

April 28, 2017

Via Electronic Mail

Marc A. Lovallo
Environmental Specialist
Compliance Assurance, Northeast District
Florida Dept of Environmental Protection
7777 Baymeadows Way W, Suite 100
Jacksonville, FL 32256

**Re: Gainesville Renewable Energy Center, LLC (GREC)
Air Permit No. 0010131-006-AV (PSD-FL-411)
ORIS: 57241
Q1 2017 Excess Emission Reports**

Dear Mr. Lovallo:

Below please find a summary of our 1st Quarter 2017 excess emission reports:

<u>Report</u>	<u>Duration/Comment</u>
NOx lb/mmBtu 30-day Summary	Compliant
CO lb/mmBtu 30-day Summary	Compliant
NOX & CO lb/mmBtu Excess Emissions	59 hours
<i>NOX & CO lb/mmBtu Excess Emissions 2016 Q4 Revised</i>	<i>27 hours</i>
SO2 lb/mmBtu 24-hr Summary	Compliant
Opacity 6 minute Summary	Compliant
NOX, SO2 TPY 12-Month Rolling	Compliant
NOX lb/MW hr 30 day Summary	Compliant
SO2 lb/MW hr 30 day Summary	Compliant
Steam Flow Production Summary	Compliant

The detailed reports are attached for your review. If you have any questions or require additional information, please contact the Plant Engineer, Ali Leaphart, at (386) 315-8019 or me at (617) 904-3100, ext. 122. Please note: RATA & Stack Compliance Testing was performed week of March 20th.

I certify, based on information and belief formed after reasonable inquiry, the statements and information in this report are true, accurate, and complete.

Sincerely,



Leonard J. Fagan
Vice President of Engineering
GREC Asset Manager

LJF/cw
enclosures

Continuous Emission Monitor Quarterly Report Summary
Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: NOx lb/MMBtu 30 Day EPA Report

Emission Limitation: 0.070

Analyzer Make/Model: CAI 600

Analyzer Serial Number: Y08012

Reporting Period Dates: From 01/01/2017 to 03/31/2017 23:59:59

Company Name: Gainesville

Address: 11201 NW 13th Street
 Gainesville, FL 32653

Process Unit Description: Biomass Boiler

Date of Last CEMS Certification or Audit: 11/6/2014

Total Source Operating Time in Reporting Period: 929 Hours

CMS Performance Summary

1. CEMS downtime in reporting period due to:	Duration	% Unavailable ¹
1. Monitor Equipment Malfunctions	0	0.00 %
2. Non-Monitor CEMS Equipment Malfunctions	0	0.00 %
3. Calibration/QA	1	0.11 %
4. Other Known Causes	1	0.11 %
5. Unknown Causes	0	0.00 %
2. Total CEMS Downtime	2	0.22 % ²

% Unavailable = CEMS Downtime during Source Operating Time/Source Operating Time x 100

Emission Data Summary

1. Duration of excess emissions in reporting period due to:	Duration	% Excess Emissions ¹
1. Startup/Shutdown	0	0.00 %
2. Control Equipment Problems	0	0.00 %
3. Process Problems	0	0.00 %
4. Other Known Causes	0	0.00 %
5. Unknown Causes	0	0.00 %
6. Unit Offline	0	0.00 %
2. Total duration of excess emissions.....	0	0.00 % ²

% Excess Emissions = Total Duration of Excess Emissions/Source Operating Time x 100

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

Continuous Emission Monitor Quarterly Report Summary
Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: CO lb/MMBtu 30 Day EPA Report

Emission Limitation: 0.080

Analyzer Make/Model: CAI 601

Analyzer Serial Number: Z01007

Reporting Period Dates: From 01/01/2017 to 03/31/2017 23:59:59

Company Name: Gainesville

Address: 11201 NW 13th Street
 Gainesville, FL 32653

Process Unit Description: Biomass Boiler

Date of Last CEMS Certification or Audit: 11/6/2014

Total Source Operating Time in Reporting Period: 929 Hours

CMS Performance Summary

1. CEMS downtime in reporting period due to:	Duration	% Unavailable ¹
1. Monitor Equipment Malfunctions	0	0.00 %
2. Non-Monitor CEMS Equipment Malfunctions	0	0.00 %
3. Calibration/QA	1	0.11 %
4. Other Known Causes	1	0.11 %
5. Unknown Causes	0	0.00 %
2. Total CEMS Downtime	2	0.22 % ²

