

### Department of Environmental Protection

### **Division of Air Resource Management**

### STATEMENT OF COMPLIANCE - TITLE V SOURCE

	Annual Requirement	☐ Transfer of Permit		Permanent Facility Shutdown
	REPOR	RTING PERIOD*		REPORT DEADLINE**
	January 1 <sup>st</sup> through De	ccember 31 <sup>st</sup> of 2015 (year)		March 1 <sup>st</sup>
peri	-	that were added, deleted, or chan		ect during the indicated reporting gh permit revision.
Facili	ty Owner/Company Name:	Energy Management Inc.	=	
Site N	ame: <u>Gainesville Renewable</u>	Energy Center Facility ID No.	57241/	0010131-006-AV County: Alachua
COME	PLIANCE STATEMENT (C	Check only one of the following	three opt	ions)
	applicable, the Acid Rair requirements associated w	Part, and there were no repo	ortable in vn of pro	he Title V Air Operation Permit and, if cidents of deviations from applicable cess, fuel burning or emission control ed above.
-	applicable, the Acid Rain applicable requirements as control equipment, or mon	Part; however, there were one sociated with malfunctions or b	or more r reakdown ing period	the Title V Air Operation Permit and, if reportable incidents of deviations from as of process, fuel burning or emission didentified above, which were reported mation is included:
	<ol> <li>Date of report previous</li> <li>Description of the inc</li> </ol>	usly submitted identifying the incident.	ident of de	eviation.
X	applicable, the Acid Rain reportable incidents of dev of process, fuel burning or	Part, EXCEPT those identifie iations from applicable requirem r emission control equipment, or	d in the pents associated monitori	the Title V Air Operation Permit and, if pages attached to this report and any stated with malfunctions or breakdowns ng systems during the reporting period item of noncompliance, the following

1. Emissions unit identification number.

information is included:

- 2. Specific permit condition number (note whether the permit condition has been added, deleted, or changed during certification period).
- 3. Description of the requirement of the permit condition.
- 4. Basis for the determination of noncompliance (for monitored parameters, indicate whether monitoring was continuous, i.e., recorded at least every 15 minutes, or intermittent).
- 5. Beginning and ending dates of periods of noncompliance.
- 6. Identification of the probable cause of noncompliance and description of corrective action or preventative measures implemented.
- 7. Dates of any reports previously submitted identifying this incident of noncompliance.

For each incident of deviation, as described in paragraph B. above, the following information is included:

- 1. Date of report previously submitted identifying the incident of deviation.
- 2. Description of the incident.

DEP Form No. 62-213.900(2) Effective: August 1, 2011

### **DEVIATION MONITORING REPORT - TITLE V SOURCE**

### RESPONSIBLE OFFICIAL CERTIFICATION

I, the undersigned, am a responsible official (Title V air permit application or responsible official notification form on file with the Department) of the Title V source for which this document is being submitted. With respect to all matters other than Acid Rain program requirements, I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.

Lend) ty	2/29/16	
(Signature of Title V Source Responsible Official)	(Date)	
Name: Leonard J. Fagan	Title: VP Engineering, Asset Manager	

### **DESIGNATED REPRESENTATIVE CERTIFICATION** (only applicable to Acid Rain source)

I, the undersigned, am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Lend) - yn	2/29/16
(Signature of Acid Rain Source Designated Representative)	(Date)
Name: Leonard J. Fagan	Title: VP Engineering, Asset Manager

{Note: Attachments, if required, are created by a responsible official or designated representative, as appropriate, and should consist of the information specified and any supporting records. Additional information may also be attached by a responsible official or designated representative when elaboration is required for clarity. This report is to be submitted to both the compliance authority (DEP district or local air program) and the U.S. Environmental Protection Agency (EPA) (U.S. EPA Region 4, Air and EPCRA Enforcement Branch, 61 Forsyth Street, Atlanta GA 30303).}

DEP Form No. 62-213.900(2)

