42-045-00317

MarcusHook
ENERGY CENTER

COPY

Marcus Hook Energy Center
100 Green Street
Marcus Hook, PA 19061-3403

Federal Express Tracking No. 7727 3548 5230

RECEIVED
JUL 19 2018
Air Protection Division

July 18, 2018

Mr. Kevin McLemore
Pennsylvania Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

RE: Marcus Hook 750 Cogeneration Facility
PADEP Title V Permit No. 23-00089
NSPS - Excess Emissions and Monitoring Performance Report
2nd Quarter 2018

Dear Mr. McLemore:

In accordance with the provisions of 40 CFR 60.7, New Source Performance Standards (NSPS), please find the attached Excess Emissions and Monitoring Systems Performance Report for the 2nd quarter 2018.

The Marcus Hook 750 Cogeneration Facility houses three combined cycle combustion turbines, each with a fired Heat Recovery Steam Generator. The three combustion turbines are subject to 40 CFR 60 Subpart GG, Standards of Performance for Stationary Gas Turbines. The Subpart GG Reports are enclosed.

If you have any comments or questions regarding this report please contact me at (610) 364-2470 or via email Jennifer.eisenmann@ge.com.

Sincerely,

Jennifer Eisenmann

Jennifer Eisenmann
EHS Manager, ADR
Marcus Hook Energy Center

Enclosures: 1

CC: Diana Esher, Chief
Air Protection Division
U.S. EPA, Region III
1650 Arch Street
Philadelphia, PA 19103
Federal Express Tracking No. 7727 3554 0834

Babcock & Wilcox Power Generation Group NetDAHS©

United States Environmental Protection Agency
Region 3
Air Protection Division

Summary Report
Gaseous and Opacity Excess Emission and Monitoring System Performance
Version 43.0

Reporting dates 4/1/2018 00:00 through 6/30/2018 23:59
Generated: 7/2/2018 12:45

Pollutant: NOx Corrected 15% O2
Emission Limit: 104 ppmvdc 4-hr avg

Company Name: Marcus Hook Energy Center
Address: Marcus Hook
Model: TECO 42iLS and Servomex 1440
Date of Latest CEMS Certification or Audit: 5/18/2018

Unit Description: CT1 - GE Frame 7FA Gas Fired Combustion Turbine

Total source operating time in reporting period: **1632 hours**
Total Reported Time: **2184 hours**

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	1.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	0.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	0.0
e. UnKnown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	1.0
3. Excess emission duration (%).....	0.00%	3a. CEMS downtime (% of operating time).....	0.06%
		3b. CEMS downtime (% of reported time).....	0.05%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):

[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% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: Jennifer Eisenmann

Signature: Jennifer Eisenmann

Title: EHS Manager, ADR

Date: 7/18/18

Babcock & Wilcox Power Generation Group NetDAHS©

United States Environmental Protection Agency
Region 3
Air Protection Division

Summary Report
Gaseous and Opacity Excess Emission and Monitoring System Performance
Version 43.0

Reporting dates 4/1/2018 00:00 through 6/30/2018 23:59
Generated: 7/2/2018 12:45

Pollutant: NOx Corrected 15% O2
Emission Limit: 104 ppmvdc 4-hr avg

Company Name: Marcus Hook Energy Center
Address: Marcus Hook
Model: TECO 42iLS and Servomex 1440
Date of Latest CEMS Certification or Audit: 5/22/2018

Unit Description: CT2 - GE Frame 7FA Gas Fired Combustion Turbine

Total source operating time in reporting period: **1734 hours**
Total Reported Time: **2184 hours**

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	0.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	0.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	0.0
e. UnKnown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	0.0
3. Excess emission duration (%).....	0.00%	3a. CEMS downtime (% of operating time).....	0.00%
		3b. CEMS downtime (% of reported time).....	0.00%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):

[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% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: Jennifer Eisenmann
Signature: Jennifer Eisenmann
Title: EHS Manager, ADR
Date: 7/18/18

Babcock & Wilcox Power Generation Group NetDAHS©

United States Environmental Protection Agency
Region 3
Air Protection Division

Summary Report
Gaseous and Opacity Excess Emission and Monitoring System Performance
Version 43.0

Reporting dates 4/1/2018 00:00 through 6/30/2018 23:59
Generated: 7/2/2018 12:45

Pollutant: NOx Corrected 15% O2
Emission Limit: 104 ppmvdc 4-hr avg

Company Name: Marcus Hook Energy Center
Address: Marcus Hook
Model: TECO 42iLS and Servomex 1440
Date of Latest CEMS Certification or Audit: 5/23/2018

Unit Description: CT3 - GE Frame 7FA Gas Fired Combustion Turbine

Total source operating time in reporting period: **1706 hours**
Total Reported Time: **2184 hours**

Emission Data Summary (note 1)		CEMS Downtime Summary (note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	0.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	0.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	0.0
e. UnKnown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	0.0
3. Excess emission duration (%).....	0.00%	3a. CEMS downtime (% of operating time).....	0.00%
		3b. CEMS downtime (% of reported time).....	0.00%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):

[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% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: Jennifer Eisenmann
Signature: Jennifer Eisenmann
Title: EHS Manager, ADR
Date: 7/18/18

Babcock & Wilcox Power Generation Group NetDAHS©

Episode List Report
Version 62.0
Marcus Hook Energy Center
Marcus Hook
Marcus Hook, PA 19061
from 4/1/2018 00:00 to 6/30/2018 23:59
Generated: 7/2/2018 12:45
Types:

Pollutant: NOxC4HR_1A Episode: Unit 1A Subpart GG Exceedance

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Pollutant: NOxC4HR_1B Episode: Unit 1B Subpart GG Exceedance

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Pollutant: NOxC4HR_1C Episode: Unit 1C Subpart GG Exceedance

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Babcock & Wilcox Power Generation Group NetDAHS©

Episode List Report
Version 62.0
Marcus Hook Energy Center
Marcus Hook
Marcus Hook, PA 19061
from 4/1/2018 00:00 to 6/30/2018 23:59
Generated: 7/2/2018 12:45
Types:

Pollutant: NOXCORR_1A Episode: Unit 1A NOx Subpart GG Downtime

Incident Start	Incident End	Type	Reason	Action
04/05/18 15:00 -	04/05/18 15:59	7: Invalid - OOC or Cal Fail	Excess Drift Pri. Analyzer	Recalibrated Analyzers

Reported Operating Time: 1632.0 Hours

TOTAL DURATION 1.00 Hours

7: Invalid - OOC or Cal Fail = 1.00 Hours
11: Excess Drift Pri. Analyzer = 1.00 Hours

Pollutant: NOXCORR_1B Episode: Unit 1B NOx Subpart GG Downtime

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Pollutant: NOXCORR_1C Episode: Unit 1C NOx Subpart GG Downtime

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

PA0006515278
42-045-00317

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEMO

TO Heather Henry
Air Quality Specialist
Southeast Regional Office

FROM William Schneider
Source Testing Section

THROUGH Charles Zadakis
Environmental Program Manager
Division of Source Testing and Monitoring

Rick Szekeres
Environmental Group Manager
Source Testing Section

DATE February 13, 2019

RE Source Test Audit Review
Marcus Hook Energy, LP
Combustion Turbine 1 (CT1) & Duct Burner 1 (Source ID 101)
CT1 Selective Catalytic Reduction (SCR; C01)
Combustion Turbine 2 (CT2) & Duct Burner 2 (Source ID 102)
CT2 Selective Catalytic Reduction (SCR; C02)
Combustion Turbine 3 (CT3) & Duct Burner 3 (Source ID 103)
CT3 Selective Catalytic Reduction (SCR; C03)
Marcus Hook Borough, Delaware County
Title V Operating Permit No. 23-00089
eFACTS: 2586558 PFID: 654588
eFACTS Inspection Result: NOVIO

MESSAGE:

Marcus Hook Energy (formerly FPL) operates three natural-gas fired combustion turbine (CT) generators, three associated duct burners, and a common steam turbine generator at its nominal 750 MW combined cycle power generating facility. These units are identified as "1", "2" and "3" in the facility's operating permit, which presumably would correspond to "CT1A", "CT1B", and "CT1C, the way these units are mostly referred to in the 2017 O'Brien and Gere emissions test report. Per the description in the test report, each combustion turbine generator, is a General Electric Model 7FA, with a maximum heat input rating of about 1949 MMBtu/hr, HHV, and a nominal rating of about 183 MW. Each unit includes a heat recovery steam generator (HRSG) and a supplemental energy duct burner, rated at about 333 MMBtu/hr. The HRSGs and duct burners are used to provide energy to fire the common steam turbine generator, with a nominal rating of 231 MW. The combined heat input from each unit's combustion turbine and duct burner is about 2282 MMBtu/hr, HHV. Per the facility's operating permit,

CT1B PM and THC Outlet Emissions while Firing Natural Gas (12/20/16-12/21/16)

Parameter	Run 1 12/20/16	Run 2 12/21/16	Run 3 12/21/16	Average	Allowable
Combustion turbine generator					
Fuel flow (Kscfh)	1844	1846	1851		
Heat input (MMBtu/hr; % of capacity) [1]	1936; 99	1938; 99	1943; 99		
Electrical output (MW; % of capacity) [1]	195; 107	195; 107	195; 107		
Duct burner					
Fuel flow (Kscfh)	96.1	63.1	63.0		
Heat input (MMBtu/hr; % of capacity) [1]	101; 30	66.3; 20	66.2; 20		
Volumetric flow rate (dscfm)	830,253	843,311	847,136	840,234	
FPM (EPA Method 5)					
gr/dscf	<0.0003	<0.0003	<0.0002	<0.0003	
lb/hr	<1.85	<2.03	<1.75	<1.88	
lb/MMBtu	<0.0009	<0.0010	<0.0008	<0.0009	
CPM (EPA Method 202)					
gr/dscf	<0.0005	<0.0003	<0.0004	<0.0004	
lb/hr	<3.61	<2.21	<3.16	<2.99	
lb/MMBtu	<0.0017	<0.0010	<0.0015	<0.0014	
Total PM (EPA M5+202)					
gr/dscf	<0.0008	<0.0006	<0.0006	<0.0007	
lb/hr	<5.46	<4.24	<4.91	<4.87	
lb/MMBtu	<0.0026	<0.0020	<0.0023	<0.0023	≤0.015 [2]
THC (EPA Method 25A as propane) [3]					
ppmvd @ 15% O_2	ND	ND	ND	ND	≤3.1 [2,3]
lb/hr	ND	ND	ND	ND	
lb/MMBtu	ND	ND	ND	ND	

[1,2,3] Same footnotes as appear under the CT1A PM and THC table on p. 4 of this memo.