% Unavailable = CEMS Downtime during Source Operating Time/Source Operating Time x 100

Emission Data Summary

1. Duration of excess emissions in reporting period due to:	Duration	% Excess Emissions ¹
1. Startup/Shutdown	0	0.00 %
2. Control Equipment Problems	0	0.00 %
3. Process Problems	0	0.00 %
4. Other Known Causes	0	0.00 %
5. Unknown Causes	0	0.00 %
6. Unit Offline	0	0.00 %
2. Total duration of excess emissions.....	0	0.00 % ²

% Excess Emissions = Total Duration of Excess Emissions/Source Operating Time x 100

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

NOx & CO lb/MMBtu Excess Emissions – 1st Quarter, 2017

Startup/Shutdown Exclusions:

		CO Hourly	NOx Hourly	Description	Corrective Action
1/7	18	0700 – 1.039 0800 – 0.694 0900 – 1.038 1000 – 0.985 1100 – 0.816 1200 – 0.672 1300 – 0.588 1400 – 0.477 1500 – 0.577 1600 – 0.463 1700 – 1800 – 1900 – 2000 – 2100 – 2200 – 2300 0000 –	0.108 1 Common Hour 0.231 0.141 0.131 0.128 0.124 0.105 0.101 0.089	Cold Startup	Permit Condition: B.13.a
1/8		10	9		
1/21	2	0500 – 0.183 0700 – 0.968		Shutdown	Permit Condition: B.13.c
2/7	19	1800 - 1.919 1900 – 1.308 2000 – 1.167 2100 – 1.039 2200 – 0.923 2300 – 0.797 0000 – 0.686 0100 – 0.514 0200 – 0.526 0300 – 0.489	0.094 8 Common Hours 0.096 0.091 0.095 0.102 0.106	Cold Startup	Permit Condition: B.13.a
2/8					

NOx & CO lb/MMBtu Excess Emissions – 1st Quarter, 2017

		0400 – 0.455 0500 – 0.275 0600 - 0700 - 0800 - 0900 - 1000 - 1100 - 1200 –	0.118 0.213 0.175 0.092 0.124 0.087 0.101 0.094 0.105				
2/16	1	1800 – 0.503 12	15		Shutdown	Permit Condition: B.13.c	
3/14	19	0900 – 1.426 1000 – 1.126 1100 – 1.013 1200 – 0.888 1300 – 0.804 1400 – 0.832 1500 – 0.809 1600 – 0.745 1700 - 0.679 1800 – 0.635 1900 – 0.649 2000 – 0.671 2100 – 0.71 2200 – 0.654 2300 – 0.097 0000 – 0.245 0100 – 0.305 0200 – 0300 –	0.082 0.086 0.084 0.076 0.077 0.088 0.096 0.102 0.112 0.177 0.28 0.232 0.219 0.16 0.106		Cold Startup	Permit Condition: B.13.a	
3/15		17	15	0.082 13 Common Hours			
Total		59					

NOx & CO lb/MMBtu Excess Emissions – 1st Quarter, 2017

Malfunction:

	<u>CO Hourly</u>	<u>NOX Hourly</u>	<u>Description</u>	<u>Corrective Action</u>
Total				

Total Quarterly Excluded Hours = 59

Total 12-month Rolling Excluded Hours, Ending 1st Quarter = 126

NOx & CO lb/MMBtu Excess Emissions – 4th Quarter, 2016
(Revised 4/10/17)

Startup/Shutdown Exclusions:

	<u>CO Hourly</u>	<u>NOx Hourly</u>	<u>Description</u>	<u>Corrective Action</u>
11/12	1800 – 1.716 1900 – 1.615 2000 – 1.41 2100 – 1.289 2200 – 1.206 2300 – 1.057 0000 – 0.929 0100 – 0.877 0200 – 0.661 0300 – 0.434 0400 – 0.265 0500 – 0.227 0600 – 0.168 0700 – 0.458 0800 – 0.467 0900 – 0.461 1000 – 0.408 1100 – 0.19 1200 -	0.088 11 Common Hours 0.079 0.086 0.094 0.101 0.26 0.283 0.293 0.299 0.301 0.287 0.269	Cold Startup	Permit Condition: B.13.a
11/13				
11/17	18 1300 – 0.234 1400 – 0.143 1500 – 0.149 1600 – 0.16 1700 – 0.211 1800 – 0.184 1900 – 6	12 0.131 6 Common Hours 0.16 0.153 0.147 0.134 0.128 0.092 7	Warm Startup	Permit Condition: B.13.b
11/20	1 2100 – 0.826		Shutdown	Permit Condition: B.13.c

