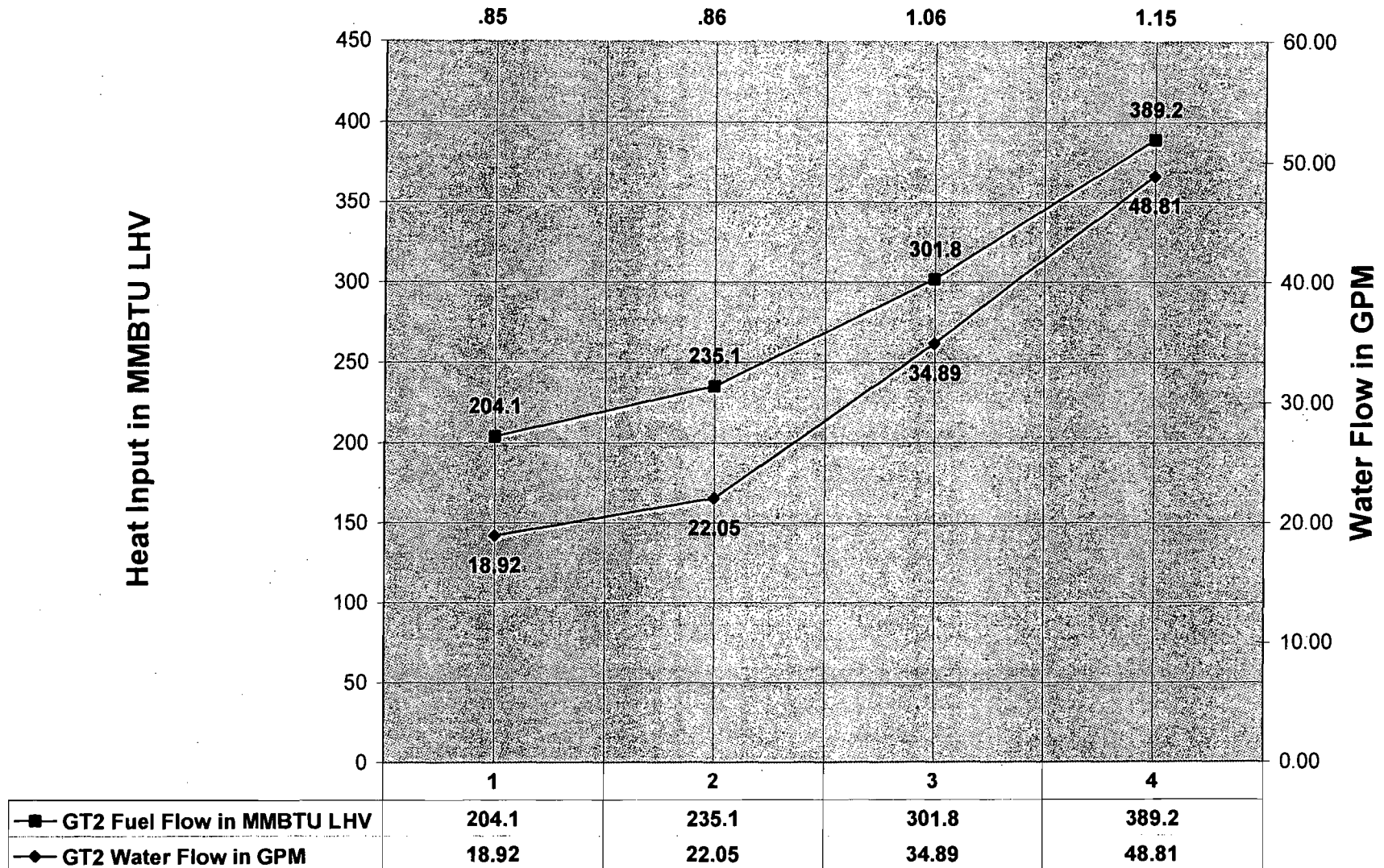
GT2 Water to Fuel Curve on Gas



GT 1 Water to Fuel Curve on Fuel Oil



GT 2 Water to Fuel Curve on Fuel Oil



Natural Gas Water to Fuel Curves

GT1	Fuel Flow in MMBTU LHV	254.49	289.41	326.89	392.66
	Water Flow in GPM	20.35	25.26	30.58	40.29
	W/F Ratio	0.81	0.88	0.94	1.04

GT2	Fuel Flow in MMBTU LHV	255.01	291.62	329.96	395.26
	Water Flow in GPM	22.14	26.59	32.34	43.14
	W/F Ratio	0.88	0.93	1.00	1.11

Fuel Oil Water to Fuel Curves

GT1	Fuel Flow in MMBTU LHV	211.3	267.9	326.2	412.8
	Water Flow in GPM	17.05	25.13	34.15	52.22
	W/F Ratio	0.74	0.86	0.96	1.16

PPH of fuel oil	11514.99	14599.46	17776.57	22495.91
PPH of Water	8521.09	12555.53	17065.5	26095.26
GPM to PPH Conversion	499.68	499.68	499.68	499.68