CT1B SO_X Outlet Emissions while Firing Natural Gas (12/20/16-12/21/16) [1]

Parameter	Run 1 12/20/16	Run 2 12/21/16	Run 3 12/21/16	Average	Allowable
Volumetric flow rate (dscfm)	893,677	894,006	918,442	902,042	
SO_X					
Sulfuric acid mist					
mg/dscm	<0.39	<0.34	<0.32	<0.35	
lb/hr	<1.31	<1.14	<1.10	<1.18	
lb/MMBtu	<0.0006	<0.0005	<0.0005	<0.0005	≤0.0030 [3]
Sulfur dioxide (SO_2)					
mg/dscm	<0.04	<0.05	<0.05	<0.05	
lb/hr	<0.13	<0.18	<0.17	<0.16	
lb/MMBtu [2]	<0.0001	<0.0001	<0.0001	<0.0001	≤0.0080 [3]

[1,2,3] Same footnotes as appear under the CT1A SO_X table on p. 5 of this memo, with the exception that there were no audits analyzed with these test samples as discussed in Comment No. 2 on pp. 2-3 of this memo.

#43-045-00317.

NEXTera ENERGY

Marcus Hook, L .P.

100 Green Street
Marcus Hook, PA 19061-3403
(610) 364-2221

Delivered via UPS

March 22, 2016

RECEIVED
MAR 24 2016
Air Protection Division

EPA, Region III
Administrator
Enforcement Programs Section 3AP12
1650 Arch Street
Philadelphia, PA 19103-2029

Re: NextEra Energy MH50, L.P.
Permit No. 23-00084
Title V Operating Permit
Annual Certificate of Compliance – January 1 through December 31, 2015

Dear Administrator:

In accordance with 25 Pa. Code 127.441 and Section C. Site Level Requirements Condition #014, (a) of our Title V Air Permit, please find NextEra Energy MH50, L.P. Annual Certificate of Compliance for the period of January 1 through December 31, 2015.

A summary of the single incident of deviation is being submitted for the NextEra Energy MH50 Plant for the year 2015. This information was previously submitted to PADEP in Q2 quarterly excess emissions reports for compliance year 2015. The attachments contain a summary of the short term emission event outlined in the Q2 EDR cover letter, and the initial notification reported to PADEP on July 28, 2015.

If you have any questions or comments please contact me at (610) 364-2470 or by e-mail Nicole.Albers@nexteraenergy.com

Sincerely,

Nicole Albers

Nicole Albers
Senior Environmental Specialist

Enclosure
Cc: PADEP, Regional Air Program Manager

To: James Rebarchak. – Regional Air Program Manager – PADEP Regional Office

From: NextEra Energy MH50, L.P.

Re: Annual Deviation Report – Pursuant to Title V Permit - TVOP (23-00084)

Date: March 22, 2016

The following compliance report is submitted as required by our Title V permit Condition C. # 015 (b). For the purposes of this report, compliance means (1) exceedances of emission limits, as determined by such means as stack testing, continuous emission monitors, parametric monitoring and EPA Method 9 visible emission evaluations; (2) excursions from control device operating parameter requirements such as afterburner temperature, scrubber flow rate, baghouse pressure drop; (3) excursions from operational restrictions things such as throughput, fuel quality, and coating VOC and HAP content; and (4) failure to meet monitoring, record keeping or reporting requirements. The report addresses all data points, which are above a standard, limit etc, according to the averaging period, if any, specified in the permit. If no averaging period is specified in the permit, then any monitored reading is considered a deviation to be reported. Deviations are reported regardless of whether they may have caused excess emissions or whether they were the result of a malfunction.

The period covered by the report is from January 1, 2015 to December 31, 2015.

During the reporting period:

☐ **No deviations from permit requirements occurred during this semi-annual reporting period. (We conducted all required monitoring and associated record keeping and reporting. Required monitoring revealed no deviations from permit requirements.)**

☐ **We failed to conduct required monitoring/record keeping/reporting as explained on the attached form.**

☒ **We identified deviations as a result of required monitoring:**

- ☐ **Deviations were addressed in CEM Excess Emission Report(s):** _____
- ☐ **Deviations were addressed in Fuel Report(s) dated:** _____
- ☐ **Deviations were addressed in PADEP Report(s) dated:** _____
- ☒ **Deviations due to malfunctions were addressed in letters dated:** Letter to H. Henry July 30, 2015

☒ **Deviations were addressed in other report(s) dated:** July 30, 2015

Type of report: Quarter 2, 2015 PADEP Electronic Data Report

- ☐ **Deviations were previously described in Prompt Deviation Reports dated:**

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

☐ **"Other" deviations, which were not previously reported, are described in the attachment.**

Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ (Signature)

Tim Rich, Plant General Manager
(Name & Title)

Citation	*Terms & Conditions Contained in the Permit	Means of Determining Compliance Status	Type of Data the Means Provides	Periods of non-Compliance
SECTION A	**Facility/Source Identification**			
	Table of Contents	Not applicable	Continuous Intermittent	Yes No
	Site Inventory List – Capacity/Throughput	Unit in compliance; Records of submittals on file at facility	X Continuous Intermittent	Yes X No
SECTION B	**General Title V Requirements**			
[25 Pa. Code 121.1]	#001 - Definitions	Not applicable	Continuous Intermittent	Yes No
[25 Pa. Code 127.512(c)(4)]	#002 – Property rights	Not applicable	Continuous Intermittent	Yes No
[25 Pa. Code 127.446(a) and (c)]	#003 – Permit Expiration	Unit in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.412...]	#004 – Permit Renewal	Unit in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.450...]	#005 – Transfer of Ownership or Operational Control	Unit in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.513...]	#006 – Inspection and Entry (a) Upon presentation of credentials and other documents as may be required by law for inspection and entry purposes, the permittee shall allow the Department of Environmental Protection or authorized...	Unit in compliance; Procedure developed for authorization of PADEP personnel to access facility when requested	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.25...]	#007 – Compliance Requirements (a) The permittee shall comply with the conditions of this permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for...	Unit operated in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.512(c)(2)]	#008 – Need to Halt or Reduce Activity Not a Defense It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions...	Unit operations in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.411...]	#009 – Duty to Provide Information (a) The permittee shall furnish to the Department, within a reasonable time, information that the Department may request in writing to determine whether cause exists for modifying, revoking and...	Unit in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.463...]	#010 – Reopening and Revising the Title V Permit for Cause (a) This Title V permit may be modified, revoked, reopened...	Unit in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.543]	#011 – Reopening a Title V for Cause by EPA As required by the Clean Air Act and regulations adopted there under, this permit may be modified, reopened and...	Unit in compliance	X Continuous Intermittent	Yes X No

* See Title V Permit for full condition text

Citation	*Terms & Conditions Contained in the Permit	Means of Determining Compliance Status	Type of Data the Means Provides	Periods of non-Compliance
[25 Pa. Code 127.541]	#012 – Significant Operating Permit Modifications When permit modifications during the term of this permit do not qualify as minor permit modifications or administrative amendments…	Unit in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 121.1 and 127.462]	#013 – Minor Operating Permit Modifications (a) The permittee may make minor operating permit modifications…	Unit in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.450]	#014 – Administrative Operating Permit Amendments (a) The permittee may request administrative operating amendments…	Unit in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.512(b)]	#015 – Severability Clause The provisions of this permit are severable, and if any provision of this permit is determined by the Environmental Hearing Board or a court of competent jurisdiction to be invalid or unenforceable…	Unit operations in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.704]	#016 – Fee Payment (a) The permittee shall pay fees to the Department in accordance…	Unit in compliance; Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.14(b)]	#017 – Authorization for De Minimus Emission Increases (a) This permit authorizes de minimis increases from a new or existing source in accordance with …	Unit operations in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.11a & 127.215]	#018 – Reactivation of Sources (a) The permittee may reactivate a source at a facility that has been out of operation or production for at least one year, but less than…	Not applicable	Continuous Intermittent	Yes No
[25 Pa. Code 121.9 & 127.216]	#019 – Circumvention (a) The owner of this Title V facility, or any other person, may not circumvent the new source review requirements of…	Unit operations in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.513…]	#020 – Submissions (a) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the: Regional Air Program Manager PA Department of Environmental Protection…	Unit operations in compliance, Required Compliance tests, notifications and reports filed with PADEP	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441(c) & 127.463(e); Chapter139…]	#021 – Sampling, Testing and Monitoring Procedures (a) The permittee shall perform the emissions monitoring and analysis procedures or test methods for applicable requirements of this Title V permit. In addition to the sampling, testing and monitoring…	Unit in compliance; Records of submittals on file at facility	X Continuous Intermittent	Yes X No