NOx & CO lb/MMBtu Excess Emissions – 4th Quarter, 2016

(Revised 4/10/17)

Total	27			
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Malfunction:

	<u>CO Hourly</u>	<u>NOX Hourly</u>	<u>Description</u>	<u>Corrective Action</u>
Total				

Total Quarterly Excluded Hours = 27

Total 12-month Rolling Excluded Hours, Ending 4th Quarter = 101

Continuous Emission Monitor Quarterly Report Summary
Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: SO2 lb/MMBtu 24 Hour EPA Report

Emission Limitation: 0.029

Analyzer Make/Model: CAI 600

Analyzer Serial Number: Z01006

Reporting Period Dates: From 01/01/2017 to 03/31/2017 23:59:59

Company Name: Gainesville

Address: 11201 NW 13th Street
 Gainesville, FL 32653

Process Unit Description: Biomass Boiler

Date of Last CEMS Certification or Audit: 11/6/2014

Total Source Operating Time in Reporting Period: 929 Hours

CMS Performance Summary

1. CEMS downtime in reporting period due to:	Duration	% Unavailable ¹
1. Monitor Equipment Malfunctions	0	0.00 %
2. Non-Monitor CEMS Equipment Malfunctions	0	0.00 %
3. Calibration/QA	1	0.11 %
4. Other Known Causes	1	0.11 %
5. Unknown Causes	0	0.00 %
2. Total CEMS Downtime	2	0.22 % ²

% Unavailable = CEMS Downtime during Source Operating Time/Source Operating Time x 100

Emission Data Summary

1. Duration of excess emissions in reporting period due to:	Duration	% Excess Emissions ¹
1. Startup/Shutdown	0	0.00 %
2. Control Equipment Problems	0	0.00 %
3. Process Problems	0	0.00 %
4. Other Known Causes	0	0.00 %
5. Unknown Causes	0	0.00 %
6. Unit Offline	0	0.00 %
2. Total duration of excess emissions.....	0	0.00 % ²

% Excess Emissions = Total Duration of Excess Emissions/Source Operating Time x 100

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

Continuous Emission Monitor Quarterly Report Summary
Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: Opacity 6 Minute >10/20 EPA Report

Emission Limitation: 10.00

Analyzer Make/Model: DURAG D-R 290

Analyzer Serial Number: 1220055

Reporting Period Dates: From 01/01/2017 to 03/31/2017 23:59:59

Company Name: Gainesville

Address: 11201 NW 13th Street
 Gainesville, FL 32653

Process Unit Description: Boiler Opacity

Date of Last CEMS Certification or Audit: 11/6/2014

Total Source Operating Periods: 9300 Periods

CMS Performance Summary

1. CEMS downtime in reporting period due to:	Duration	% Unavailable ¹
1. Monitor Equipment Malfunctions	0	0.00 %
2. Non-Monitor CEMS Equipment Malfunctions	0	0.00 %
3. Calibration/QA	4	0.04 %
4. Other Known Causes	19	0.20 %
5. Unknown Causes	0	0.00 %
2. Total CEMS Downtime	23	0.25 % ²

% Unavailable = CEMS Downtime during Source Operating Periods/Source Operating Periods x 100

Emission Data Summary

1. Duration of excess emissions in reporting period due to:	Duration	% Excess Emissions ¹
1. Startup/Shutdown	0	0.00 %
2. Control Equipment Problems	0	0.00 %
3. Process Problems	0	0.00 %
4. Other Known Causes	0	0.00 %
5. Unknown Causes	0	0.00 %
6. Unit Offline	0	0.00 %
2. Total duration of excess emissions.....	0	0.00 % ²

% Excess Emissions = Total Excess Emission Periods/Source Operating Periods x 100

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating periods or the total CMS downtime is 5 percent or greater of the total operating periods, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

Continuous Emission Monitor Quarterly Report Summary
Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: Opacity 6 Minute >20/27 EPA Report

