



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**



**Thomas S. Burack, Commissioner**

May 9, 2016

Robert Desrosiers, Director  
Berlin Station, LLC c/o Cate Street Capital, Inc.  
One Cate St, Suite 100  
Portsmouth, NH 03801

RE: On-Site Full Compliance Evaluation Report

Dear Mr. Desrosiers:

The New Hampshire Department of Environmental Services, Air Resources Division (“DES”) has completed a Full Compliance Evaluation of Burgess BioPower, LLC located in Berlin. The purpose of the evaluation was to determine compliance with its Temporary Permit (Permit number TP-0054), and the N.H. Admin. Rules, Env-A 100 *et seq.* The compliance evaluation included an on-site inspection completed on March 30, 2016. This is a copy of the On-Site Full Compliance Evaluation Report for your review and records.

DES identified deficiencies during this compliance evaluation, as detailed in this report.

The results of the compliance evaluation have been forwarded to the Enforcement Section for further review.

If you have any questions, please do not hesitate to give me a call at (603) 271-6797 or by email at [Alan.Moulton@des.nh.gov](mailto:Alan.Moulton@des.nh.gov).

Sincerely,

Alan H. Moulton  
Compliance Assessment Engineer  
Air Resources Division

cc: City Manager, City of Berlin, 168 Main St., Berlin, NH 03570  
Dammon Frecker, Managing Director, Cate Street Capital, Inc., One Cate St, Portsmouth, NH 03801  
David Walker, Plant Manager, Burgess BioPower, LLC, PO Box 39, Berlin, NH 03570

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## Abbreviations and Acronyms

AAL	Ambient Air Limit
acf	actual cubic foot
ags	above ground surface
ASTM	American Society of Testing and Materials
BACT	Best Available Control Technology
Btu	British thermal units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
COMS	Continuous Opacity Monitoring System
CAS	Chemical Abstracts Service
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
DER	Discrete Emission Reduction
DES	New Hampshire Department of Environmental Services
dscf	dry standard cubic feet
dscm	dry standard cubic meters
EER	Excess Emission Report
Env-A	New Hampshire Code of Administrative Rules – Air Resources Division
ERC	Emission Reduction Credit
EG	Emergency Generator
ft	foot or feet
ft <sup>3</sup>	cubic feet
gal	gallon
HAP	Hazardous Air Pollutant
HCL	Hydrochloric Acid
hp	horsepower
hr	hour
kW	kilowatt
LAER	Lowest Achievable Emission Rate
lb	pound
MACT	Maximum Achievable Control Technology
MM	million
MSDS	Material Safety Data Sheet
MW	megawatt
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standard for Hazardous Air Pollutants
NG	Natural Gas
NHDES	New Hampshire Department of Environmental Services
NO <sub>x</sub>	Oxides of Nitrogen
NSPS	New Source Performance Standard
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter < 10 microns
PM <sub>2.5</sub>	Particulate Matter < 2.5 microns

ppm	parts per million
PSD	Prevention of Significant Deterioration
psi	pounds per square inch
psig	pounds per square inch gauge
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
RICE	Reciprocating Internal Combustion Engine
RSA	Revised Statutes Annotated
RTAP	Regulated Toxic Air Pollutant
scf	standard cubic foot
SIP	State Implementation Plan
SCR	Selective Catalytic Reduction
SO <sub>2</sub>	Sulfur Dioxide
SSMP	Startup, Shutdown, and Malfunction Plan
TSP	Total Suspended Particulate
tpy	tons per consecutive 12-month period
ULSD	Ultra-Low-Sulfur Diesel fuel
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

**I. Facility Description**

DES conducted an On-Site Full Compliance Evaluation of Burgess BioPower, LLC (“Burgess”) on March 30, 2016 and the results are presented herein. The compliance evaluation covers the period calendar year 2014 to March 30, 2016.

In 2013 Burgess converted and upgraded the existing facility equipment and infrastructure located at the former Fraser Pulp Mill in Berlin, New Hampshire in order to develop a biomass-fueled, energy generating facility. This project was considered new construction, not a modification or reconstruction of the former Fraser Pulp Mill. Burgess uses whole tree wood chips and other low-grade clean wood as fuel, and is capable of generating nominally 75 MW of electric power (gross output).

The primary emission unit is a bubbling fluidized bed boiler rated at 1,013 MMBtu/hr, which is capable of generating up to 600,000 pounds per hour of steam at 825°F and 850 psig. The facility also includes a new wet cooling tower, two wood fuel off-loading and storage areas, and a 323 hp diesel fire pump.

Burgess is a major source under the Federal Prevention of Significant Deterioration (“PSD”) and Nonattainment New Source Review (“NNSR”) programs. Temporary Permit TP-0054 established Best Available Control Technology (“BACT”) limits for PM, SO<sub>2</sub>, CO, sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>), and beryllium; and, Lowest Achievable Emission Rate (“LAER”) for NO<sub>x</sub>. TP-0054 also required Burgess to obtain offsets for NO<sub>x</sub> emissions.