* See Title V Permit for full condition text

Citation	*Terms & Conditions Contained in the Permit	Means of Determining Compliance Status	Type of Data the Means Provides	Periods of non-Compliance
[25 Pa. Code 127.511 & Chapter135]	#022 – Recordkeeping Requirements (a) The permittee shall maintain and make available, upon request by the Department, records of required monitoring information that…	Unit in compliance; Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.411(d), 127.422, 127.463(e) & 127.511(c)]	#023 – Reporting Requirements (a) The permittee shall comply with the reporting requirements for the applicable requirements specified in this Title V permit. In addition to the reporting requirements specified herein, the…	Unit in compliance; Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.513]	#024 – Compliance Certification (a) One year after the date of issuance of the Title V permit, and each year thereafter, unless specified elsewhere in the permit, the permittee shall submit to the Department and EPA Region III…	Unit in compliance by submittal of this Certification	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.3]	#025 – Operational Flexibility (a) The permittee is authorized to make changes within the Title V facility in accordance with the following provisions, …	Unit operations in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.411(d)…]	#026 – Risk Management (a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68…	Not applicable	Continuous Intermittent	Yes No
[25 Pa. Code 127.51(e)]	#027 – Approved Economic Incentives and Emissions Trading Programs No permit revision shall be required under approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this Title V permit.	Unit in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.516]	#028 – Permit Shield (a) The permittee's compliance with the conditions of this permit shall be deemed in compliance with applicable requirements…	Unit in compliance	X Continuous Intermittent	Yes X No
SECTION C	**Site Specific Requirements – I. Restrictions**			
[25 Pa. Code 121.7] (Prohibition of air pollution.)	#001 - No person may permit air pollution as that term is defined in the act.	Unit operations in compliance; Best Operating Practices and Procedures developed and in use by operators & facility personnel	X Continuous Intermittent	Yes X No

* See Title V Permit for full condition text

Citation	*Terms & Conditions Contained in the Permit	Means of Determining Compliance Status	Type of Data the Means Provides	Periods of non-Compliance
[25 Pa. Code 123.1] (Prohibition of certain fugitive emissions)	#002 -No person may permit the emission into the outdoor atmosphere of a fugitive air contaminant from a source other than the following:…	Unit operations in compliance; Best Operating Practices and Procedures developed and in use by operators & facility personnel	X Continuous Intermittent	Yes X No
[25 Pa. Code 123.2] (Fugitive particulate matter)	#003 - A person may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in 25 Pa. Code § 123.1(a)(1) -- (9) (relating to prohibition of certain fugitive…	Unit operations in compliance	X Continuous Intermittent	Yes X No
[25 Pa. Code 123.31] (Limitations)	#004 - A person may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside the property of the person…	Unit operations in compliance ;Best Operating Practices and Procedures developed and in use by operators & facility personnel	X Continuous Intermittent	Yes X No
[25 Pa. Code 123.41] (Limitations)	#005 - A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following: (1) Equal to or greater…	Unit operations in compliance ;Best Operating Practices and Procedures developed and in use by operators & facility personnel	X Continuous Intermittent	Yes X No
[25 Pa. Code 123.42] (Exceptions)	#006 - The limitations of 25 Pa. Code § 123.41 (relating to limitations) shall not apply to a visible emission in any of the following instances: (1) when the presence of uncombined water is the only…	Unit operations in compliance ;Best Operating Practices and Procedures developed and in use by operators & facility personnel	X Continuous Intermittent	Yes X No
[25 Pa. Code 129.14] (Open burning operations)	#007 – The permittee may not permit the open burning of material in the Southeast Air Basin, except when the open burning results from…	Unit operations in compliance ;Best Operating Practices and Procedures developed and in use by operators & facility personnel	X Continuous Intermittent	Yes X No
	Site Specific Requirements – II. Testing Requirements			
[25 Pa. Code 127.411] (Operating permit terms and conditions)	#008 – (a) If at any time the Department has cause to believe that air contaminant emissions from any source(s) listed in Section A, of this permit, may be in excess of the limitations specified in this Permit,…	Unit operations in compliance ;Best Operating Practices and Procedures developed and in use by operators & facility personnel	X Continuous Intermittent	Yes X No

* See Title V Permit for full condition text

Citation	*Terms & Conditions Contained in the Permit	Means of Determining Compliance Status	Type of Data the Means Provides	Periods of non-Compliance
	Site Specific Requirements – III. Monitoring Requirements			
[25 Pa. Code 123.43] (Measuring techniques)	#009 - Visible emissions may be measured using either of the following: (1) A device approved by the Department and maintained to provide accurate opacity measurements...	Unit operations in compliance ;Best Operating Practices and Procedures developed and in use by operators & facility personnel	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#010 - (a) The permittee shall conduct daily monitoring of the plant property, while the plant is in operation, for the presence of malodors, fugitive emissions, and visible emissions...	Unit in compliance; Use of Inspection of Watch procedure.	X Continuous Intermittent	Yes X No
	Site Specific Requirements – IV. Recordkeeping Requirements			
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#011 - Within thirty (30) days after this permit issuance, the permittee shall submit, to the Department for approval, the proposed recordkeeping formats required in this Title V Operating Permit.	Unit in compliance; information on file; Records of submittals on file at facility.	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#012 - The permittee shall maintain a record of all reports of fugitive emissions and malodors which deviate from the terms and conditions of this permit. The report shall contain, at a minimum, the following...	Unit in compliance; information on file; Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#013 – For each time the facility is monitored for odors, fugitive particulate emissions, and visible emissions, operations personnel shall record their observations and findings.	Unit in compliance; Use of Inspection of Watch procedure.	X Continuous Intermittent	Yes X No
	Site Specific Requirements – V. Reporting Requirements			
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#014 - The permittee, within eight (8) hours of discovery of any occurrence, notify the Department, at (484) 250-5920, of any malfunction of the source or associated air pollution control devices listed in Section A, of this permit...	Unit in compliance; on-site file and control room logbook	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#015 – The Department has changed the deviation and compliance certification reporting requirements. ... The permittee shall submit the following reports: (a) An annual certificate of compliance, due by April 1st of each year...	Unit in compliance; information on file; Records of submittals on file at facility.	X Continuous Intermittent	Yes X No
[25 Pa. Code 135.21] (Emission statements)	#016 - The permittee shall submit by March 1, of each year, and annual emission statement for the preceding calendar year.	Unit in compliance; information on file; Records of submittals on file at facility	X Continuous Intermittent	Yes X No

* See Title V Permit for full condition text

Citation	*Terms & Conditions Contained in the Permit	Means of Determining Compliance Status	Type of Data the Means Provides	Periods of non-Compliance
[25 Pa. Code 135.3] (Reporting)	#017 - The permittee shall submit by March 1, of each year, an Air Information Management System (AIMS) inventory report for the preceding calendar year.	Unit in compliance; information on file; Records of submittals on file at facility	X Continuous Intermittent	Yes X No
	Site Specific Requirements – VI. Work Practice Requirements			
[25 Pa. Code 123.1] (Prohibition of certain fugitive emissions)	#018 – A person responsible for any source specified in Condition #002, of this Section, shall take all reasonable actions to prevent particulate matter from becoming airborne...	Unit operations in compliance; Best Operating Practices and Procedures developed and in use by operators & facility personnel	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#019 The permittee shall reduce emissions of Class I and class II refrigerants during the service, maintenance, repair, and disposal of equipment in accordance with the requirements of 40 CFR 82,...	Unit in compliance	X Continuous Intermittent	Yes X No
	Site Specific Requirements – VII. Additional Requirements – No Additional Requirements	Not applicable	Continuous Intermittent	Yes No
	Site Specific Requirements – VIII. Compliance Certification – No Additional Requirements	Not applicable	Continuous Intermittent	Yes No
	Site Specific Requirements – IX. Compliance Schedule – No compliance milestones	Not applicable	Continuous Intermittent	Yes No
SECTION D	**Source Level Requirements – I. Restrictions**			
[25 Pa. Code 123.13] (Processes)	#001 – No person may permit the emissions into the outdoor atmosphere of particulate matter from this source at any time, in excess of 0.02 gr/dscf, pursuant to 25 Pa. Code 123.13(c)(1)(iii).	Unit in compliance.	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#002 - The amount of NOx emissions shall not exceed 463 tons per year on a 12-month rolling total. This includes emissions during start-up and shutdown periods.	Unit in compliance.	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#003 – [Compliance with the requirements...] The NOx emissions from the cogeneration unit shall not exceed the following while firing natural gas: (a). 45 ppm corrected to 15 percent oxygen on a dry basis for a period of 1-hour average, block...	Unit in compliance; Continuous NOx Emissions Monitoring System	X Continuous Intermittent	Yes X No