Emission Limitation: 20.00

Analyzer Make/Model: DURAG D-R 290

Analyzer Serial Number: 1220055

Reporting Period Dates: From 01/01/2017 to 03/31/2017 23:59:59

Company Name: Gainesville

Address: 11201 NW 13th Street
 Gainesville, FL 32653

Process Unit Description: Boiler Opacity

Date of Last CEMS Certification or Audit: 11/6/2014

Total Source Operating Periods: 9300 Periods

CMS Performance Summary

1. CEMS downtime in reporting period due to:	Duration	% Unavailable ¹
1. Monitor Equipment Malfunctions	0	0.00 %
2. Non-Monitor CEMS Equipment Malfunctions	0	0.00 %
3. Calibration/QA	4	0.04 %
4. Other Known Causes	19	0.20 %
5. Unknown Causes	0	0.00 %
2. Total CEMS Downtime	23	0.25 % ²

% Unavailable = CEMS Downtime during Source Operating Periods/Source Operating Periods x 100

Emission Data Summary

1. Duration of excess emissions in reporting period due to:	Duration	% Excess Emissions ¹
1. Startup/Shutdown	0	0.00 %
2. Control Equipment Problems	0	0.00 %
3. Process Problems	0	0.00 %
4. Other Known Causes	0	0.00 %
5. Unknown Causes	0	0.00 %
6. Unit Offline	0	0.00 %
2. Total duration of excess emissions.....	0	0.00 % ²

% Excess Emissions = Total Excess Emission Periods/Source Operating Periods x 100

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating periods or the total CMS downtime is 5 percent or greater of the total operating periods, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

Boiler Opacity 6 Minute Downtime Report

Facility Name: Gainesville
Source: Opac
Parameter: OPACITY

Location: Gainesville, FL

Data in the Reporting Period: 01/01/2017 00:00 to 03/31/2017 23:59

Incid. No.	Start Date	End Date	Duration Periods	Reason	EPA Downtime Category	Corrective Action
1	01/04/2017 13:36	01/04/2017 13:41	1	Other Known Causes	Other Known Causes	Incomplete Period - Equipment Testing
2	01/04/2017 13:48	01/04/2017 13:53	1	Other Known Causes	Other Known Causes	Incomplete Period - Equipment Testing
3	01/13/2017 03:42	01/13/2017 03:47	1	Other Known Causes	Other Known Causes	Missing Data
4	01/21/2017 07:42	01/21/2017 07:47	1	Other Known Causes	Other Known Causes	Incomplete Period - Shutdown
5	02/09/2017 13:12	02/09/2017 13:17	1	Other Known Causes	Other Known Causes	Incomplete Period - Equipment Testing
6	02/09/2017 13:30	02/09/2017 13:35	1	Other Known Causes	Other Known Causes	Incomplete Period - Equipment Testing
7	02/09/2017 18:00	02/09/2017 18:05	1	Other Known Causes	Other Known Causes	Incomplete Period - Startup
8	02/16/2017 18:54	02/16/2017 18:59	1	Other Known Causes	Other Known Causes	Incomplete Period - Shutdown
9	03/14/2017 08:48	03/14/2017 08:53	1	Other Known Causes	Other Known Causes	Incomplete Period - Startup
10	03/15/2017 14:42	03/15/2017 15:05	4	Calibration/QA	Calibration/QA	Quarterly Gas Audit
11	03/17/2017 18:48	03/17/2017 19:47	10	Other Known Causes	Other Known Causes	Missing Data

Total Downtime in the Reporting Period = 23 Periods

Total Operating Time in the Reporting Period = 9300 Periods

Data Availability for this Reporting Period = 99.75 %

Monthly & 12-Month Rolling Report

Company: Gainesville Renewable Energy Center, LLC

11201 NW 13th Street

Gainesville, FL 32653

Source: EU-002

Data Group: All Data Groups

Report Name: Summary: Monthly and 12-Month Rolling
Totals

Start of Report: 4/1/2016 00:00

End of Report: 3/31/2017 23:59

	NOx Tons/month	SO2 Tons/month	NOx 12-Month Rolling	SO2 12-Month Rolling
04/01/2016 00:00	0.00	0.00	88.29	0.14
05/01/2016 00:00	1.11	0.00	69.95	0.14
06/01/2016 00:00	0.00	0.00	44.74	0.00
07/01/2016 00:00	0.00	0.00	17.45	0.00
08/01/2016 00:00	0.00	0.00	11.23	0.00
09/01/2016 00:00	1.22	0.00	10.91	0.00
10/01/2016 00:00	9.34	0.00	20.25	0.00
11/01/2016 00:00	7.00	0.00	20.19	0.00
12/01/2016 00:00	0.00	0.00	20.19	0.00
1/01/2017 00:00	12.70	0.00	32.89	0.00
2/01/2017 00:00	5.8	0.00	38.69	0.00
3/01/2017 00:00	15.61	0.00	52.81	0.00