Facility Name and Address	Burgess BioPower, LLC One Community St Berlin, New Hampshire 03570
County	Coos
Telephone	(603) 319-4400 (Portsmouth) or (603) 752-8401 (Berlin)
AFS#	3300790137
Source Type	Title V
Inspection Date/Time	March 30, 2016 / 11:00 am
Inspection Type	On-Site Full Compliance Evaluation
Weather	50°F., 7 mph wind from the W, sunny
Inspection Period	2014 to March 30, 2016
Inspected by	Alan Moulton, DES Compliance Assessment Engineer Evan Mulholland, DES Administrator Compliance Bureau Padmaja Baru, DES New Source Review Program Manager
Source Contact(s)	Dammon Frecker, Managing Director, Development David Walker, Plant Manager Carl Belanger, Compliance Manager Matthew Smith, Operations Manager
Last Inspection	None.

Last Inspection Results:  
 a) There have been no previous compliance evaluations conducted at this facility.

Below is a summary of the permits issued along with the expiration dates.

Permit Number(s):	TP-0054	Issued:	July 26, 2010
		Reissued:	November 18, 2011
		Reissued:	November 30, 2012
		Reissued:	November 4, 2013
		Expired:	January 31, 2015
Acid Rain Permit AR-0005		Issued:	March 15, 2013
		Expires	March 31, 2018

On October 24, 2014, Burgess filed an application for a Title V Permit, hence, application shield applies. Burgess is required to submit a permit renewal application six months prior to the expiration of Acid Rain Permit AR-0005.

The on-site inspection included an opening meeting to discuss the purpose of the inspection as well as the rules pertaining to claims of confidentiality and facility safety concerns. Burgess agreed to the inspection and authorized access to the facility. Material provided and operations conducted by Burgess at the time of the inspection were not claimed as confidential.

**II. Emission Unit Identification and Facility Wide Emissions**

Table 2 below, taken from Permit TP-0054, lists the permitted emission units as verified during the evaluation.

<b>Table 2 - Significant Activity Identification</b>			
Emission Unit ID	Device	Manufacturer, Model, Serial Number	Maximum Design Gross Heat Input Capacity and Permitted Fuel Type(s)
EU01	Boiler #1	Babcock and Wilcox Model # Custom, N/A One Primary Combustion Chamber - Bubbling Fluidized Bed Four Startup Burners - Air atomized distillate oil Serial # TBD	<u>Primary Combustion Chamber</u> 1,013 MMBtu/hr – Clean wood chips Approximately equivalent to 113 ton/hr  <u>Four Startup Burners (each)</u> 60 MMBtu/hr – No. 2 fuel oil Approximately equivalent to 430 gal/hr
EU02	4-Cell Wet Cooling Tower	SPX Cooling Technologies Model #: F499-4.0-4 Serial #: TBD	Nominal circulation rate = 60,000 gal/minute
EU03	Fire Pump Engine	Cummins Model # CFP9E-F30 or equivalent Serial # TBD	2.27 MMBtu/hr – Diesel fuel oil Approximately equivalent to 16.2 gal/hr

DES observed the boiler, emergency fire pump engine, and the cooling tower, identified in Table 1. EU01 and EU02 were in operation during the inspection. The opacity from the stack for EU01 was 0%. EU03 was not in operation during the inspection.

Burgess is in the process of adding an emergency generator. On March 3, 2016, Burgess submitted an application for a permit to DES for the emergency generator. On May 3, 2016, DES issued Temporary Permit TP-0180 for this emergency generator. During the inspection, DES observed that the emergency generator has been placed on the pad but the electrical has not been hooked into the plant. For this unit, the exhaust system and the fuel tank are an integral part of the unit and were installed and connected at the time of manufacture. Burgess stated that no fuel has been added to the fuel tank.

DES observed the hour meter on the fire pump. The hour meter reading listed in the table below is from the non-resettable hour meter on the engine which shows total hours on the fire pump from initial start-up. The fire pump has not operated more than 500 hours per year between the installation date in 2013 and this inspection. Burgess presented documentation demonstrating that the fire pump operated less than 100 hours per year.

Unit	Hour Meter Reading - 2016 evaluation (hours)
Fire Pump Engine (EU03)	51.5

### Insignificant Activities

The table below lists the insignificant activities identified by Burgess. This list was confirmed by DES during the inspection.

Insignificant Activities	
Number	Emission Unit
1	Wood Storage Piles
2	12,000 gal ULSD tank for Boiler startup fuel
3	1,000 gal diesel tank for yard equipment
4	360 gal ULSD fuel tank for fire pump engine
5	Ash conveying system and silo
6	Dry sorbent injection media silo

Burgess has added three heating units to the facility. Each unit is below the permitting threshold.