* See Title V Permit for full condition text

Citation	*Terms & Conditions Contained in the Permit	Means of Determining Compliance Status	Type of Data the Means Provides	Periods of non-Compliance
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#004 – [Compliance with the requirements…] The NOx emissions from the cogeneration unit shall not exceed the following while firing reformer gas: (a). 45 ppm corrected to 15 percent oxygen on a dry basis for a period of 1-hour average, block…	Unit in compliance; Continuous NOx Emissions Monitoring System	X Continuous Intermittent	Yes X No
Fuel Restriction(s)				
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#005 – The permittee shall only use natural gas and reformer gas in this cogeneration unit…	Unit in compliance; operations data on file; Use of natural gas only.	X Continuous Intermittent	Yes X No
[40 CFR Part 60 Standards of Performance for New Stationary Sources 40 CFR 60.333]	#006 – Subpart GG – Standards of Performance for Stationary Gas Turbines Standard for sulfur dioxide. No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8,000 ppmv)…	Unit in compliance; operations data on file; Use of natural gas only.	X Continuous Intermittent	Yes X No
Control Device Efficiencies Restrictions(s)				
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#007 – The Reasonable Available Control Technology (RACT) requirement for this Gas Turbine Cogeneration Unit shall be the injection of steam directly into the turbine to control the emissions of NOx.	Unit in compliance; Use of Continuous NOx Emissions Monitoring System.	X Continuous Intermittent	Yes X No
	Source Level Requirements – II. Testing Requirements			
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#008 – (a). Initial Application (Phase I) [A] Proposal(s) containing information as listed in the Phase I section of the Department's Continuous Source Monitoring Manual for the CEMS(s) must be submitted no later than 180 days after the effective date of this Title V Renewal Permit…	Unit in compliance; Phase I Application submitted to PADEP.	X Continuous Intermittent	Yes X No
[40 CFR Part 60 Standards of Performance for New Stationary Sources 40 CFR 60.335]	#009 – Subpart GG – Standards of Performance for Stationary Gas Turbines Test methods and procedures (a). The owner or operator shall conduct the performance tests required in 40 CFR 60.8, using either (1) EPA Method 20…	Unit in compliance.	X Continuous Intermittent	Yes X No

* See Title V Permit for full condition text

Citation	*Terms & Conditions Contained in the Permit	Means of Determining Compliance Status	Type of Data the Means Provides	Periods of non-Compliance
	Source Level Requirements – III. Monitoring Requirements			
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#010 – 25 Pa. Code 145.6 (a) Standard requirements – Monitoring requirements. (a) The owners and operators and the NOx authorized account representative of each NOx budget source and each NOx budget...	Unit in compliance; EPA NOx Allowance Tracking System and Continuous NOx Emissions Monitoring System	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.) [Additional Authority ...25 Pa. Code Chapter 139.]	#011 – The permittee shall monitor for the following on a monthly basis: (a) The amount of fuel used in the cogeneration unit; (b) The type of fuel used in the cogeneration unit. (c) The hours of operation for the cogeneration unit. (d) The NOx emissions and CEM monitoring data.	Unit in compliance; Use of Continuous Emissions Monitoring System. Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#012 – 25 Pa. Code 145.74(b) Standard requirements – Monitoring plans. (a) The owner or operator of a unit subject to an acid rain emissions limitation shall comply with requirements of 40 CFR 75.62 (relating to monitoring plan), (b) The owner or operator of a unit that is not subject to an acid rain emissions limitation shall comply with requirements of 40 CFR 75.62...	Unit in compliance. Not subject to acid rain emission limitations.	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#013 – Continuous Emission Monitoring Requirements The following continuous emission monitoring system(s) (CEMS) must be installed at the combustion turbine exhaust stack, approved by the Department..... requirements of Revision 7...	Unit in compliance; Use of Continuous NOx Emissions Monitoring System. Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[40 CFR Part 60 Standards of Performance for New Stationary Sources 40 CFR 60.334]	#014 – Subpart GG – Standards of Performance for Stationary Gas Turbines Monitoring of operations. (a). The owner or operator of any stationary gas turbine subject to the provision of 40 CFR 60 Subpart GG and using water or steam injection to control NOx emissions shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine...	Unit in compliance; Use of Continuous NOx and O2 Emissions Monitoring System	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#015 – Subpart GG – Standards of Performance for Stationary Gas Turbines Monitoring of operations. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60.334: (a) Shall monitor the total sulfur content of the fuel fired in the turbine, except as provided in paragraphs (c) below...	Unit in compliance; Fuel monitoring complies with Part 75, Appendix D and gaseous fuel is pipeline quality natural gas.	X Continuous Intermittent	Yes X No

* See Title V Permit for full condition text

Citation	*Terms & Conditions Contained in the Permit	Means of Determining Compliance Status	Type of Data the Means Provides	Periods of non-Compliance
	Source Level Requirements – IV. Recordkeeping Requirements			
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#016 – (a) The permittee shall keep records of the following on a monthly basis: (1) The amount of fuel used in the cogeneration unit. (2) The type of fuel used in the cogeneration unit...	Unit in compliance; information on file and Continuous NOx and O2 Emissions Monitoring System.	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#017 – Standard requirements – Recordkeeping and reporting requirements. Unless otherwise provided, the owner and operators of the NOx budget source and each NOx budget unit at the source shall maintain at a central location and provided upon request by the	Unit in compliance; Use of Continuous NOx Emissions Monitoring System. Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#018 – (a) The permittee shall comply with the recordkeeping requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), (and), ...Revision No. 7...	Unit in compliance; ; Records of submittals on file at facility ; EPA NOx Allowance Tracking System	X Continuous Intermittent	Yes X No
[40 CFR Part 60 Standards of Performance for New Stationary Sources 40 CFR 60.334]	#019 - Subpart GG – Standards of Performance for Stationary Gas Turbines Monitoring of operations. (a). The owner or operator of this source shall determine and record the nitrogen content of the gaseous fuel once per unit operating day if the owner or operator claims	Unit in compliance; Fuel monitoring complies with Part 75, Appendix D and gaseous fuel is pipeline quality natural gas.	X Continuous Intermittent	Yes X No
	Source Level Requirements – V. Reporting Requirements			
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#020 – 25 Pa. Code 145.74 Source emissions reporting requirements. (a) The authorized account representative shall submit to the Department and to the NOx Budget Administrator a quarterly emissions report in accordance with the requirements of 25 Pa. Code 145.74(d)...	Unit in compliance; Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#021 – 25 Pa. Code 145.30 Compliance certification report. For each control period in which one or more NOx budget units at a source are subject to the NOx budget emissions limitation, the NOx authorized account rep... submit ...(...a compliance report).	Unit in compliance; Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#022 – The permittee shall provide a quarterly report to the Department of all excess NOx emissions determined through NOx CEMS measurements...	Unit in compliance; Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#023 – (a) The permittee shall submit quarterly reports of continuous emission monitoring to the Department in accordance with the requirements .... (Revision No. 7...)	Phase I application submitted. Awaiting Phase II and III approval to commence submissions.	X Continuous Intermittent	Yes X No

* See Title V Permit for full condition text

Citation	*Terms & Conditions Contained in the Permit	Means of Determining Compliance Status	Type of Data the Means Provides	Periods of non-Compliance
[40 CFR Part 60 Standards of Performance for New Stationary Sources 40 CFR 60.334]	#024 - Subpart GG – Standards of Performance for Stationary Gas Turbines Monitoring of operations. For each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under 40 CFR Subpart GG, the owner or operator shall submit reports of excess emissions and monitor downtime in accordance with 40 CFR 60.7(c)…	Unit in compliance; Records of submittals on file at facility	X Continuous Intermittent	Yes X No
	Source Level Requirements – VI. Work Practice Requirements			
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#025 – (a) Continuous Emission Monitoring Systems and components must be operated and maintained in accordance with the requirements established in 25 Pa. Code Chapter 139… (Revision No. 7)	Phase I application submitted. Awaiting Phase II and III approval. However, CEMS is currently in compliance with this provision.	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#026 – Data Availability Standards for NOx CEMS Continuous emission monitoring shall meet the following minimum data availability requirements. …(90%/calendar month or 95% calendar quarter)…	Phase I application submitted. Awaiting Phase II and III approval. However, CEMS is currently in compliance with this provision.	X Continuous Intermittent	Yes X No
	Source Level Requirements – VII. Additional Requirements			
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#027 – 25 Pa. Code 145.90 Emission reduction credit provisions. NOx Budget Units may create, transfer and use emission reduction credits (ERCs) in accordance with Chapter 127 and 25 Pa. Code 145.90. ERCs may not be used to satisfy NOx allowance requirements.	Unit in compliance.	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions.)	#028 – 25 Pa. Code 145.1-145.90 NOx Budget Trading Program Incorporation The emission limitations, monitoring and all other requirements of the NOx budget Trading Program established in …. (are hereby incorporated by reference.)	Unit in compliance. Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions	#029 - 25 Pa. Code 145.74(c) Certification applications. The NOx authorized account representative shall submit an application to the Department within 45 days after completing all initial certification or recertification tests…	Phase I application submitted. Awaiting Phase II and III approval to commence submissions.	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms and conditions	#030 - 25 Pa. Code 145.10 Authorization and responsibilities of the NOx authorized account representative…	Unit in compliance. Records of submittals on file at facility	X Continuous Intermittent	Yes X No
[25 Pa. Code 127.441] (Operating permit terms	#031 - 25 Pa. Code § 145.6(b) Standard requirements – NOx requirements.	Unit in compliance. Records of submittals on file at facility	X Continuous Intermittent	Yes X No