Effective: August 1, 2011

### **Exception Detail**

	NOx (Ib/MMBtu)	Heat Input (MMBtu)	Opacity (%)
Emissions unit identification number	BFB1 EU-002	BFB1 EU-002	BFB1 EU-002
Specific permit condition number	B.10, B.11	B.10	B.10, h
Description of the requirement of the permit condition	24-Hour Rolling Average in excess of 0.070 lb/MMBtu	4-Hour Rolling Average in excess of 1,358 MMBtu	6-minute block average
Basis for the determination of noncompliance	Continuous Monitoring	Continuous Monitoring	Continuous Monitoring
Beginning and ending dates of periods of noncompliance Identification of the	01/12/2015 09:00 - 01/12/2015 14:59  False turbine condenser level indication, two warm restrate decreased catalyst	01/26/2015 20:00 01/26/2015 20:59 01/27/2015 02:00 01/27/2015 02:59 01/27/2015 02:00 01/28/2015 07:59 01/28/2015 06:00 01/28/2015 09:59 02/03/2015 06:00 01/29/2015 08:59 05/09/2015 11:00 05/09/2015 13:59 06/13/2015 23:00 06/13/2015 23:59 06/14/2015 06:00 07/14/2015 16:00 07/14/2015 10:59 Data	9 5/8/2015 0524 20.81% 5/8/2015 0530 17.87% 9 5/12/2015 1048 19.6% 6/8/2015 1300 10.23% 6/9/2015 1206 10.33% 8/28/2015 11:54 28.86% 9 8/28/2015 11:54 28.86% 9 Startup
noncompliance and description of corrective action or preventative measures implemented	injection temperature permissive, maximized ammonia injection rate.	July 31st	Malfunction – Corrected Process Malfunction – Corrected Process Malfunction – Corrected Process Startup Startup & Shutdown
Dates of any reports previously submitted identifying this incident of noncompliance	January 13 <sup>th</sup> , April 24 <sup>th</sup> , May 11 <sup>th</sup> , July 30 <sup>th</sup>	July 30 <sup>th</sup> October 29 <sup>th</sup>	July $30^{th}$ August $31^{st}$ , September $2^{nd}$ , September $30^{th}$ , October $29^{th}$ , November $2^{nd}$ February $18^{th}$ , $2016$

# Boiler NOx lb/MMBtu 24 Hour Rolling Exceedance Report

Gainesville Facility Name:

BFB1 Source: Parameter:

NOx\_RATE\_P60

Limit:

0.070

Gainesville, FL

Location:

Permit Condition B.10 & B.11, Continuous Monitoring. Reported 1/13, 4/24, 5/11 & 7/30.

Data in the Reporting Period: 1/1/2015 to 7/31/2015 11:59:59 PM

Corrective Action	Corrected Process Operation
Reason for Incident	Malfunction
EPA Category	Process Problems
Duration Emission Hours Reading	0.073
Duration   Emissic   Hours   Readin	9
End Date	01/12/2015 14:59
Start Date	01/12/2015 09:00
No.	

Total Duration in the Reporting Period = 6 Hours

Total Operating Time in the Reporting Period = 4463 Hours

# Boiler NOx Ib/mmBtu 30-Day Rolling Exceedance Report

Facility Name: Gainesville

BFB1 Source:

Location: Gainesville, FL

NOx\_RATE\_P60 Parameter:

0.070 Limit

Data in the Reporting Period: 8/1/2015 to 12/31/2015 11:59:59 PM

Duration Emission Hours Reading

Corrective Action

Reason for Incident

No Incidents found in this Reporting Period

**EPA Category** 

End Date

Start Date

nc. So.

Total Duration in the Reporting Period = 0 Hours

Total Operating Time in the Reporting Period = 435 Hours

From:

Ali Leaphart

Sent:

Tuesday, January 13, 2015 3:59 PM

To:

Marc.Lovallo@dep.state.fl.us; Woosley, Jerry (Jerry.Woosley@dep.state.fl.us)

Cc:

Russell Abel; lenfagan@emienergy.com

Subject:

GREC Event 1/12

Attachments:

GREC\_011115\_011215.pdf

Marc,

Please find attached the requested information we discussed earlier today. Control signal issues caused two unit trips and subsequent two warm startups. Proactive operational steps taken minimizing overall impact included decreasing catalyst injection temperature permissive and maximizing ammonia injection rate.

If you have any questions please let me know,

### Ali Leaphart | Plant Engineer

NAES Corporation
Gainesville Renewable Energy Center
11201 NW 13<sup>th</sup> Street - Gainesville, FL 32653
Office 386.315.8019
Cell 352.529.7522
Email ali.leaphart@grecbiomass.com

www.naes.com



From:

Lovallo, Marc < Marc.Lovallo@dep.state.fl.us >

Sent:

Monday, February 09, 2015 1:38 PM

To:

Ali Leaphart

Subject:

RE: GREC Startup / Event 1/12 Update

Hi Ali,

This is fine. We are still planning on talking with our Tallahassee folks (hopefully this week) to determine how to handle these excess emissions. I will keep you informed.

Marc

From: <u>Ali.Leaphart@grecbiomass.com</u> [mailto:Ali.Leaphart@grecbiomass.com]

Sent: Monday, February 09, 2015 1:33 PM

To: Lovallo, Marc

Subject: RE: GREC Startup / Event 1/12 Update

Marc,

I just wanted to follow up and confirm the additional detail below was satisfactory to your request. Please let me know if you need any further information.