MMBTU to btu/lb
conversion 18350

GT2	Fuel Flow in MMBTU LHV	204.1	235.1	301.8	389.2
	Water Flow in GPM	18.92	22.05	34.89	48.81
	W/F Ratio	0.85	0.86	1.06	1.15

PPH of fuel oil	11122.62	12811.99	16446.87	21209.81
PPH of Water	9454.223	11018.31	17433.68	24391.28
GPM to PPH Conversion	499.68	499.68	499.68	499.68



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

June 19, 2007

Electronic Mail – Received Receipt Requested

jmiller@caithnessenergy.com

Mr. James Miller
Plant Manager
Lake Cogeneration L.P.
39001 Golden Gem Drive
Umatilla, Florida 32784

Re: Lake Cogeneration Facility
DEP File Number 0694801-007-AV, Title V Air Operation Permit Renewal Application
Request for Additional Information

Dear Mr. Miller:

The Department's Central District Office transferred the subject application to the Bureau of Air Regulation on April 19, 2007. Based on our review of the application, the following information is needed:

1. Compliance Assurance Monitoring (CAM) Plan. The attachment identified as "LC-EOI-L12" was not found in the application submitted. Please submit the CAM Plan for our review.

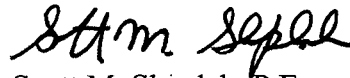
{Note: An exemption from CAM is available for emissions units demonstrating continuous compliance with a continuous emissions monitoring system (CEMs) under 40 CFR 64.2(b)(vi). You may elect to use the NO_x CEMs to demonstrate continuous compliance and be exempted from CAM. A condition to this effect would need to be added to the Title V permit.}

When we receive this information, we will continue the processing of your application. Rule 62-4.050(3), F.A.C., requires that all applications for a Department permit must be certified by a professional engineer (P.E.) registered in the state of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. The response to item 1. above requires a P.E. certification. Permit applicants are advised that Rule 62-213.420(1)(b), F.A.C., requires applicants to respond to requests for information within 90 days, unless the applicant has requested in writing, and has been granted, additional time within 90 days.

Re: Lake Cogeneration Facility
DEP File Number 0694801-007-AV, Title V Air Operation Permit Renewal Application
Request for Additional Information
Page 2 of 2

We are available to discuss the details of this request for additional information. If you have any questions, please contact Mr. Tom Cascio at 850/921-9526 or me at 850/921-9532.

Sincerely,



Scott M. Sheplak, P.E.
Air Permitting South Section
Bureau of Air Regulation
Mail Station #5505
2600 Blair Stone Road
Tallahassee, FL 32399
Scott.Sheplak@dep.state.fl.us

SMS/tbc

copy to: Thomas A. Grace, Lake Cogeneration L.P., tgrace@caithnessenergy.com
Scott Osbourn, P.E., Golder Associates, Inc., SOsbourn@golder.com
James Bradner, P.E., Central District Office, James.Bradner@dep.state.fl.us
Katy Forney, EPA Region 4, Forney.Kathleen@epa.gov

Friday, Barbara

To: jmiller@caithnessenergy.com; tgrace@caithnessenergy.com; sosbourn@golder.com; Bradner, James; Forney.Kathleen@epamail.epa.gov
Cc: Sheplak, Scott
Subject: Lake Cogeneration RAI - 0694801-007-AV/Title V Renewal Application
Attachments: JamesMiller0694801-007-AV - Lake CogenerationRAI.pdf

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

6/20/2007

Friday, Barbara

From: System Administrator
To: Bradner, James
Sent: Wednesday, June 20, 2007 9:47 AM
Subject: Delivered:Lake Cogeneration RAI - 0694801-007-AV/Title V Renewal Application

Your message

To: 'jmillier@caithnessenergy.com'; 'tgrace@caithnessenergy.com'; 'sosbourn@golder.com'; Bradner, James;
'Forney.Kathleen@epamail.epa.gov'
Cc: Sheplak, Scott
Subject: Lake Cogeneration RAI - 0694801-007-AV/Title V Renewal Application
Sent: 6/20/2007 9:47 AM

was delivered to the following recipient(s):

Bradner, James on 6/20/2007 9:47 AM

Friday, Barbara

From: Exchange Administrator
Sent: Wednesday, June 20, 2007 9:47 AM
To: Friday, Barbara
Subject: Delivery Status Notification (Relay)

Attachments: ATT782525.txt; Lake Cogeneration RAI - 0694801-007-AV/Title V Renewal Application



ATT782525.txt Lake Cogeneration
(380 B) RAI - 069480...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

jmilller@caithnessenergy.com
tgrace@caithnessenergy.com

Friday, Barbara

From: Mail Delivery System [MAILER-DAEMON@sophos.golder.com]
Sent: Wednesday, June 20, 2007 9:47 AM
To: Friday, Barbara
Subject: Successful Mail Delivery Report

Attachments: Delivery report; Message Headers



Delivery report.txt
(460 B)

Message
Headers.txt (2 KB)