* See Title V Permit for full condition text

Citation	*Terms & Conditions Contained in the Permit	Means of Determining Compliance Status	Type of Data the Means Provides	Periods of non-Compliance
and conditions	(a) The owners and operators of each NOx budget source and each NOx budget unit at the source shall hold NOx allowances...			
[25 Pa. Code 127.441] (Operating permit terms and conditions	#032 - 25 Pa. Code § 145.6(c) Standard requirements – Excess Emissions The owner and operators of a NOx budget unit that has excess emissions in any control period shall do the following: Surrender the NOx allowances required for deduction under 25 Pa. Code...	Unit in compliance. Records of submittals on file at facility	X Continuous Intermittent	Yes X No
SECTION E	**Alternative Operations Requirements**			
	No Alternative Operations exists for this Title V Facility			
SECTION F	**Emission Restriction Summary**			
Source ID 731	Source Description – Cogeneration – ABB Type B	Not Applicable		
Emission Limit	0.116 Lbs/MMBTU Firing Reformer Gas - NOx	Unit in compliance; EPA NOx Allowance Tracking System and Continuous NOx Emissions Monitoring System	X Continuous Intermittent	Yes X No
	0.210 Lbs/MMBTU Firing Natural Gas - NOx			
	45.00 PPMV averaged hourly: - NOx			
	67.00 PPMV averaged hourly; - NOx			
	464.00 Tons/Yr – 12 month rolling sum including SU/SDs - NOx			
	0.20 gr/CF DSC – TSP			
SECTION G	**Miscellaneous**			
	#001 – The following permit issued Operating Permit serves as the basis for certain terms and conditions as set forth in this Title V Permit: OP-23-0084	Unit in compliance; Reports on file	X Continuous Intermittent	Yes X No
	#002 – NOx allowance compliance certification information for FPL Energy MH50, L.P.	Unit in compliance; Reports on file.	X Continuous Intermittent	Yes X No
	#003 – Insignificant Sources (a) Parts Cleaner – uses non-VOC emissions cleaning solution. (b) (b) Lube Oil Reservoir – VOC emissions less than 1.0 TPY	Unit in compliance; Reports on file	X Continuous Intermittent	Yes X No
	#004 Through correspondence between FPL Energy MH50 and the EPA, there is documentation showing that pipeline natural gas would not require testing for nitrogen and sulfur content	Not Applicable	Continuous Intermittent	Yes No
	#005 APS No 317202; Authorization No 639646: This authorization is for the renewal of the Title V Permit for FPL.	Not Applicable	Continuous Intermittent	Yes No

* See Title V Permit for full condition text

NEXTera ENERGY

Marcus Hook, L.P.

NextEra Energy
100 Green Street
Marcus Hook, PA 19061-3403
(610) 859 9591

July 30, 2015

Ms. Heather Henry
Air Quality Specialist
PA Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

Subject: NextEra Energy Marcus Hook, L.P.
PA-00084 MH50 Short Term Emission Exceedance

Dear Ms. Henry,

Following up on our telephone discussion on 7/28/15, this letter is to notify PaDEP that on June 18, 2015 for the 11:00 – 12:00 hour, the MH50 unit exceeded the short term (hourly) emission limit of 45.0 ppmvd as specified in the subject permit Section D. Source Level Requirements #003. This was discovered during preparation of the quarterly EDRs on the morning of 7/28/15.

During operation on 6/18/2015, the unit began a startup sequence in hour 10, which continued into hour 11. Following the completion of the startup sequence, the steam injection system malfunctioned resulting in approximately seven minutes of elevated NO_x emissions that exceeded the 100 ppm scale range of the NO_x analyzer. These NO_x analyzer scale range exceedance minutes were substituted using a default value of 200 ppm in accordance with our petition letter dated April 21, 2011. In addition, the required quality assurance linearity testing was being conducted during this time frame. Based on supporting steam injection process data these invalid quality assurance linearity testing minutes adversely affected the hourly average.

For these reasons, the hourly NO_x ppm @ 15% O_2 and NO_x lb/mmBtu averages are above the steady state emission limits of 45 ppm @ 15% O_2 and 0.17 lb/mmBtu during 6/18/2015 hour 11. The MH50 data acquisition and handling system (DAHS) did not notify facility personnel of this elevated emissions event in real time due to the complexity of the event that included startup data, scale range exceedance data and invalid quality assurance testing data within the hourly average. Nextera has requested that the DAHS vendor change the high range default value to 200ppm – there will be no changes to the calculation other than the substitution high range default value. NextEra is

also continuing to investigate why the steam injection system malfunctioned. The unit has not been operated since this event.

If you should have questions regarding this submission, please contact me at either (610) 859-9591 x249 or by e-mail at nicole.albers@nexteraenergy.com.

Sincerely,

Nicole Albers

Nicole Albers
Environmental Specialist

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS StoreÂ®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, UPS Alliances (Office DepotÂ® or StaplesÂ®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
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NextEra ENERGY

Marcus Hook, L.P.

NextEra Energy
100 Green Street
Marcus Hook, PA 19061-3403
(610) 859 9591

July 30, 2015

Natalie Russ
Section Chief, Continuous Emission Monitoring Section
Pennsylvania Department of Environmental Resources
Division of Source Testing and Monitoring
Bureau of Air Quality
Harrisburg, PA 17105-8468

Subject: NextEra Energy Marcus Hook, L.P.
MH50 2015Q2 PA EDR Submittal

Dear Ms. Russ,

NextEra Energy Marcus Hook, L.P. is pleased to submit our Pennsylvania Electronic Data Reports in accordance with the Continuous Source Monitoring Manual Revision No. 8 for the combustion turbine MH50. The reports contain emissions data from second quarter 2015.

There were a total of 4 "Warnings" generated by PADEP's Continuous Emissions Monitoring Data Processing System (CEMDPS) upon validation of the quarterly emission reports. Table 1 provides additional details and explanation of these warnings.

Marcus Hook conducts transmitter accuracy tests for the orifice type fuel flow meter serving MH50 in accordance with 40 CFR 75, Appendix D, 2.1.6(c). In addition, Marcus Hook conducts primary element inspections (PEI) in accordance with 40 CFR 75, Appendix D 2.1.6.4. The most recent PEI for analyzer ID 7184 was completed on September 13, 2012.

During operation on 6/18/2015, the unit began a startup sequence in hour 10, which continued into hour 11. Following the completion of the startup sequence, the steam injection system malfunctioned resulting in approximately seven minutes of elevated NO_x emissions that exceeded the 100 ppm scale range of the NO_x analyzer. These NO_x analyzer scale range exceedance minutes were substituted using a default value of 200 ppm in accordance with our petition letter dated April 21, 2011. In addition, the required quality assurance linearity testing was being conducted during this time frame. Based on supporting steam injection process data these invalid quality assurance linearity testing minutes adversely affected the hourly average.

For these reasons, the hourly NO_x ppm @ 15% O_2 and NO_x lb/mmBtu averages are above the steady state emission limits of 45 ppm @ 15% O_2 and 0.17 lb/mmBtu during 6/18/2015 hour 11. The MH50 data acquisition and handling system (DAHS) did not

notify facility personnel of this elevated emissions event in real time due to the complexity of the event that included startup data, scale range exceedance data and invalid quality assurance testing data within the hourly average. NextEra is continuing to investigate why the steam injection system malfunctioned and the unit has not been operated since this event.

"I am authorized to make this submission on behalf of the owners and operators of the affected facility or affected units for which the submission is made. I certify under penalty of law under 35 P.S. § 4008 (relating to unlawful conduct), and 18 Pa.C.S. § 4903 (relating to false swearing), or § 4904 (relating to unsworn falsification to authorities) 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."

"I understand that DEP may reject any electronic data submission if it does not conform to the formatting requirements specified by DEP."

"To the extent that information has been submitted in electronic format, I acknowledge that DEP will rely solely on electronic information as accurate and complete information. I certify that the data provided in electronic format with this submission contains correct and current data and is consistent with all current hardcopy information."

If you should have questions regarding this submission, please contact me at either (610) 859-9591 x247 or by e-mail at Tim.Rich@nexteraenergy.com.

Sincerely,

Tim Rich
General Manager
Next Era Energy

Table 1 – Detail and Explanation of CEMDPS Warnings for Unit 1 (MH50)
Quarter 2, 2015

WARNINGS GENERATED BY THE SYSTEM	
1	CEMS 2609 for Emission Result 2021 - NOx ppm (Unit 1) does not have a valid RATA for the period. Last valid RATA information: Test Date= 02/28/2014; RATA expiration date= 03/31/2015. Please provide RATA overdue reason in the cover letter.
	Response: Fewer than 4 QA operating quarters or 8 calendar quarters have elapsed since the previous RATA was conducted.
2	CEMS 2607 for Emission Result 2035 - NOx lbs/hr (Unit 1) does not have a valid RATA for the period. Last valid RATA information: Test Date= 02/28/2014; RATA expiration date= 03/31/2015. Please provide RATA overdue reason in the cover letter.
	Response: Fewer than 4 QA operating quarters or 8 calendar quarters have elapsed since the previous RATA was conducted.
3	CEMS 2608 for Emission Result 2034 - NOx lbs/MBtu (Unit 1) does not have a valid RATA for the period. Last valid RATA information: Test Date= 02/28/2014; RATA expiration date= 03/31/2015. Please provide RATA overdue reason in the cover letter.
	Response: Fewer than 4 QA operating quarters or 8 calendar quarters have elapsed since the previous RATA was conducted.
4	Linearity result (EDR 888) record not submitted for Analyzer 7184 (Fuel Rate-kscfh). Please include Linearity results for this analyzer in accordance with the instructions listed under #13.19 in the CEMS Q&A document located on the Department's website at http://www.dep.state.pa.us/dep/deputate/airwaste/aq/cemspage/cems.htm.
	Response: Fuel flow meter transmitter accuracy tests were reported in 2012Q1. As discussed in Question 13.19, transmitter accuracy test results are included in the quarter in which they were completed. Fewer than four fuel flow QA operating quarters and fewer than 20 calendar quarters have elapsed since the previous transmitter accuracy test.