Thank you,

### Ali Leaphart | Plant Engineer

NAES Corporation Gainesville Renewable Energy Center 11201 NW 13<sup>th</sup> Street - Gainesville, FL 32653 Office 386.315.8019 Cell 352.529.7522 Email ali.leaphart@grecbiomass.com

www.naes.com



From: Ali Leaphart

Sent: Friday, January 30, 2015 12:26 PM

To: 'Lovallo, Marc'; Woosley, Jerry; Kirts, Christopher; Read, David (<u>David.Read@dep.state.fl.us</u>)

Cc: Russell Abel; lenfagan@emienergy.com; Andrew Bass (abass@ectinc.com); David Dee (ddee@gbwlegal.com)

(ddee@gbwlegal.com)

**Subject:** RE: GREC Startup / Event 1/12 Update

Good Afternoon,

As we discussed, the events of January 11<sup>th</sup> and 12<sup>th</sup> were due to a false turbine condenser level indication that resulted in two unit trips and warm/hot starts. During this event, the boiler remained offline until all necessary troubleshooting was completed to ensure the signal was correct, and a unit startup would be environmentally successful.

It should be noted the corrective actions mutually agreed upon in Mr. Maher's July 18<sup>th</sup> email attachment were precisely executed by GREC. In addition to increasing the SCR ammonia injection flow rate to maximize NOx reduction for more than 13 hours, GREC also lowered the catalyst temperature permissive to 350° thereby injecting ammonia sooner to further minimize the event duration. The long-term corrective action was agreed to be resolved by submission of a permit revision to address these very situations. Prior to this event, GREC and the Department had agreed to convene on January 22<sup>nd</sup> to finalize permit application details, and this effort presently continues.

### Ali Leaphart | Plant Engineer

NAES Corporation Gainesville Renewable Energy Center 11201 NW 13<sup>th</sup> Street - Gainesville, FL 32653 Office 386.315.8019 Cell 352.529.7522 Email ali.leaphart@grecbiomass.com

www.naes.com

**From:** Lovallo, Marc [mailto:Marc.Lovallo@dep.state.fl.us]

Sent: Thursday, January 29, 2015 9:42 AM

To: Ali Leaphart; Woosley, Jerry; Kirts, Christopher

Subject: RE: GREC Startup

Hi Ali,

Any update on that more detailed malfunction report concerning the 10 hours of excess NOx emissions the plant had earlier this month?

Marc

From: Ali.Leaphart@grecbiomass.com [mailto:Ali.Leaphart@grecbiomass.com]

Sent: Tuesday, January 20, 2015 7:12 AM

To: Lovallo, Marc; Woosley, Jerry; Kirts, Christopher

**Cc:** Russell.Abel@grecbiomass.com; lenfagan@emienergy.com

Subject: GREC Startup

Good Morning,

We had fires in the boiler at 0054 this morning and will be at baseload operation this afternoon.

### Ali Leaphart | Plant Engineer

NAES Corporation
Gainesville Renewable Energy Center
11201 NW 13<sup>th</sup> Street - Gainesville, FL 32653
Office 386.315.8019
Cell 352.529.7522
Email ali.leaphart@grecbiomass.com

www.naes.com



From:

Lovallo, Marc < Marc.Lovallo@dep.state.fl.us>

Sent:

Thursday, April 30, 2015 4:08 PM

To:

Ali Leaphart

Subject:

RE: GREC Startup / Event 1/12 Update

Hi Ali,

I wanted to confirm with you that the excess NOx emissions that occurred at the GREC facility on Jan 11<sup>th</sup> and 12<sup>th</sup> was determined to be a violation of the Air permit. To address the matter, we asked that GREC submit an Air construction permit application that would include exclusions being allowed for excess emissions occurring from warm startups due to a malfunction. Tallahassee has received the application and is currently working on it. Our compliance team further discussed this and determined the application submittal would be a satisfactory resolution to the non-compliance. The case was closed without enforcement and no further action is warranted. Let me know if you have any questions.

Marc A. Lovallo Environmental Specialist Compliance Assurance Florida Department of Environmental Protection Phone: (904) 256-1566

Phone: (904) 256-1566 Fax: (904) 256-1590

marc.lovallo@dep.state.fl.us

From: Ali.Leaphart@grecbiomass.com [mailto:Ali.Leaphart@grecbiomass.com]

Sent: Monday, February 09, 2015 1:33 PM

To: Lovallo, Marc

Subject: RE: GREC Startup / Event 1/12 Update

Marc,

I just wanted to follow up and confirm the additional detail below was satisfactory to your request. Please let me know if you need any further information.

Thank you,

### Ali Leaphart | Plant Engineer

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Gainesville Renewable Energy Center
11201 NW 13<sup>th</sup> Street - Gainesville, FL 32653
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### Boiler Opacity 6 Minute SU/SD Exceedance Report

Gainesville Facility Name:

Opac Source:

Gainesville, FL Location:

Parameter:

OPACITY

27% Permit Condition B.10, h, Continuous Monitoring

Limit:

Reported 8/31, 9/2, 9/30, 10/29, 11/2

Data in the Reporting Period: 1/1/2015 to 12/31/2015 11:59:59 PM

Corrective Action	Corrected Process Operation
Reason for Incident	Startup/Shutdown
EPA Category	Startup/Shutdown
Emission Reading	37.78
Duration E Periods F	2
End Date	08/28/2015 11:59
Start Date	08/28/2015 11:48
No.	_

Total Duration in the Reporting Period = 2 Periods

Total Operating Time in the Reporting Period = 49367 Periods

From:

Ali Leaphart

Sent:

Thursday, February 18, 2016 7:52 AM

To:

'Jordan, Monique'

**Subject:** 

RE: RTC - Gainesville Renewable Energy Center - Facility ID 0010131 - Alachua County

Good Morning Monique,

I have received your email and appreciate your consideration.