Arizon Companies, Johnson Air-Rotation Systems Model #: AR75XX-10-MP-HE2500-F Serial #: B-19-16-21766-1 Rating: 2.1 MMBtu/hr using propane Manufactured: February 2016 Installed: April 2016	ARU-1
Arizon Companies, Johnson Air-Rotation Systems Model #: AR75XX-10-MP-HE2500-F Serial #: B-19-16-21766-2 Rating: 2.1 MMBtu/hr using propane Manufactured: February 2016 Installed: April 2016	ARU-2
Arizon Companies, Johnson Air-Rotation Systems Model #: AR75XX-10-MP-HE2500-F Serial #: B-19-16-21766-3 Rating: 2.1 MMBtu/hr using propane Manufactured: February 2016 Installed: April 2016	ARU-3

The table below lists the facility's reported annual emissions for the review period.

Facility Reported Annual Emissions (tpy)								
	TSP	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	Non-VOC HAPs/RTAPs
Permitted Limits	---	---	---	---	245	307.3	---	---
2015	7.77	5.79	5.09	14.61	181.12	183.00	6.31	2.55
2014	9.77	7.20	6.26	11.54	125.92	158.20	7.20	2.71
2013	1.68	1.17	0.91	1.59	23.90	16.70	1.33	1.14

### III. Stack Criteria

Table 3 below, taken from Permit TP-0054, lists the permitted stack requirements for the facility. During the inspection, DES observed that the stacks were vertical and unobstructed with no modifications noted by the facility.

Table 3 - Stack Criteria				
Stack ID	Emission Unit ID	Emission Unit Description	Minimum Stack Height Above Ground Level (ft)	Maximum Inside Stack Diameter (ft)
ST01	EU01	Boiler	320	11.25
ST02	EU02	Cooling Tower	48 (each cell)	31.6 (each cell)
ST03	EU03	Fire Pump Engine	25	0.5

**IV. Control Equipment**

Table 4 below, taken from Permit TP-0054, lists the required control equipment for the facility’s devices, as verified during the evaluation. With the exception of PCE03, sorbent injection, the air pollution control equipment listed in Table 4 shall be operated at all times that the associated devices are operating in order to meet permit conditions. Sorbent injection is only required as necessary to meet SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> emission limitations

<b>Table 4 - Pollution Control Equipment Identification</b>			
<b>Pollution Control Equipment ID</b>	<b>Description</b>	<b>Purpose</b>	<b>Emission Unit Controlled</b>
PCE01	Baghouse	Control of particulate matter emissions	EU01
PCE02	Selective Catalytic Reduction (SCR) System (cold side) with ammonia injection	Control of NO <sub>x</sub> emissions	EU01
PCE03	Sorbent Injection (as needed)	Control of SO <sub>2</sub> emissions	EU01
PCE04	Drift Eliminators	Control of particulate matter emissions	EU02

**V. Compliance with Operating and Emission Limitations**

**Permit Conditions**

Table 5 below, taken from Permit TP-0054, lists the operation and emission limitations for the facility, and any deficiencies noted during the evaluation.

<b>Table 5 - Operating and Emission Limitations</b>				
<b>Item #</b>	<b>Requirement</b>	<b>Applicable Unit</b>	<b>Regulatory Basis</b>	<b>Compliant</b>
1	<i>Emission Standard for NO<sub>x</sub></i> NO <sub>x</sub> emissions shall be limited to 0.060 lb/MMBtu of heat input based on a 30-day rolling average.	EU01	Env-A 618 (LAER) Env-A 619 (BACT)  <i>More Stringent than</i> Env-A 1211.03	<b>No</b>
<b>Findings:</b>				
<ul style="list-style-type: none"> <li>• <i>Compliance with NO<sub>x</sub> emissions is determined by the CEMS. The NO<sub>x</sub> CEMS was certified during the June 12, 2014 RATA; and</i></li> <li>• <i>As reported in the facility’s EERs, the 30-day average NO<sub>x</sub> emissions were less 0.060 lb/MMBtu. However, Burgess reported a deviation in which on April 24, 2015, the 30-day average NO<sub>x</sub> emissions exceeded 0.060 lb/MMBtu. See Section IX, Permit Deviation section of this report.</i></li> </ul>				