42-045-00317

NEXTera ENERGY Marcus Hook, L .P.

Delivered via UPS
(484) 250-5920

NextEra Energy
100 Green Street
Marcus Hook, PA 19061-3403
(610) 364 2221

January 30, 2016

Mr. Kevin McLemore
Pennsylvania Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

RECEIVED
FEB 01 2016
Air Protection Division

Subject: NextEra Energy Marcus Hook 750 Cogeneration Facility
PADEP Title V Permit No. 23-00089
NSPS - Excess Emissions and Monitoring Performance Report
Fourth Quarter 2015

Dear Mr. McLemore:

In accordance with the provisions of 40 CFR 60.7, New Source Performance Standards (NSPS), please find the attached Excess Emissions and Monitoring Systems Performance Report for the fourth quarter 2015.

The Marcus Hook 750 Cogeneration Facility houses three combined cycle combustion turbines, each with a fired Heat Recovery Steam Generator, and four auxiliary boilers. The combustion turbines combust only pipeline natural gas. The four auxiliary boilers combust pipeline natural gas and process gas supplied by the neighboring Sunoco facility.

The three combustion turbines are subject to 40 CFR 60 Subpart GG, Standards of Performance for Stationary Gas Turbines. The Subpart GG Reports are provided in **Attachment A**.

The four auxiliary boilers are subject to 40 CFR 60 Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. The Subpart Db Reports are provided in **Attachment B**.

Should you need further information or clarification on this submittal or any of the enclosed information, please do not hesitate to contact me at (610) 634-2488.

Sincerely,

Tim Rich
General Manager

Attachments

Cc:

Diana Esher, Chief
Air Protection Division
U.S. EPA, Region III
1650 Arch Street
Philadelphia, PA 19103

Attachment A

Combustion Turbines #1, #2 and #3
Subpart GG Reports

Babcock & Wilcox Power Generation Group NetDAHS©

United States Environmental Protection Agency
Region 3
Air Protection Division

Summary Report
Gaseous and Opacity Excess Emission and Monitoring System Performance
Version 43.0

Reporting dates 10/1/2015 00:00 through 12/31/2015 23:59
Generated: 1/20/2016 10:27

Pollutant: NOx Corrected 15% O2
Emission Limit: 104 ppmvdc 4-hr avg

Company Name: FPL Energy
Address: Marcus Hook
Model: TECO 42iLS and Servomex 1440
Date of Latest CEMS Certification or Audit: 11/17/2015

Unit Description: CT1 - GE Frame 7FA Gas Fired Combustion Turbine

Total source operating time in reporting period: **1623 hours**
Total Reported Time: **2208 hours**

Emission Data Summary (note 1)		CEMS Downtime Summary (note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	1.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	0.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	0.0
e. UnKnown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	1.0
3. Excess emission duration (%).....	0.00%	3a. CEMS downtime (% of operating time).....	0.06%
		3b. CEMS downtime (% of reported time).....	0.05%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):
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% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: Tim Rich
Signature: _____
Title: Plant General Manager
Date: 1/29/16

Babcock & Wilcox Power Generation Group NetDAHS©

United States Environmental Protection Agency
Region 3
Air Protection Division

Summary Report
Gaseous and Opacity Excess Emission and Monitoring System Performance
Version 43.0

Reporting dates 10/1/2015 00:00 through 12/31/2015 23:59
Generated: 1/20/2016 10:27

Pollutant: NOx Corrected 15% O2
Emission Limit: 104 ppmvdc 4-hr avg

Company Name: FPL Energy
Address: Marcus Hook
Model: TECO 42iLS and Servomex 1440
Date of Latest CEMS Certification or Audit: 11/16/2015

Unit Description: CT2 - GE Frame 7FA Gas Fired Combustion Turbine

Total source operating time in reporting period: **1629 hours**
Total Reported Time: **2208 hours**

Emission Data Summary (note 1)		CEMS Downtime Summary (note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	0.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	0.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	0.0
e. UnKnown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	0.0
3. Excess emission duration (%).....	0.00%	3a. CEMS downtime (% of operating time).....	0.00%
		3b. CEMS downtime (% of reported time).....	0.00%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):

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% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: Tim Rich

Signature: _____

Title: Plant General Manager

Date: 1/29/16

Babcock & Wilcox Power Generation Group NetDAHS©

United States Environmental Protection Agency
Region 3
Air Protection Division

Summary Report
Gaseous and Opacity Excess Emission and Monitoring System Performance
Version 43.0

Reporting dates 10/1/2015 00:00 through 12/31/2015 23:59
Generated: 1/20/2016 10:27

Pollutant: NOx Corrected 15% O2
Emission Limit: 104 ppmvdc 4-hr avg

Company Name: FPL Energy
Address: Marcus Hook
Model: TECO 42iLS and Servomex 1440
Date of Latest CEMS Certification or Audit: 11/12/2015

Unit Description: CT3 - GE Frame 7FA Gas Fired Combustion Turbine

Total source operating time in reporting period: **1607 hours**
Total Reported Time: **2208 hours**

Emission Data Summary (note 1)		CEMS Downtime Summary (note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	1.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	0.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	4.0
e. UnKnown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	5.0
3. Excess emission duration (%).....	0.00%	3a. CEMS downtime (% of operating time).....	0.31%
		3b. CEMS downtime (% of reported time).....	0.23%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):
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% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: Tim Rich
Signature: _____
Title: Plant General Manager
Date: 1/29/16

Babcock & Wilcox Power Generation Group NetDAHS©

Episode List Report
Version 62.0
FPL Energy
Marcus Hook
Marcus Hook, PA 19061
from 10/1/2015 00:00 to 12/31/2015 23:59
Generated: 1/20/2016 10:27
Types:

Pollutant: NOxC4HR_1A Episode: Unit 1A Subpart GG Exceedance

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Pollutant: NOxC4HR_1B Episode: Unit 1B Subpart GG Exceedance

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Pollutant: NOxC4HR_1C Episode: Unit 1C Subpart GG Exceedance

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Babcock & Wilcox Power Generation Group NetDAHS©

Episode List Report
Version 62.0
FPL Energy
Marcus Hook
Marcus Hook, PA 19061
from 10/1/2015 00:00 to 12/31/2015 23:59
Generated: 1/20/2016 10:27
Types:

Pollutant: NOXCORR_1A Episode: Unit 1A NOx Subpart GG Downtime

Incident Start	Incident End	Type	Reason	Action
10/27/15 11:00	10/27/15 11:59	7: Invalid - OOC or Cal Fail	Excess Drift Pri. Analyzer	Recalibrated Analyzers

Reported Operating Time: 1623.0 Hours

TOTAL DURATION 1.00 Hours

7: Invalid - OOC or Cal Fail = 1.00 Hours
11: Excess Drift Pri. Analyzer = 1.00 Hours

Pollutant: NOXCORR_1B Episode: Unit 1B NOx Subpart GG Downtime

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Pollutant: NOXCORR_1C Episode: Unit 1C NOx Subpart GG Downtime

Incident Start	Incident End	Type	Reason	Action
10/12/15 19:00	10/12/15 22:59	5: Invalid - Maintenance	Preventive Maintenance	Recalibrated Analyzers
11/20/15 09:00	11/20/15 09:59	7: Invalid - OOC or Cal Fail	Excess Drift Sec. Analyzer	Recalibrated Analyzers

Reported Operating Time: 1607.0 Hours

TOTAL DURATION 5.00 Hours

5: Invalid - Maintenance = 4.00 Hours
15: Preventive Maintenance = 4.00 Hours
7: Invalid - OOC or Cal Fail = 1.00 Hours
12: Excess Drift Sec. Analyzer = 1.00 Hours

Attachment B

Auxiliary Boilers #1, #2, #3 and #4
Subpart Db Reports

Babcock & Wilcox Power Generation Group NetDAHS©

United States Environmental Protection Agency
Region 3
Air Protection Division

Summary Report
Gaseous and Opacity Excess Emission and Monitoring System Performance
Version 43.0

Reporting dates 10/1/2015 00:00 through 12/31/2015 23:59
Generated: 1/27/2016 14:47

Pollutant: NOx
Emission Limit: 0.20 lb/mmBtu 30-day avg

Company Name: FPL Energy Marcus Hook, L.P.
Address: 100 Green Street, Marcus Hook, PA 19061
Model: TECO 42iLS and Servomex 1440
Date of Latest CEMS Certification or Audit: 11/20/2015

Unit Description: Auxiliary Boiler 1

Total source operating time in reporting period: **73 hours**
Total Reported Time: **2208 hours**

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	0.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	0.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	5.0
e. UnKnown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	5.0
3. Excess emission duration (%).....	0.00%	3a. CEMS downtime (% of operating time).....	6.85%
		3b. CEMS downtime (% of reported time).....	0.23%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):
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% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense.