This is the mail system at host sophos.golder.com.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<sosbourn@golder.com>: delivery via 127.0.0.1[127.0.0.1]:10025: 250 OK, sent
46792FBE_6625_111_1

Friday, Barbara

From: Mail Delivery System [MAILER-DAEMON@mseive02.rtp.epa.gov]
Sent: Wednesday, June 20, 2007 9:47 AM
To: Friday, Barbara
Subject: Successful Mail Delivery Report

Attachments: Delivery report; Message Headers



Delivery report.txt
(488 B)



Message
Headers.txt (2 KB)

This is the mail system at host mseive02.rtp.epa.gov.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<Forney.Kathleen@epamail.epa.gov>: delivery via 127.0.0.1[127.0.0.1]:10025: 250
OK, sent 46792FEB_21389_300_1

Friday, Barbara

From: Osbourn, Scott [Scott_Osbourn@golder.com]
To: undisclosed-recipients
Sent: Wednesday, June 20, 2007 10:56 AM
Subject: Read: Lake Cogeneration RAI - 0694801-007-AV/Title V Renewal Application

Your message

To: Scott_Osbourn@golder.com
Subject:

was read on 6/20/2007 10:56 AM.

Friday, Barbara

From: Thomas Grace [tgrace@caithnessenergy.com]
To: Friday, Barbara
Sent: Wednesday, June 20, 2007 11:00 AM
Subject: Read: Lake Cogeneration RAI - 0694801-007-AV/Title V Renewal Application

Your message

To: tgrace@caithnessenergy.com
Subject:

was read on 6/20/2007 11:00 AM.

Friday, Barbara

From: Bradner, James
To: Friday, Barbara
Sent: Wednesday, June 20, 2007 11:38 AM
Subject: Read: Lake Cogeneration RAI - 0694801-007-AV/Title V Renewal Application

Your message

To: 'jmillar@caithnessenergy.com'; 'tgrace@caithnessenergy.com'; 'sosbourn@golder.com'; Bradner, James;
'Forney.Kathleen@epamail.epa.gov'
Cc: Sheplak, Scott
Subject: Lake Cogeneration RAI - 0694801-007-AV/Title V Renewal Application
Sent: 6/20/2007 9:47 AM

was read on 6/20/2007 11:37 AM.

Friday, Barbara

From: Bradner, James
Sent: Wednesday, June 20, 2007 11:38 AM
To: Friday, Barbara
Subject: RE: Lake Cogeneration RAI - 0694801-007-AV/Title V Renewal Application

Received—thank you.

From: Friday, Barbara
Sent: Wednesday, June 20, 2007 9:47 AM
To: 'jmiller@caithnessenergy.com'; 'tgrace@caithnessenergy.com'; 'sosbourn@golder.com'; Bradner, James; 'Forney.Kathleen@epamail.epa.gov'
Cc: Sheplak, Scott
Subject: Lake Cogeneration RAI - 0694801-007-AV/Title V Renewal Application

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

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Thank you,

DEP, Bureau of Air Regulation

6/20/2007

Friday, Barbara

From: Forney.Kathleen@epamail.epa.gov
Sent: Monday, June 25, 2007 8:33 AM
To: Friday, Barbara
Subject: Re: Lake Cogeneration RAI - 0694801-007-AV/Title V Renewal Application

Attachments: JamesMiller0694801-007-AV - Lake CogenerationRAI.pdf



JamesMiller0694801
-007-AV - La...

Thanks.

Katy R. Forney
Air Permits Section
EPA - Region 4
61 Forsyth St., SW
Atlanta, GA 30024

Phone: 404-562-9130
Fax: 404-562-9019

"Friday,
Barbara"
<Barbara.Friday@
dep.state.fl.us>

06/20/2007 09:46
AM

To
<jmiller@caithnessenergy.com>,
<tgrace@caithnessenergy.com>,
<sosbourn@golder.com>, "Bradner,
James"
<James.Bradner@dep.state.fl.us>,
Kathleen Forney/R4/USEPA/US@EPA

cc

"Sheplak, Scott"
<Scott.Sheplak@dep.state.fl.us>
Subject

Lake Cogeneration RAI -
0694801-007-AV/Title V Renewal
Application

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

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Thank you,
DEP, Bureau of Air Regulation
(See attached file: JamesMiller0694801-007-AV - Lake
CogenerationRAI.pdf)

Friday, Barbara

From: Harvey, Mary
Sent: Tuesday, June 19, 2007 4:03 PM
To: 'Thomas A. Grace, Lake Cogeneration L.P.,'; 'Scott Osbourn, P.E., Golder Associates, Inc.,'; Bradner, James; 'Katy Forney, EPA Region 4,'; 'James Miller, Plant Manager.'
Cc: Adams, Patty; Gibson, Victoria; Arif, Syed
Subject: Ltr. - Lake Cogeneration Facility
Attachments: Request for Additional Information- 0694801-007-AV.pdf

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

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<http://www.adobe.com/products/acrobat/readstep.html>.

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Thank you,

DEP, Bureau of Air Regulation

6/25/2007