<b>Table 5 - Operating and Emission Limitations</b>				
<b>Item #</b>	<b>Requirement</b>	<b>Applicable Unit</b>	<b>Regulatory Basis</b>	<b>Compliant</b>
2	<u>Emission Standard for PM</u> PM, PM <sub>10</sub> , PM <sub>2.5</sub> emissions shall each be limited to 0.010 lb/MMBtu of heat input.	EU01	Env-A 619 (BACT) & 40 CFR 63 Subpart B (Case-by-Case MACT)  <i>More Stringent than</i> 40 CFR 60.43b(h)(1) & Env-A 2002.08	<b>Yes</b>
<b>Finding:</b> <i>Compliance with particulate emission standards can only be verified through stack testing. Burgess conducted stack testing on EU01 on June 10, 2014 and June 26, 2015. The results indicate the PM emissions meet the limit.</i>				
3	<u>Emission Standard for CO</u> CO emissions shall be limited to 0.075 lb/MMBtu of heat input based on a calendar day average.	EU01	Env-A 619 (BACT) & 40 CFR 63 Subpart B (Case-by-Case MACT)	<b>No</b>
<b>Findings:</b> <ul style="list-style-type: none"> <li>• <i>Compliance with CO emissions is determined by the CEMS. The CO CEMS was certified during the June 12, 2014 RATA; and</i></li> <li>• <i>As reported in the facility's EERs, Burgess has had several instances in which the CO emissions have exceeded the limit on a calendar day average. See Section IX, Permit Deviation section of this report.</i></li> </ul>				
4	<u>Emission Standard for SO<sub>2</sub></u> SO <sub>2</sub> emissions shall be limited to 0.012 lb/MMBtu of heat input.	EU01	Env-A 619 (BACT)	<b>Yes</b>
<b>Finding:</b> <ul style="list-style-type: none"> <li>• <i>Compliance with SO<sub>2</sub> emissions is determined by the CEMS. The SO<sub>2</sub> CEMS meets the certification requirements for 40 CFR Part 75 for very low sulfur fuel.</i></li> <li>• <i>Burgess submitted documentation that indicated that the SO<sub>2</sub> emissions are in compliance with the permit limits.</i></li> </ul>				
5	<u>Emission Standard for H<sub>2</sub>SO<sub>4</sub></u> H <sub>2</sub> SO <sub>4</sub> emissions shall be limited to 0.002 lb/MMBtu of heat input.	EU01	Env-A 619 (BACT)	<b>Yes</b>
<b>Finding:</b> <i>Compliance with H<sub>2</sub>SO<sub>4</sub> emission standards can only be verified through stack testing. Burgess conducted stack testing on EU01 on June 11, 2014. The results indicate the H<sub>2</sub>SO<sub>4</sub> emissions meet the limit.</i>				
6	<u>Emission Standard for Beryllium</u> Beryllium emissions shall be limited to 0.0000011 lb/MMBtu of heat input.	EU01	Env-A 619 (BACT)	<b>Yes</b>

<b>Table 5 - Operating and Emission Limitations</b>				
<b>Item #</b>	<b>Requirement</b>	<b>Applicable Unit</b>	<b>Regulatory Basis</b>	<b>Compliant</b>
<i><b>Finding: Compliance with Beryllium emission standards can only be verified through stack testing. Burgess conducted stack testing on EU01 on June 10-11, 2014. The results indicate the Beryllium emissions meet the limit.</b></i>				
7	<u>Emission Standard for Hydrogen Chloride</u> HCl emissions shall be limited to 0.000834 lb/MMBtu of heat input.	EU01	40 CFR 63 Subpart B (Case-by-Case MACT)	<b>Yes</b>
<i><b>Finding: Compliance with Hydrogen Chloride emission standards can only be verified through stack testing. Burgess conducted stack testing on EU01 on June 11, 2014 and June 26, 2015. The results indicate the Hydrogen Chloride emissions meet the limit.</b></i>				
8	<u>Emission Standard for Mercury</u> Mercury emissions shall be limited to 0.000003 lb/MMBtu of heat input.	EU01	40 CFR 63 Subpart B (Case-by-Case MACT)	<b>Yes</b>
<i><b>Finding: Compliance with Mercury emission standards can only be verified through stack testing. Burgess conducted stack testing on EU01 on June 10-11, 2014 and June 26, 2015. The results indicate the Mercury emissions meet the limit.</b></i>				
9	<u>Emission Standard for Ammonia Slip</u> Ammonia slip emissions shall be limited to 10 ppmvd @ 6% oxygen (O <sub>2</sub> ) dry volume based on a calendar day average.	EU01/ PCE02	Env-A 1400	<b>Yes</b>
<i><b>Finding: Compliance with Ammonia slip emissions is determined by the CEMS. The Ammonia CEMS was certified during the June 13, 2014 RATA.</b></i>				
10	<u>Operating Mode Limitation</u> The boiler shall be operated in normal mode at all times, except during periods of startup or shutdown. Normal mode shall be defined as operating at a heat input capacity of 654 MMBtu/hr or greater (~70% of its average maximum heat input capacity of 932 MMBtu/hr).	EU01	Env-A 618 & Env-A 619	<b>No</b>