Regards,

### Ali Leaphart | Plant Engineer

NAES Corporation Gainesville Renewable Energy Center 11201 NW 13<sup>th</sup> Street - Gainesville, FL 32653 Office 386.315.8019 Cell 352.529.7522 Email ali.leaphart@grecbiomass.com



From: Jordan, Monique [mailto:Monique.Jordan@dep.state.fl.us]

Sent: Thursday, February 18, 2016 7:47 AM

To: Ali Leaphart

Cc: Russell Abel; Lovallo, Marc; Clark, Vincent; Kirts, Christopher; Maher, Jim

Subject: RTC - Gainesville Renewable Energy Center - Facility ID 0010131 - Alachua County

Please see the attached **Compliance Letter** for the subject facility.

Please note the following:

- The attached file can be opened by Adobe Reader, that can be downloaded from http://get.adobe.com/reader/
- PLEASE ACKNOWLEDGE THE RECEIPT OF THIS EMAIL, so we can be sure that you received it.

If you have additional questions, please contact Marc Lovallo at Marc.Lovallo@dep.state.fl.us.

Thank you.

### Monique Jordan

Florida Department of Environmental Protection Northeast District 8800 Baymeadows Way West, Suite 100

From:

Ali Leaphart

Sent:

Monday, November 02, 2015 2:27 PM

To:

'Lovallo, Marc'

Cc:

Russell Abel; lenfagan@emienergy.com; cwasdin@emienergy.com

Subject:

RE: CAO - GREC - Facility ID No.: 0010131 - Alachua County

### Marc,

In response to the Compliance Assistance Offer I received on October 28<sup>th</sup>, please find our previously committed corrective actions as per the September 30<sup>th</sup> email correspondence, including recent updates and findings:

- 1. The clogged stack drain has been cleared of rust debris.
- 2. Similar rust debris and ash discovered in the ID fan inlet has been removed.
- 3. Weekly fan start sequence has proven all opacity values are in compliance and will continue.
- 4. Re-inspection of the baghouse to the stack on October 9<sup>th</sup> was clear, and inspections shall continue as needed to ensure compliance.
- 5. In addition to the COMS, Method 9 certified personnel witness the startups and validate the opacity values.

### Sincerely,

### Ali Leaphart | Plant Engineer

NAES Corporation Gainesville Renewable Energy Center 11201 NW 13<sup>th</sup> Street - Gainesville, FL 32653 Office 386,315,8019 Cell 352,529,7522

Email ali.leaphart@grecbiomass.com

www.naes.com

From: Lovallo, Marc [mailto:Marc.Lovallo@dep.state.fl.us]

Sent: Wednesday, October 28, 2015 4:41 PM

To: Ali Leaphart

Subject: FW: CAO - GREC - Facility ID No.: 0010131 - Alachua County

Hi Ali,

Here is the compliance assistance letter. It was not sent to you like it was supposed to be. Our mistake.

Marc

From: Jordan, Monique

Sent: Tuesday, October 13, 2015 4:03 PM

To: russell.abel@grecbiomass.com

Cc: russell.abel@grecbiomass.com; Lovallo, Marc; Kirts, Christopher; Clark, Vincent; Maher, Jim; Webber, Heather;

Fitzsimmons, Michael

Subject: CAO - GREC - Facility ID No.: 0010131 - Alachua County

Please see the attached Compliance Assistance Offer Letter for the subject facility.

Please note the following:

- The attached file can be opened by Adobe Reader, that can be downloaded from <a href="http://get.adobe.com/reader/">http://get.adobe.com/reader/</a>
- PLEASE ACKNOWLEDGE THE RECEIPT OF THIS EMAIL, so we can be sure that you received it.

If you have additional questions, please contact Marc Lovallo at Marc.Lovallo@dep.state.fl.us.

Thank you.

### Monique Jordan

Florida Department of Environmental Protection Northeast District 8800 Baymeadows Way West, Suite 100 Jacksonville, Florida 32256

	_	_	
Γ_			-

From:

Ali Leaphart

Sent:

Wednesday, September 30, 2015 8:49 AM

To:

'Kirts, Christopher'

Cc:

Lovallo, Marc; Read, David; Fitzsimmons, Michael; Maher, Jim; Russell Abel;

cwasdin@emienergy.com; lenfagan@emienergy.com

**Subject:** 

RE: GREC Opacity

**Attachments:** 

DUCT INSPECTION 9282015.pdf

### Good Morning Chris,

Since the facility certified the CEMS on November 18<sup>th</sup>, 2013, we have not experienced any opacity exceedances until August 28<sup>th</sup>, 2015. To present, we have had 18 cold and 14 warm startups of the boiler. As we discussed, the events of August 28<sup>th</sup> in the absence of a visual confirmation originally led us to believe that with five baghouse compartments isolated and increased velocity through the remaining 15 compartments, minimal ash accumulations could have been disturbed. We shutdown the process and inspected all compartments, bags, leak detectors and outlet plenums. Finding nothing amiss and placing all 20 compartments in service, our second startup was successful.