Continuous Emission Monitor Quarterly Report Summary
Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: NOx lb/MW/hr 30 Day EPA Report

Emission Limitation: 1.00

Analyzer Make/Model: CAI 600

Analyzer Serial Number: Y08012

Reporting Period Dates: From 01/01/2017 to 03/31/2017 23:59:59

Company Name: Gainesville

Address: 11201 NW 13th Street
 Gainesville, FL 32653

Process Unit Description: Biomass Boiler

Date of Last CEMS Certification or Audit: 11/6/2014

Total Source Operating Time in Reporting Period: 929 Hours

CMS Performance Summary

1. CEMS downtime in reporting period due to:	Duration	% Unavailable ¹
1. Monitor Equipment Malfunctions	1	0.11 %
2. Non-Monitor CEMS Equipment Malfunctions	0	0.00 %
3. Calibration/QA	5	0.54 %
4. Other Known Causes	6	0.65 %
5. Unknown Causes	0	0.00 %
2. Total CEMS Downtime	12	1.29 % ²

% Unavailable = CEMS Downtime during Source Operating Time/Source Operating Time x 100

Emission Data Summary

1. Duration of excess emissions in reporting period due to:	Duration	% Excess Emissions ¹
1. Startup/Shutdown	0	0.00 %
2. Control Equipment Problems	0	0.00 %
3. Process Problems	0	0.00 %
4. Other Known Causes	0	0.00 %
5. Unknown Causes	0	0.00 %
6. Unit Offline	0	0.00 %
2. Total duration of excess emissions.....	0	0.00 % ²

% Excess Emissions = Total Duration of Excess Emissions/Source Operating Time x 100

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

Continuous Emission Monitor Quarterly Report Summary
Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: SO2 lb/MWhr 30 Day EPA Report

Emission Limitation: 1.40

Analyzer Make/Model: CAI 600

Analyzer Serial Number: Z01006

Reporting Period Dates: From 01/01/2017 to 03/31/2017 23:59:59

Company Name: Gainesville

Address: 11201 NW 13th Street
 Gainesville, FL 32653

Process Unit Description: Biomass Boiler

Date of Last CEMS Certification or Audit: 11/6/2014

Total Source Operating Time in Reporting Period: 929 Hours

CMS Performance Summary

1. CEMS downtime in reporting period due to:	Duration	% Unavailable ¹
1. Monitor Equipment Malfunctions	1	0.11 %
2. Non-Monitor CEMS Equipment Malfunctions	0	0.00 %
3. Calibration/QA	5	0.54 %
4. Other Known Causes	6	0.65 %
5. Unknown Causes	0	0.00 %
2. Total CEMS Downtime	12	1.29 % ²

% Unavailable = CEMS Downtime during Source Operating Time/Source Operating Time x 100

Emission Data Summary

1. Duration of excess emissions in reporting period due to:	Duration	% Excess Emissions ¹
1. Startup/Shutdown	0	0.00 %
2. Control Equipment Problems	0	0.00 %
3. Process Problems	0	0.00 %
4. Other Known Causes	0	0.00 %
5. Unknown Causes	0	0.00 %
6. Unit Offline	0	0.00 %
2. Total duration of excess emissions.....	0	0.00 % ²

% Excess Emissions = Total Duration of Excess Emissions/Source Operating Time x 100

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

Steam Flow 4-HR Rolling Exceedance Report

Facility Name: Gainesville **Location:** Gainesville, FL
Source: BFB1
Parameter: STEAM **Limit:** 930

Data in the Reporting Period: 01/01/2017 00:00 to 03/31/2017 23:59

Inc. No.	Start Date	End Date	Duration	Average	EPA Category	Reason for Incident	Corrective Action
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No Incidents in the Reporting Period

Total Duration in the Reporting Period = 0 Hours

Total Operating Time in the Reporting Period = 929 Hours