**Table 5 - Operating and Emission Limitations**

Item #	Requirement	Applicable Unit	Regulatory Basis	Compliant
<p><b>Findings:</b> <i>Burgess maintains records of heat input. According to Burgess' Semi-Annual Permit Deviation and Monitoring Reports, on several occasions the boiler operated for less than 70% of the maximum heat input or less than 654 MMBtu/hr. Based on information submitted to DES, excluding startup and shutdown, the facility operated at less than 70% of the maximum heat input on the following days:</i></p> <p><i>2014</i>  <i>September 11, 12, 15, 22, 23, 24</i>  <i>October 18, 19, 20, 25, 26</i>  <i>November 24, 25, 26</i>  <i>December 15</i></p> <p><i>2015</i>  <i>April 2, 3, 4, 17, 21, 22</i>  <i>September 16, 17, 19, 20, 21, 24, 25, 26, 28</i>  <i>October 3, 11, 12, 13, 14, 15, 16, 17, 31</i>  <i>November 1, 2, 3, 4, 7, 8, 9, 10, 17, 18, 20, 21, 23</i></p> <p><i>This often was the result of normal variations in heat input. There are also days in which ISO New England requests that Burgess operate under reduced load.</i></p> <p><i>At times when Burgess operated at less than 654 MMBtu/hr, it did not exceed any emission limits.</i></p>				
11	<p><u>Emission Standards for Startup &amp; Shutdown</u>                      NOx and CO emissions shall be limited to 244.5 tpy and 307.3 tpy, respectively. This emission standard shall apply at all times, which includes normal operation, startup and shutdown.</p> <p>These emission standards shall remain in effect until startup &amp; shutdown specific limits are established and incorporated into this permit pursuant to Table 6 Item 21.</p>	EU01	Env-A 618 & Env-A 619	Yes
12	<p><u>Fuel Oil Annual Capacity Factor</u>                      The boiler shall operate at an annual capacity factor for fuel oil of 5 percent or less.</p>	EU01	Env-A 4602.42  More stringent than 40 CFR 60.44b(1)(1)	Yes
<p><b>Finding:</b> <i>This annual capacity factor is based on the percentage of heat input for the amount of a certain type of fuel divided by the potential heat input for the unit. According to Burgess' 2013 Annual Compliance Certification, the facility exceeded the 5% capacity factor for fuel oil.</i></p> <ul style="list-style-type: none"> <li><i>On March 31, 2014, Burgess reported the heat input from oil to be 50,046 MMBtu and a total heat input of 308,922 MMBtu, resulting in an annual capacity factor of 16% for 2013. When using the potential heat input, the capacity factor is 3%. Therefore, it is in compliance.</i></li> <li><i>On April 15, 2015, Burgess reported the heat input for oil to be 36,149 MMBtu and a total heat input of 3,780,197 MMBtu, resulting in an annual capacity factor of 1% for 2014. Using potential heat input, the capacity factor is 0.04%. Therefore, it is in compliance.</i></li> </ul>				

<b>Table 5 - Operating and Emission Limitations</b>				
<b>Item #</b>	<b>Requirement</b>	<b>Applicable Unit</b>	<b>Regulatory Basis</b>	<b>Compliant</b>
13	<u>Fuel Oil Startup Limitation</u> Fuel oil shall only be burned in the boiler during startup.	EU01	Env-A 619	<b>No</b>
<b>Findings:</b> See Notice of Findings DES issued to Burgess on December 30, 2014. See Burgess' February 27, 2015 response to the Notice of Findings.				
14	<u>Facility-wide annual Emission Standard for NOx</u> Emissions of NOx from the facility shall be limited to 245 tpy.	Facility-wide	Env-A 618	<b>Yes</b>
15	<u>Emission Standard for Particulate Drift</u> Emissions of PM from the cooling tower shall be limited to 0.0005% by weight of the cooling water flow rate.	EU02	Env-A 619	<b>No</b>
<b>Findings:</b> Compliance with PM emissions from the cooling tower can only be verified through stack testing. Burgess conducted testing on EU02 for particulate matter on May 20-22, 2014, which failed, and July 17-19, 2014, which passed. See Table 6, Item 4.  See Notice of Findings DES issued to Burgess on December 30, 2014. See Burgess' February 27, 2015 response to the Notice of Findings.				
16	<u>Maximum Sulfur Content in Fuel Oil</u> The sulfur content of No. 2 fuel oil or diesel fuel oil burned in the boiler and fire pump shall not exceed 0.0015 percent sulfur by weight.	EU01 & EU03	Env-A 619 & 40 CFR 60.4207 (NSPS Subpart III)  More stringent than Env-A 1604.01(a)	<b>Yes</b>
17	<u>Standard for Opacity</u> The opacity from the boiler shall not exceed 10 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.	EU01	Env-A 619  More stringent than 40 CFR 60.43b(f) (NSPS Subpart Db) & Env-A 2002.02	<b>Yes</b>
<b>Finding:</b> <ul style="list-style-type: none"> <li>Compliance with opacity is determined by the COMS. The COMS was certified during the June 9-13, 2014 RATA; and</li> <li>As reported in the facility's EERs, the maximum daily opacity during the evaluation period was 5.5%.</li> </ul>				