When the impromptu startup call from GRU dispatch was received September 19<sup>th</sup>, this was the prime opportunity to perform a visual opacity reading to help determine the true root cause. Immediately following each of the fan start sequences, a reddish-brown plume was observed with diminishing intensity. Again we shutdown the process to perform visual inspections as a six-minute opacity value of 15.91% was observed. All 20 compartments were in service at time of start and the visual inspection was conducted identically to the prior incident. There was no change to the condition or functionality of the equipment and systems as before. The one common difference of these two startups is the extended time offline and substantial rainfall events. It should also be noted in retrospect, that on the May 8<sup>th</sup> cold startup after a 7-day dispatch reserve shutdown and subsequent 14-day planned maintenance outage, we experienced a single period value of 17.87%. This further validates the correlation between offline duration relative to increased opacity.

Upon visual inspection of the baghouse outlet plenums, downstream ductwork and the stack proper, we discovered the stack drain was clogged with rust debris and similar debris and ash in the ID fan inlet – see attached photos. Post-inspection we started fans and experienced no opacity issues with a maximum value of 11.42%. Preparations are being made this week to vacuum out the minimal accumulations in the ductwork.

Our proposed solution is modifying the fan startup sequence and duration such that the initial velocity and vibration that may potentially dislodge any material is minimized. Material would be allowed to settle at the stack base to be removed at the next available opportunity. In addition, GREC will run the fans every week only as long as needed such that all future startup events will be compliant. We also plan to re-inspect all ductwork from the baghouse to the stack at the next three week interval.

### Regards,

### Ali Leaphart | Plant Engineer

NAES Corporation Gamesville Renewable Energy Center 11201 NW 13 \*\* Street - Gamesville, FL 32653 Office 386-315-8019 Cell 352-529-7522

Email <u>ali.leaphart@grecbiomass.com</u> <u>www.naes.com</u>



From: Kirts, Christopher [mailto:Christopher.Kirts@dep.state.fl.us]

Sent: Friday, September 25, 2015 9:49 AM

To: Ali Leaphart

Cc: Lovallo, Marc; Read, David; Fitzsimmons, Michael; Maher, Jim

Subject: GREC Opacity

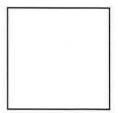
Thank you for meeting with us yesterday. We were glad to see all of the efforts the facility is undertaking to reduce potential odorus events.

In relational to the recent opacity exceedances: How many times has the facility gone through a startup without an exceedance? Wasn't this most recent exceedance, the first opacity issue that you have had? What was really different with this startup? Was there a more prolonged downtime? Can rain waters accumulate in the exhaust duct work? You folks said that you think that it is possible that the duct work after the bag house has experienced some internal rusting. If you find this, please take pictures.

When you have experienced these issues, what sequence of events did you implement and what were the results?

Thank You

Air Compliance Section, Northeast District email: <u>Christopher.Kirts@dep.state.fl.us</u> 904-256-1553 8800 Baymeadows Way West, Suite 100 Jacksonville Florida, 32256-7590



From:

Ali Leaphart

Sent:

Wednesday, September 02, 2015 1:56 PM

To:

Marc.Lovallo@dep.state.fl.us

Cc:

Russell Abel; lenfagan@emienergy.com

Subject:

**RE: GREC Status** 

### Marc,

Upon further inspection, all baghouse equipment is intact and functional. During the initial startup on the 28th, five of the baghouse compartments were isolated causing higher flow rates to the remaining compartments. We identified the correlation and initiated shutdown, opened the dampers and proceeded to an acceptable, second start. Our determination is the higher velocities and eddy currents may have dislodged fine particulate.

The purpose of our cold startup was to warm up the sand bed and the boiler to preserve the structural integrity and prevent corrosion by draining the boiler while hot, steaming out any residual moisture, and placing a nitrogen blanket on for extended lay-up.

If you have any questions, please give me a call.

### Ali Leaphart | Plant Engineer

NAES Corporation Gainesville Renewable Energy Center 11201 NW 13<sup>th</sup> Street - Gainesville, FL 32653 Office 386.315.8019 Cell 352.529.7522

Email ali.leaphart@grecbiomass.com

www.naes.com

From: Lovallo, Marc [mailto:Marc.Lovallo@dep.state.fl.us]

Sent: Monday, August 31, 2015 1:51 PM

**To:** Ali Leaphart

Cc: Russell Abel; <a href="mailto:lenfagan@emienergy.com">lenfagan@emienergy.com</a>

Subject: RE: GREC Status

Thanks Ali. Let me know when you have the results of the investigation. Also, could you please provide the explanation as to why the boiler had started up again? I apologize, I didn't write it down when we spoke on the phone.