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: Tim Rich
Signature:
Title: Plant General Manager
Date: 1/29/16

Babcock & Wilcox Power Generation Group NetDAHS©

United States Environmental Protection Agency
Region 3
Air Protection Division

Summary Report
Gaseous and Opacity Excess Emission and Monitoring System Performance
Version 43.0

Reporting dates 10/1/2015 00:00 through 12/31/2015 23:59
Generated: 1/27/2016 14:47

Pollutant: NOx
Emission Limit: 0.20 lb/mmBtu 30-day avg

Company Name: FPL Energy Marcus Hook, L.P.
Address: 100 Green Street, Marcus Hook, PA 19061
Model: TECO 42iLS and Servomex 1440
Date of Latest CEMS Certification or Audit: 01/23/2013

Unit Description: Auxiliary Boiler 2

Total source operating time in reporting period: **0 hours**
Total Reported Time: **2208 hours**

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	0.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	0.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	0.0
e. UnKnown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	0.0
3. Excess emission duration (%).....	0.00%	3a. CEMS downtime (% of operating time).....	0.00%
		3b. CEMS downtime (% of reported time).....	0.00%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):
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% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense.

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: Tim Rich
Signature: _____
Title: Plant General Manager
Date: 1/29/16

Babcock & Wilcox Power Generation Group NetDAHS©

United States Environmental Protection Agency
Region 3
Air Protection Division

Summary Report
Gaseous and Opacity Excess Emission and Monitoring System Performance
Version 43.0

Reporting dates 10/1/2015 00:00 through 12/31/2015 23:59
Generated: 1/27/2016 14:47

Pollutant: NOx
Emission Limit: 0.20 lb/mmBtu 30-day avg

Company Name: FPL Energy Marcus Hook, L.P.
Address: 100 Green Street, Marcus Hook, PA 19061
Model: TECO 42iLS and Servomex 1440
Date of Latest CEMS Certification or Audit: 11/09/2015

Unit Description: Auxiliary Boiler 3

Total source operating time in reporting period: **214 hours**
Total Reported Time: **2208 hours**

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	0.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	1.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	9.0
e. UnKnown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	10.0
3. Excess emission duration (%).....	0.00%	3a. CEMS downtime (% of operating time).....	4.67%
		3b. CEMS downtime (% of reported time).....	0.45%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):

[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% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense.

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: Tim Rich

Signature: _____

Title: Plant General Manager

Date: 1/29/16

Babcock & Wilcox Power Generation Group NetDAHS©

United States Environmental Protection Agency
Region 3
Air Protection Division

Summary Report
Gaseous and Opacity Excess Emission and Monitoring System Performance
Version 43.0

Reporting dates 10/1/2015 00:00 through 12/31/2015 23:59
Generated: 1/27/2016 14:47

Pollutant: NOx
Emission Limit: 0.20 lb/mmBtu 30-day avg

Company Name: FPL Energy Marcus Hook, L.P.
Address: 100 Green Street, Marcus Hook, PA 19061
Model: TECO 42iLS and Servomex 1440
Date of Latest CEMS Certification or Audit: 11/09/2015

Unit Description: Auxiliary Boiler 4

Total source operating time in reporting period: **2085 hours**
Total Reported Time: **2208 hours**

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down.....	0.0	a. Monitoring Equipment Malfunction.....	0.0
b. Control Equipment Failure.....	0.0	b. Non-Monitoring Equipment Malfunction...	0.0
c. Process Problems.....	0.0	c. Quality Assurance.....	1.0
d. Other Known Excess Emissions Cause.....	0.0	d. Other Known Monitor Downtime Cause.....	2.0
e. UnKnown Excess Emissions Cause.....	0.0	e. UnKnown Monitor Downtime Cause.....	0.0
2. Total duration of excess emission.....	0.0	2. Total duration of CEMS downtime.....	3.0
3. Excess emission duration (%).....	0.00%	3a. CEMS downtime (% of operating time).....	0.14%
		3b. CEMS downtime (% of reported time).....	0.14%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

Note(s):
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% or greater of the total operating time or the total CEMS downtime is 5% or greater of the total operating time, both this summary report and the excess emissions report described in 40CFR60.7(c) shall be submitted.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense.

On a separate page, describe any changes since last quarter in CEMS, process or controls.

Name: Tim Rich
Signature:
Title: Plant General Manager
Date: 1/29/16

Babcock & Wilcox Power Generation Group NetDAHS©

Episode List Report
Version 62.0
FPL Energy
Marcus Hook
Marcus Hook, PA 19061
from 10/1/2015 00:00 to 12/31/2015 23:59
Generated: 1/27/2016 14:47
Types:

Pollutant: NOx_DB30_1 Episode: Aux Boiler 1 NOx Subpart Db Exceedance Episode

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Pollutant: NOx_DB30_2 Episode: Aux Boiler 2 NOx Subpart Db Exceedance Episode

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Pollutant: NOx_DB30_3 Episode: Aux Boiler 3 NOx Subpart Db Exceedance Episode

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Pollutant: NOx_DB30_4 Episode: Aux Boiler 4 NOx Subpart Db Exceedance Episode

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Babcock & Wilcox Power Generation Group NetDAHS©

Episode List Report
Version 62.0
FPL Energy
Marcus Hook
Marcus Hook, PA 19061
from 10/1/2015 00:00 to 12/31/2015 23:59
Generated: 1/27/2016 14:47
Types:

Pollutant: NOX#M_75_1 Episode: Unit 1 NOx Subpart Db Downtime

Incident Start	Incident End	Type	Reason	Action
11/18/15 12:00	11/18/15 12:59	8: Invalid - DataErr/HWFail	Corrective Maintenance	Unit Startup After Replacing CEMS Analyzers Prior to First Calibration
11/20/15 08:00	11/20/15 08:59	8: Invalid - DataErr/HWFail	Corrective Maintenance	Unit Startup After Replacing CEMS Analyzers Prior to First Calibration
11/20/15 10:00	11/20/15 11:59	8: Invalid - DataErr/HWFail	Corrective Maintenance	Unit Startup After Replacing CEMS Analyzers Prior to First Calibration
12/17/15 08:00	12/17/15 08:59	8: Invalid - DataErr/HWFail	DAHS Malfunction	Expired 8 Hour Grace Period - Recalibrated Analyzers

Reported Operating Time: 73.0 Hours

TOTAL DURATION 5.00 Hours

20: Corrective Maintenance = 4.00 Hours
18: DAHS Malfunction = 1.00 Hours

Pollutant: NOX#M_75_2 Episode: Unit 2 NOx Subpart Db Downtime

Incident Start	Incident End	Type	Reason	Action

Found No Episodes of the above Types for this Channel

Pollutant: NOX#M_75_3 Episode: Unit 3 NOx Subpart Db Downtime

Incident Start	Incident End	Type	Reason	Action
11/06/15 07:00	11/06/15 07:59	8: Invalid - DataErr/HWFail	DAHS Malfunction	No Action Needed
11/06/15 11:00	11/06/15 11:59	8: Invalid - DataErr/HWFail	DAHS Malfunction	No Action Needed
11/07/15 08:00	11/07/15 08:59	8: Invalid - DataErr/HWFail	DAHS Malfunction	No Action Needed
11/08/15 08:00	11/08/15 08:59	8: Invalid - DataErr/HWFail	DAHS Malfunction	No Action Needed
11/09/15 11:00	11/09/15 11:59	8: Invalid - DataErr/HWFail	DAHS Malfunction	No Action Needed
11/20/15 17:00	11/20/15 18:59	8: Invalid - DataErr/HWFail	DAHS Malfunction	No Action Needed
11/23/15 18:00	11/23/15 18:59	8: Invalid - DataErr/HWFail	DAHS Malfunction	No Action Needed
11/24/15 07:00	11/24/15 07:59	8: Invalid - DataErr/HWFail	DAHS Malfunction	No Action Needed
11/26/15 15:00	11/26/15 15:59	6: Invalid - In Cal	Recalibration	No Action Needed

Reported Operating Time: 214.0 Hours

TOTAL DURATION 10.00 Hours

14: Recalibration = 1.00 Hour
18: DAHS Malfunction = 9.00 Hours

Pollutant: NOX#M_75_4 Episode: Unit 4 NOx Subpart Db Downtime

Incident Start	Incident End	Type	Reason	Action
11/03/15 08:00	11/03/15 08:59	7: Invalid - OOC or Cal Fail	Recalibration	No Action Needed
11/06/15 13:00	11/06/15 13:59	8: Invalid - DataErr/HWFail	DAHS Malfunction	No Action Needed
11/24/15 10:00	11/24/15 10:59	8: Invalid - DataErr/HWFail	DAHS Malfunction	No Action Needed

Reported Operating Time: 2085.0 Hours

TOTAL DURATION 3.00 Hours

14: Recalibration = 1.00 Hours
18: DAHS Malfunction = 2.00 Hours

Auxillary Boiler 01				
40 CFR 60 Subpart Db 30-Day Rolling NO_x Emissions				
Unit Operating Date	No. of Operating Hours In Day	F_d-Factor[1] 30-Day Rolling Average[2] (dscf/mmbtu)	NO_x 30-Day Rolling Average[2] (lb/mmbtu)	NO_x 30-Day Rolling Limit (lb/mmbtu)
11/18/2015	1	8234	0.026	0.2
11/20/2015	15	8247	0.026	0.2
11/21/2015	14	8262	0.027	0.2
11/23/2015	6	8274	0.027	0.2
11/24/2015	4	8283	0.027	0.2
12/8/2015	16	8300	0.027	0.2
12/14/2015	12	8310	0.027	0.2
12/16/2015	1	8311	0.027	0.2
12/17/2015	4	8324	0.027	0.2

[1] A default F_d factor of 8710 is used for natural gas combustion and an hourly F_d factor is determined using a gas chromatograph for combustion of gas supplied by the adjacent Sunoco facility.