<b>Table 5 - Operating and Emission Limitations</b>				
<b>Item #</b>	<b>Requirement</b>	<b>Applicable Unit</b>	<b>Regulatory Basis</b>	<b>Compliant</b>
18	<u>Activities Exempt from Visible Emission Standards</u> No more than one of the following two exemptions shall be taken at a time: a. During periods of startup, shutdown and malfunction, average opacity shall not exceed 20% except for one period of 6 continuous minutes in any 60-minute period; or b. During periods of soot blowing, grate cleaning, and cleaning of fires, average opacity shall be allowed to be in excess of 20%, but not more than 27% for one period of 6 continuous minutes in any 60-minute period.	EU01	Env-A 2002.04(a)	<b>Yes</b>
19	<u>Visible Emission Standard for Fuel Burning Devices Installed After May 13, 1970</u> The average opacity from fuel burning devices installed after May 13, 1970 shall not exceed 20 percent for any continuous 6-minute period.	EU03	Env-A 2002.02	<b>Yes</b>
<p><b>Finding:</b> <i>During the inspection, the opacity from EU03 could not be verified because the device was not in operation. At the time the permit was issued, DES had sufficient information to indicate that under normal operating conditions, this device is capable of meeting the opacity standards.</i></p>				
20	<u>Activities Exempt from Visible Emission Standards</u> The average opacity shall be allowed to be in excess of those standards specified in Env-A 2002.02 (Table 5 Item 19) for one period of 6 continuous minutes in any 60-minute period during startup, shutdown, or malfunction.	EU03	Env-A 2002.04(c)	<b>Yes</b>
21	<u>Particulate Emission Standards for Fuel Burning Devices Installed on or After January 1, 1985</u> The particulate matter emissions from fuel burning devices installed on or after January 1, 1985 shall not exceed 0.30 lb/MMBtu.	EU03	Env-A 2002.08	<b>Yes</b>
<p><b>Finding:</b> <i>Compliance with particulate emission standards can only be verified through stack testing, which has not been required for this device, to date. However, at the time the permit was issued, DES had sufficient information to indicate that under normal operating conditions, this device is capable of meeting the particulate matter standard. The following emission factors are used to calculate the annual particulate matter emissions.</i></p> <p><i>For EU03, the manufacturer provided particulate matter emission factor of 0.014 lb/MMBtu for diesel fuel is used to calculate the annual particulate matter emissions.</i></p>				

<b>Table 5 - Operating and Emission Limitations</b>				
<b>Item #</b>	<b>Requirement</b>	<b>Applicable Unit</b>	<b>Regulatory Basis</b>	<b>Compliant</b>
22	<p><u>Fire Pump Operation</u>                      The fire pump shall only operate:</p> <ul style="list-style-type: none"> <li>a. As a mechanical or electrical power source when the primary power source for the Facility has been lost during an emergency such as a power outage;</li> <li>b. During normal maintenance and testing as recommended by the manufacturer; or</li> <li>c. During periods in which ISO New England (ISO-NE) declares the implementation of Action 12 of ISO-NE Operating Procedure 4, <i>Action During a Capacity Deficiency</i>.</li> </ul>	EU03	Env-A 101.661	<b>Yes</b>
<b>Finding: Burgess does not have a contract for Emergency Demand Response for the emergency fire pump.</b>				
23	<p><u>Fire Pump Operation</u>                      Fire pump operation shall be limited to:</p> <ul style="list-style-type: none"> <li>1. 100 hours for maintenance and readiness checks during any consecutive 12-month period; and</li> <li>2. 500 hours total during any consecutive 12-month period.</li> </ul>	EU03	Env-A 618 Env-A 619 40 CFR 60.4211(e) (NSPS Subpart III)  <i>More stringent than Env-A 1211.01(j)(1)</i>	<b>Yes</b>
24	<p><u>Pollution Control Equipment Operation</u>                      Operate all pollution control equipment in accordance with the Pollution Control Equipment Operating Plan required in Table 6 Item 20.</p>	PCE01	Env-A 604.01	<b>Yes</b>
25	<p><u>24-hour and Annual Ambient Air Limit</u>                      The emissions of any Regulated Toxic Air Pollutant (RTAP) shall not cause an exceedance of its associated 24-hour or annual Ambient Air Limit (AAL) as set forth in Env-A 1450.01, <i>Table Containing the List Naming All Regulated Toxic Air Pollutants</i>. Compliance was demonstrated at the time of permit issuance as described in the Division's Preliminary Determination for application #09-0285. The source must update the compliance demonstration using one of the methods provided in Env-A 1405 if:</p> <ul style="list-style-type: none"> <li>a. There is a revision to the list of RTAPs lowering the AAL for any RTAP emitted from the Facility;</li> <li>b. The amount of any RTAP emitted is greater than the amount that was evaluated in the Application Review Summary (e.g., use of a cooling water treatment chemical will increase);</li> <li>c. An RTAP that was not evaluated in the Preliminary Determination will be emitted (e.g., a new cooling water treatment chemical will be used); or</li> <li>d. Stack conditions (e.g. air flow rate) change.</li> </ul>	Facility-wide	Env-A 1400	<b>Yes</b>