### **Thanks**

### Marc

From: Ali.Leaphart@grecbiomass.com [mailto:Ali.Leaphart@grecbiomass.com]

Sent: Monday, August 31, 2015 12:05 PM

To: Lovallo, Marc

Cc: Russell.Abel@grecbiomass.com; lenfagan@emienergy.com

Subject: GREC Status

### Marc,

Last Friday the 28<sup>th</sup> during a cold startup, we experienced two opacity period peaks (attached) and immediately shutdown and investigated. The following start was below limit, and we are entering the boiler for visual inspection as temperature allows.

As we discussed aside from the required, annual stack test in November, we may be offline for an unknown duration. I will keep you informed of any changes to plan.

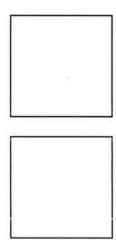
Respectfully,

### Ali Leaphart | Plant Engineer

NAES Corporation Gainesville Renewable Energy Center 11201 NW 13<sup>th</sup> Street - Gainesville, FL 32653 Office 386.315.8019 Cell 352.529.7522

Email ali.leaphart@grecbiomass.com





### Boiler Heat Input 4 Hour Rolling Exceedance Report

Gainesville Facility Name:

BFB1 Source: HTIP\_P60

Parameter:

1,358.00 Permit Condition B.10, Continuous Monitoring Limit:

Gainesville, FL

Location:

Data in the Reporting Period: 1/1/2015 to 7/31/2015 11:59:59 PM

Corrective Action	TV Permit Modification								
Reason for Incident	Load Ramp								
EPA Category	Other Known Causes								
Duration Emission Hours Reading	1361.61	1369.17	1387.55	1387.42	1359.42	1412.03	1361.06	1373.05	1375.07
Duration Hours	-	4	က	9	က	က	-	8	5
End Date	01/26/2015 20:59	01/27/2015 07:59	01/28/2015 09:59	01/29/2015 08:59	02/03/2015 08:59	05/09/2015 13:59	06/13/2015 23:59	06/14/2015 07:59	07/14/2015 20:59
Start Date	01/26/2015 20:00	2 01/27/2015 04:00	3 01/28/2015 07:00	4 01/29/2015 06:00	5 02/03/2015 06:00	6 05/09/2015 11:00	06/13/2015 23:00	8 06/14/2015 05:00	9 07/14/2015 16:00
S G		2	9	4	S	9		80	6

Total Duration in the Reporting Period = 26 Hours

Total Operating Time in the Reporting Period = 4465 Hours

### **CEMS Semi-Annual Downtime Report**

Facility Name: GREC BFB1 EU-002

Location: Gainesville, FL

Data in the Reporting Period: 1/1/2015 to 12/31/2015 11:59:59 PM

Corrective Action	Performed Corrective Maintenance - SOV115	ncomplete Period - Shutdown & Startup	ncomplete Period - Shutdown & Startup	Incomplete Period - Shutdown	Incomplete Period - Startup	ncomplete Period - Startup	ncomplete Period - Shutdown	Performed Corrective Maintenance - Regulator	Missing Data - Flagging/Unrecoverable	Missing Data - Time Adjustment	Missing Data - Time Adjustment	Quarterly Gas Audit	In Maintenance - Flow	Quarterly Filter Audit	ncomplete Period - Shutdown & Startup	Data Restoration	Incomplete Period - Shutdown	ncomplete Period - Startup	Incomplete Period - Shutdown & Startup	ncomplete Period - Shutdown & Startup	Incomplete Period - Shutdown	ncomplete Period - Startup	Incomplete Period - Shutdown	Incomplete Period - PA fan on for cooling	ncomplete Period - PA fan off	Incomplete Period - PA fan on for cooling	ncomplete Period - PA fan off	ncomplete Period - Startup	Incomplete Period - Shutdown	ncomplete Period - Startup	Quarterly Filter Audit	ncomplete Period - Shutdown	Incomplete Period - Startup
EPA Downtime Category	Monitor Equipment Malfunction	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes		Monitor Equipment Malfunction	Other Known Causes	Other Known Causes	Other Known Causes	Calibration/QA	Calibration/QA		Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes		Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Calibration/QA	Other Known Causes	Other Known Causes
Reason	Monitor Equipment Malfunction	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Monitor Equipment Malfunction	Other Known Causes	Other Known Causes	Other Known Causes	Calibration/QA	Calibration/QA	Calibration/QA	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes		Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Calibration/QA	Other Known Causes	Other Known Causes
Duration Period/Hour	4	2	2	-	-	1	1	-	9	10	-	9	1	3	1	-	-	1	2	2	1	-	-	-	-	1	-	-	-	1	2	-	-
End Date	01/07/2015 08:59	01/08/2015 22:29	01/11/2015 21:23	01/12/2015 00:47	01/12/2015 06:17	01/12/2015 07:17	01/16/2015 06:47	02/05/2015 05:59	03/04/2015 07:47	03/04/2015 09:41	03/04/2015 09:59	03/11/2015 13:59	03/18/2015 11:59	03/18/2015 12:29	04/01/2015 18:11	04/07/2015 10:11	04/16/2015 18:11	04/16/2015 18:41	04/16/2015 19:11	04/17/2015 17:53	04/17/2015 18:11	04/17/2015 18:35	04/17/2015 20:11	04/23/2015 16:17	04/23/2015 22:59	04/24/2015 10:41	04/24/2015 12:05	05/08/2015 05:29	05/08/2015 12:47	05/08/2015 12:59	05/11/2015 11:35	06/06/2015 16:11	06/06/2015 18:29
Start Date	01/07/2015 05:00	01/08/2015 22:18	01/11/2015 21:12	01/12/2015 00:42	01/12/2015 06:12	01/12/2015 07:12	01/16/2015 06:42	02/05/2015 05:00	03/04/2015 07:12	03/04/2015 08:42	03/04/2015 09:00	03/11/2015 11:00	03/18/2015 11:00	03/18/2015 12:12	04/01/2015 18:06	04/07/2015 10:06	04/16/2015 18:06	04/16/2015 18:36	04/16/2015 19:00	04/17/2015 17:42	04/17/2015 18:06	04/17/2015 18:30	04/17/2015 20:06	04/23/2015 16:12	04/23/2015 22:54	04/24/2015 10:36	04/24/2015 12:00	05/08/2015 05:24	05/08/2015 12:42	05/08/2015 12:54	05/11/2015 11:24	06/06/2015 16:06	06/06/2015 18:24
Channel	NOX, SO2, CO	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	SO2	Opacity	Opacity	NOX, SO2, CO	NOX, SO2, CO	FLOW	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity

Corrective Action	Incomplete Period - Shutdown	Incomplete Period - Startup	Incomplete Period - Shutdown	Incomplete Period - Startup	Incomplete Period - Shutdown & Startup	Incomplete Period - Shutdown & Startup	Quarterly Gas Audit	Quarterly Gas Audit	Incomplete Period - Power Loss	Incomplete Period - Shutdown	Incomplete Period - Dispatch Reserve Shutdown	Incomplete Period - Startup	Incomplete Period - Dispatch Reserve Shutdown	Incomplete Period - Startup	Incomplete Period - Shutdown	Incomplete Period - Startup	Incomplete Period - Shutdown	Incomplete Period - Startup	Incomplete Period - Dispatch Reserve Shutdown	Incomplete Period - Equipment Testing	Incomplete Period - Equipment Testing	Incomplete Period - Equipment Testing	Incomplete Period - Startup	Quarterly Gas Audit (Q3)	Incomplete Period - Shutdown	Incomplete Period - Equipment Testing										
EPA Downtime Category	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Calibration/QA	Calibration/QA	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Calibration/QA	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes					
son	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Calibration/QA	Calibration/QA	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Calibration/QA	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes	Other Known Causes					
Duration Period/Hour		+	-	1	2	2	2	+	ı,	2	2	e	1	2	-	1	-	-	-	-	-	-	1	-	2	2	1	-	-	-	2	-	-	-	-	c
End Date	06/06/2015 23:41	06/07/2015 08:41	06/07/2015 09:59	06/07/2015 10:23	06/07/2015 13:35	06/07/2015 16:29	06/11/2015 12:59	06/11/2015 14:59	06/14/2015 11:29	06/15/2015 11:59	06/22/2015 12:41	06/22/2015 13:29	06/23/2015 10:59	06/23/2015 11:53	08/07/2015 19:05	08/07/2015 20:35	08/28/2015 12:47	08/28/2015 19:05	09/19/2015 11:11	09/19/2015 11:23	09/19/2015 12:23	09/20/2015 05:05	09/20/2015 05:29	09/21/2015 13:11	10/15/2015 10:23	10/22/2015 13:41	11/02/2015 14:05	11/03/2015 18:59	11/06/2015 11:59	11/12/2015 05:29	12/04/2015 13:35	12/11/2015 13:59	12/11/2015 14:11	12/16/2015 14:17	12/16/2015 14:47	400410045 45.47
Start Date	06/06/2015 23:36	06/07/2015 08:36	06/07/2015 09:54	06/07/2015 10:18	06/07/2015 13:24	06/07/2015 16:18	06/11/2015 11:00	06/11/2015 14:00	06/14/2015 11:00	06/15/2015 11:48	06/22/2015 12:30	06/22/2015 13:12	06/23/2015 10:54	06/23/2015 11:42	08/07/2015 19:00	08/07/2015 20:30	08/28/2015 12:42	08/28/2015 19:00	09/19/2015 11:06	09/19/2015 11:18	09/19/2015 12:18	09/20/2015 05:00	09/20/2015 05:24	09/21/2015 13:06	10/15/2015 10:12	10/22/2015 13:30	11/02/2015 14:00	11/03/2015 18:54	11/06/2015 11:00	11/12/2015 05:24	12/04/2015 13:24	12/11/2015 13:54	12/11/2015 14:06	12/16/2015 14:12	12/16/2015 14:42	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Channel	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	NOX, SO2, CO (	NOX, SO2, CO (	Opacity	Opacity	Opacity (	Opacity	Opacity		Opacity	Opacity		Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	Opacity	NOX, SO2, CO	Opacity	Opacity			Opacity	Opacity	