[2] 30-day rolling averages are calculated using all valid hourly averages from the previous 30 steam generating unit operating days. Valid hours are determined using Part 75 data validation.

Auxillary Boiler 02				
40 CFR 60 Subpart Db 30-Day Rolling NO_x Emissions				
Unit Operating Date	No. of Operating Hours In Day	F_d-Factor[1] 30-Day Rolling Average[2] (dscf/mmbtu)	NO_x 30-Day Rolling Average[2] (lb/mmbtu)	NO_x 30-Day Rolling Limit (lb/mmbtu)
No steam generating unit operating days in 2015Q4				

[1] A default F_d factor of 8710 is used for natural gas combustion and an hourly F_d factor is determined using a gas chromatograph for combustion of gas supplied by the adjacent Sunoco facility.

[2] 30-day rolling averages are calculated using all valid hourly averages from the previous 30 steam generating unit operating days. Valid hours are determined using Part 75 data validation.

Auxillary Boiler 03				
40 CFR 60 Subpart Db 30-Day Rolling NO_x Emissions				
Unit Operating Date	No. of Operating Hours In Day	F_d-Factor[1] 30-Day Rolling Average[2] (dscf/mmbtu)	NO_x 30-Day Rolling Average[2] (lb/mmbtu)	NO_x 30-Day Rolling Limit (lb/mmbtu)
10/1/2015	24	8559	0.020	0.2
10/2/2015	12	8552	0.020	0.2
11/6/2015	17	8546	0.020	0.2
11/7/2015	24	8539	0.020	0.2
11/8/2015	24	8536	0.021	0.2
11/9/2015	24	8538	0.021	0.2
11/10/2015	24	8541	0.021	0.2
11/11/2015	24	8543	0.021	0.2
11/12/2015	22	8544	0.021	0.2
11/20/2015	2	8544	0.021	0.2
11/23/2015	6	8544	0.022	0.2
11/24/2015	8	8547	0.022	0.2
11/26/2015	3	8547	0.022	0.2

[1] A default F_d factor of 8710 is used for natural gas combustion and an hourly F_d factor is determined using a gas chromatograph for combustion of gas supplied by the adjacent Sunoco facility.

[2] 30-day rolling averages are calculated using all valid hourly averages from the previous 30 steam generating unit operating days. Valid hours are determined using Part 75 data validation.

Auxillary Boiler 04				
40 CFR 60 Subpart Db 30-Day Rolling NO_x Emissions				
Unit Operating Date	No. of Operating Hours In Day	F_d-Factor[1] 30-Day Rolling Average[2] (dscf/mmbtu)	NO_x 30-Day Rolling Average[2] (lb/mmbtu)	NO_x 30-Day Rolling Limit (lb/mmbtu)
10/2/2015	14	8563	0.018	0.2
10/3/2015	24	8558	0.019	0.2
10/4/2015	24	8552	0.019	0.2
10/5/2015	24	8551	0.019	0.2
10/6/2015	24	8549	0.019	0.2
10/7/2015	24	8547	0.020	0.2
10/8/2015	24	8547	0.020	0.2
10/9/2015	24	8547	0.020	0.2
10/10/2015	24	8547	0.020	0.2
10/11/2015	24	8547	0.021	0.2
10/12/2015	24	8545	0.021	0.2
10/13/2015	24	8546	0.021	0.2
10/14/2015	24	8547	0.021	0.2
10/15/2015	24	8544	0.022	0.2
10/16/2015	24	8544	0.022	0.2
10/17/2015	24	8545	0.022	0.2
10/18/2015	24	8550	0.023	0.2
10/19/2015	24	8556	0.023	0.2
10/20/2015	24	8558	0.024	0.2
10/21/2015	24	8560	0.024	0.2
10/22/2015	24	8560	0.024	0.2
10/23/2015	24	8560	0.025	0.2
10/24/2015	24	8562	0.025	0.2
10/25/2015	24	8564	0.026	0.2
10/26/2015	24	8567	0.026	0.2
10/27/2015	24	8570	0.026	0.2
10/28/2015	24	8573	0.027	0.2
10/29/2015	24	8575	0.027	0.2
10/30/2015	24	8579	0.027	0.2
10/31/2015	24	8582	0.027	0.2
11/1/2015	24	8584	0.027	0.2
11/2/2015	24	8586	0.027	0.2
11/3/2015	24	8589	0.027	0.2
11/4/2015	24	8592	0.027	0.2
11/5/2015	24	8594	0.027	0.2
11/6/2015	17	8596	0.027	0.2
11/7/2015	24	8595	0.027	0.2
11/8/2015	24	8594	0.027	0.2
11/9/2015	7	8593	0.027	0.2
11/12/2015	7	8595	0.027	0.2
11/13/2015	24	8597	0.027	0.2
11/14/2015	24	8598	0.027	0.2
11/15/2015	24	8600	0.027	0.2
11/16/2015	24	8601	0.027	0.2
11/17/2015	24	8604	0.027	0.2
11/18/2015	24	8606	0.027	0.2
11/19/2015	24	8604	0.027	0.2

Unit Operating Date	No. of Operating Hours In Day	F_d-Factor[1] 30-Day Rolling Average[2] (dscf/mmbtu)	NO_x 30-Day Rolling Average[2] (lb/mmbtu)	NO_x 30-Day Rolling Limit (lb/mmbtu)
11/20/2015	24	8599	0.027	0.2
11/21/2015	24	8600	0.027	0.2
11/22/2015	24	8601	0.027	0.2
11/23/2015	24	8604	0.027	0.2
11/24/2015	24	8608	0.027	0.2
11/25/2015	24	8610	0.027	0.2
11/26/2015	24	8614	0.027	0.2
11/27/2015	24	8617	0.027	0.2
11/28/2015	24	8620	0.027	0.2
11/29/2015	24	8624	0.027	0.2
11/30/2015	24	8627	0.027	0.2
12/1/2015	24	8630	0.027	0.2
12/2/2015	24	8633	0.027	0.2
12/3/2015	24	8636	0.027	0.2
12/4/2015	24	8639	0.027	0.2
12/5/2015	24	8642	0.027	0.2
12/6/2015	24	8645	0.027	0.2
12/7/2015	24	8647	0.027	0.2
12/8/2015	24	8647	0.027	0.2
12/9/2015	24	8650	0.027	0.2
12/10/2015	24	8649	0.027	0.2
12/11/2015	24	8646	0.027	0.2
12/12/2015	24	8643	0.027	0.2
12/13/2015	24	8642	0.027	0.2
12/14/2015	24	8639	0.027	0.2
12/15/2015	24	8636	0.027	0.2
12/16/2015	24	8634	0.027	0.2
12/17/2015	24	8633	0.027	0.2
12/18/2015	24	8631	0.027	0.2
12/19/2015	24	8630	0.027	0.2
12/20/2015	24	8632	0.027	0.2
12/21/2015	24	8631	0.027	0.2
12/22/2015	24	8628	0.027	0.2
12/23/2015	24	8625	0.026	0.2
12/24/2015	24	8621	0.026	0.2
12/25/2015	24	8619	0.026	0.2
12/26/2015	24	8613	0.026	0.2
12/27/2015	24	8610	0.026	0.2
12/28/2015	24	8607	0.026	0.2
12/29/2015	24	8605	0.026	0.2
12/30/2015	24	8603	0.026	0.2
12/31/2015	24	8598	0.026	0.2

[1] A default F_d factor of 8710 is used for natural gas combustion and an hourly F_d factor is determined using a gas chromatograph for combustion of gas supplied by the adjacent Sunoco facility.

[2] 30-day rolling averages are calculated using all valid hourly averages from the previous 30 steam generating unit operating days. Valid hours are determined using Part 75 data validation.

42-045-00317
PA0006545 88

Submitted Online
To: R3_APD_Permits
From: Eisenmann, Jennifer
On: 10/4/17

MarcusHook
ENERGY CENTER

Marcus Hook Energy Center
100 Green Street
Marcus Hook, PA 19061-3403

Certified Mail 7015 3430 0000 0250 6165

September 28, 2017

Mr. James Rebarchak
Regional Air Quality Program Manager
PA Department of Environmental Protection
2 East Main Street
Norristown, PA 19401

RE: Marcus Hook Energy Center – MH750
Permit No. 23-00089
Title V Operating Permit
1st Half 2017 Semi-Annual Deviation Report

Dear Mr. Rebarchak:

Pursuant to 25 Pa. Code 127.441 and Section C. Site Level Requirements Condition #015 (a) of Permit No. 23-00089, Marcus Hook Energy Center hereby submits the required Semi-Annual Deviation Report for the period of January 1st, 2017 through June 30th, 2017. This report was also submitted to EPA Region III via electronic mail.

The facility was in continuous compliance with all permit conditions throughout the reporting period.

If you hove any comments or questions regarding this report please contact me at (610) 364-2470 or via email Jennifer.eisenmann@ge.com.

Sincerely,

Jennifer Eisenmann

Jennifer Eisenmann
EHS Manager
Marcus Hook Energy Center

Enclosures: 1

Name:	Steve DiCarlo	**Title:**	Asset Manager
Signed:	Steven P. DiCarlo	**Date:**	09/29/2017

This certification must be signed by a responsible official. Any certification submitted without a valid signature will be returned.

The owner/operator shall identify any other material information needed in this certification to also comply with section 113(c)(2) of the Clean Air Act. If more spaces are needed, complete additional pages using the format shown in Addendum 1. This certification does not replace requirements pertaining to the submission of malfunction and CEM reports. DO NOT include that information on this form.