<b>Table 5 - Operating and Emission Limitations</b>				
<b>Item #</b>	<b>Requirement</b>	<b>Applicable Unit</b>	<b>Regulatory Basis</b>	<b>Compliant</b>
26	<p><u>Revisions of the List of RTAPs</u>                      In accordance with RSA 125-I:5 IV, if the Division revises the list of RTAPs or their respective AALs or classifications under RSA 125-I:4, II and III, and as a result of such revision the Owner or Operator is required to obtain or modify the permit under the provisions of RSA 125-I or RSA 125-C, the Owner or Operator shall have 90 days following publication of notice of such final revision in the New Hampshire Rulemaking Register to file a complete application for such permit or permit modification.</p>	Facility-wide	Env-A 1404.02	<b>Yes</b>
<p><b>Finding:</b> <i>The notice for the April 4, 2014 revision of Env-A 1400 was published in the New Hampshire Rulemaking Register on April 3, 2014. Between 2010 and April 4, 2014, the annual AAL for Chlorine dropped from 7.5 ug/m<sup>3</sup> to 5.0 ug/m<sup>3</sup>. The modeled annual impact for chlorine is 0.18 ug/m<sup>3</sup>, which is still below the new limit. This review determined that the April 4, 2014 revisions to Env-A 1400 resulted in no changes to the RTAPs emitted by the facility.</i></p> <p><i>Burgess has also found that they now have emissions of Potassium Hydroxide. Burgess did a review of the emissions of Potassium Hydroxide in October 2014. The review indicated that Burgess was in compliance with Env-A 1400.</i></p>				
27	<p><u>Relaxation of PSD Opt-Out Requirements</u>                      At such time that a particular source or modification becomes a major PSD source or major modification solely by virtue of a relaxation in any enforceable limitation on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of 40 CFR 52.21 (j) through (s) shall apply to the source or modification as though construction had not yet commenced on the source or modification.</p>	Facility-wide	40 CFR 52.21(r)(4)	<b>Not Applicable</b>
<p><b>Finding:</b> <i>Burgess is already a PSD source.</i></p>				
28	<p><u>Accidental Release Program Requirements</u>                      The quantities of regulated chemicals stored at the facility are less than the applicable threshold quantities established in 40 CFR 68.130. The facility is subject to the Purpose and General Duty clause of the 1990 Clean Air Act, Section 112(r)(1). General Duty includes the following responsibilities:</p> <ol style="list-style-type: none"> <li>Identify potential hazards which result from such releases using appropriate hazard assessment techniques;</li> <li>Design and maintain a safe facility;</li> <li>Take steps necessary to prevent releases; and</li> <li>Minimize the consequences of accidental releases that do occur.</li> </ol>	Facility-wide	CAAA 112(r)(1)	<b>Yes</b>

Table 5 - Operating and Emission Limitations				
Item #	Requirement	Applicable Unit	Regulatory Basis	Compliant
29	<u>Title V Permit Application</u> Submit an application for a Title V Permit to Operate to the Division within 12 months of commencing operation. <b>(initial startup)</b>	Facility-wide	Env-A 609.07(a)(2)	<b>Yes</b>
<b>Finding: Burgess commenced operation on October 25, 2013. Burgess submitted an application for a Title V Permit to Operate to DES on October 24, 2014.</b>				
30	<u>Acid Rain Permit Application</u> Submit to the Division at least 12 months prior to commencing operation: a. An application for an Acid Rain Permit; and, b. An application for amendment to this permit, if necessary to incorporate Acid Rain requirements.	EU01	40 CFR 72.30(b)(2)(ii) (Acid Rain)	<b>Yes</b>
<b>Finding: Burgess submitted an application for an Acid Rain Permit to DES on October 2, 2012. DES subsequently issued Acid Rain Permit AR-0005 to Burgess on March 15, 2013. Burgess has not needed to amend this permit.</b>				

**VI. Compliance with Monitoring and Testing Requirements**

Table 6 below, taken from Permit TP-0054, lists the monitoring and testing requirements for the facility, and any deficiencies noted during the evaluation.

Table 6 - Monitoring and Testing Requirements						
Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
1	To be determined	When conditions warrant, the Division may require the Owner or Operator to conduct stack testing in accordance with USEPA or other Division-approved methods.	Upon request by the Division	Facility Wide	RSA 125-C:6, XI	<b>Yes</b>
<b>Finding: During the evaluation period, DES has not required additional testing.</b>						
2	Particulate Matter & Opacity	Conduct stack testing for: a. PM, PM <sub>10</sub> , PM <sub>2.5</sub> and opacity to determine compliance with the PM and opacity emission limits in Table 5 Items 2 and 17; and b. Condensable PM to confirm emission rates evaluated during review of application 09-0285.	Within 60 days after achieving the maximum production rate and not later than 180 days after initial startup	EU01	40 CFR 60.46b(d) NSPS Subpart Db & 40 CFR 60.8 Subpart A	<b>No</b>
<b>Findings: See Notice of Findings DES issued to Burgess on December 30, 2014. See Burgess' February 27, 2015 response to the Notice of Findings.</b>						