### 2015 Annual NOx Exclusions – BFB1 EU-002 January 1<sup>st</sup> – December 31<sup>st</sup>

		<u>Hourly</u>	<u>Description</u>	Corrective Action						
1/8 2300 – 1/9 0000	2	2300 - 0.229 0000 - 0.158	False turbine condenser level indication, trip	Warm restart, return to normal operation.  Permit Condition; Appendix CEMS 19.a.						
1/12 0700 – 0800	2	0700 - 0.265 0800 - 0.136	False turbine condenser level indication, two trips, offline troubleshooting	Two warm restarts, decreased catalyst injection temperature permissive, maximized ammonia injection rate for 13 hours, return to normal operation.  Permit Condition;						
				Appendix CEMS 19.a.						
1/20 0400 - 1900	16	0400 - 0.091 0500 - 0.11 0600 - 0.11 0700 - 0.114 0800 - 0.13 0900 - 0.136 1000 - 0.2 1100 - 0.151 1200 - 0.14 1300 - 0.134 1400 - 0.133 1500 - 0.128 1600 - 0.133 1700 - 0.109 1800 - 0.086 1900 - 0.075	Cold Startup after Planned Maintenance Outage	Permit Condition: B.13.a, c.						
5/8 1200 – 5/9 0000	13	0.095 0.093 0.096 0.107 0.113 0.114 0.116 0.174 0.243 0.259 0.255 0.168 0.121	Cold Startup after Planned Maintenance Outage	Permit Condition: B.13.a, c.						

### 2015 Annual NOx Exclusions – BFB1 EU-002 January 1<sup>st</sup> – December 31<sup>st</sup>

		<u>Hourly</u>	<u>Description</u>	Corrective Action
4/16 1900 - 2000	2	0.168 0.131	Steam turbine control valve wiring fault	Repaired in-situ, warm start.  Permit Condition;
4/17 1900 - 2000	2	0.217 0.149	Steam turbine control valve wiring fault	Appendix CEMS 19.a.  Additional repair/replacement in progress when dispatched offline on
				reserve standby/availability.  Permit Condition; Appendix CEMS 19.a.
6/6 1900 – 2000	2	0.168 0.163	Condenser Level Fluctuation/Trip	Repair/replacement and warm startup in progress when dispatched offline.  Permit Condition;
6/7 1300 - 2200	10	0.203 0.148 0.116 0.111 0.117 0.111 0.12 0.119 0.111 0.101	Cold Startup after Dispatched Offline	Appendix CEMS 19.a.  Permit Condition: B.13.a, c.
8/7 2000 – 2059	1	0.178	Unit Trip – Lightning Strike	Warm Re-Start Permit Condition: Appendix CEMS 19.a
8/10 1500 - 2259	8	1500 -0.110 1600 - 0.114 1700 - 0.122 1800 - 0.105 1900 - 0.149 2000 - 0.123 2100 - 0.130 2200 - 0.103	Cold Startup	Permit Condition: B.13.a

### 2015 Annual NOx Exclusions – BFB1 EU-002 January 1<sup>st</sup> – December 31<sup>st</sup>

		<u>Hourly</u>	<u>Description</u>	Corrective Action
9/19 2200 -	17	2200 - 0.15	Cold Startup	Permit Condition:
9/20 1459		2300 - 0.237		B.13.a
		0000 - 0.254		
		0100 - 0.202		
		0200 - 0.174		
		0300 - 0.159		
		0400 - 0.112		
		0500 - 0.192		
		0600 - 0.138		
		0700 - 0.102		
		0800 - 0.081		
		0900 - 0.093		
		1000 - 0.093		
		1100 - 0.095		
		1200 - 0.107		
		1300 - 0.102		
		1400 - 0.094		
11/4 0100 -	18	0100 - 0.090	Cold Startup	Permit Condition:
1900		0200 – 0.089		B.13.a
		0300 – 0.094		
		0400 – 0.104		
		0500 - 0.110		
		0600 – 0.117	ľ	
		0700 – 0.119		
		0800 – 0.179		
		0900 – 0.165		
		1000 – 0.107		
		1100 – 0.099		
		1200 - 0.100		
		1300 - 0.108		-
		1400 – 0.112		
		1500 -0.113		
		1600 - 0.117		
		1800 - 0.094		
		1900 - 0.101		
<u>Total</u>	93			