**Table 6 - Monitoring and Testing Requirements**

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
3	SO <sub>2</sub> , H <sub>2</sub> SO <sub>4</sub> , Beryllium, HCl, Mercury & VOCs	Conduct stack testing for: a. SO <sub>2</sub> , H <sub>2</sub> SO <sub>4</sub> , beryllium, HCl, and mercury to determine compliance with the emission limitations in Table 5 Items 4 through 8; and b. VOCs to confirm emission rates evaluated during review of application 09-0285.	Within 60 days after achieving the maximum production rate and not later than 180 days after initial startup	EU01	RSA 125-C:6, XI & 40 CFR 63 Subpart B (Case-by-Case MACT)	No
<b>Findings: See Notice of Findings DES issued to Burgess on December 30, 2014. See Burgess' February 27, 2015 response to the Notice of Findings.</b>						
4	PM	Conduct stack testing for PM to determine compliance with the emission limits in Table 5 Item 15.	Within 60 days after achieving the maximum production rate and not later than 180 days after initial startup	EU02	RSA 125-C:6, XI	No
<b>Findings: See Notice of Findings DES issued to Burgess on December 30, 2014. See Burgess' February 27, 2015 response to the Notice of Findings.</b>						
5	General Stack Testing Requirements	Compliance testing shall be planned and carried out in accordance with the following schedule: a. A pre-test protocol shall be submitted to the Division at least 30 days prior to the commencement of testing. The pre-test protocol shall contain the information specified in Env-A 802.04; b. In the event that the Owner or Operator is unable to conduct the performance test on the date specified in the notification provided pursuant to a. above, the Owner or Operator shall notify the Division and USEPA at least 7 days prior to the originally scheduled test; c. The Owner or Operator and any contractor retained by the Owner or Operator to conduct the test shall meet with a Division representative at least 15 days prior to the test date to finalize the details of the testing; d. A test report shall be submitted to the Division within 60 days after the completion of testing. The test report shall contain the information specified in Env-A 802.11(c); and	Initial performance test and subsequent testing	Facility-wide	Env-A 802 40 CFR 60.8 & 40 CFR 63 Subpart B (Case-by-Case MACT)	Yes

**Table 6 - Monitoring and Testing Requirements**

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
		e. The Owner or Operator shall be subject to fees for any initial performance testing and monitoring required by this permit which is observed by the Division and for its review of any subsequent compliance test reports.	Initial performance tests		Env-A 704.02	Yes
<p><b>Finding: See Notice of Findings DES issued to Burgess on December 30, 2014. See Burgess' February 27, 2015 response to the Notice of Findings.</b></p> <p><b>Additionally, DES has yet to bill Burgess for fees for the performance test.</b></p>						
6	General Stack Testing Requirements	<p><u>Operating Conditions During a Stack Test</u>                      Compliance testing shall be conducted under one of the following operating conditions:</p> <p>a. Between 90 and 100 percent, inclusive, of maximum production rate or rated capacity;</p> <p>b. A production rate at which maximum emissions occur; or</p> <p>c. At such operating conditions agreed upon during a pre-test meeting conducted pursuant to Env-A 802.05.</p>	Initial performance test and subsequent testing	Facility-wide	Env-A 802.10 40 CFR 60.8 & 40 CFR 63 Subpart B (Case-by-Case MACT)	Yes
7	NOx, CO, and diluent gas CEMS	<p><u>NOx, CO, and diluent gas Continuous Emission Monitoring System</u>                      Install, calibrate, operate, and maintain CEMS for NOx, CO, and diluent gas (oxygen or carbon dioxide), which shall be used to determine compliance with NOx, CO, and emission limits established in Table 5 Items 1, 3, and 11, in accordance with the following:</p> <p>a. Install, calibrate, operate, and maintain each CEMS according to 40 CFR 60 Appendix B, and the CEMS &amp; COMS Monitoring Plan developed in accordance with Table 6 Item 12;</p> <p>d. Operate the CEMS in accordance with the SSMP during periods of startup, shutdown, and malfunction;</p> <p>e. Conduct a performance evaluation for each CEMS in accordance with the requirements of 40 CFR 63.8 and 40 CFR 60 Appendix B</p> <p>f. Each CEMS must complete a minimum of one cycle of operation (sampling, analysis and data recording) for each successive 15-minute period; and</p> <p>g. Reduce the CEMS data in accordance with 40 CFR 63.8(g)(2).</p>	Continuous	EU01	40 CFR 63 Subpart B (Case-by-Case MACT) 40 CFR 60.8 & Env-A 808	Yes

**Table 6 - Monitoring and Testing Requirements**

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
8	Ammonia slip	<p><u>Ammonia Continuous Emission Monitoring System</u>                      Install, calibrate, operate, and maintain CEMS for ammonia which shall be used to determine compliance with ammonia slip emission limitation in Table 5 Item 9, in accordance with the following:</p> <ul style="list-style-type: none"> <li>a. Install, calibrate, operate, and maintain the CEMS according the CEMS &amp; COMS Monitoring Plan developed in accordance with Table 6 Item 12;</li> <li>d. Operate the CEMS in accordance with the SSMP during periods of startup, shutdown, and malfunction;</li> <li>e. Conduct a performance evaluation for the CEMS in accordance with the requirements of Env-A 808.08.</li> </ul>	Continuous	EU01/ PCE02	Env-A 808	Yes
9	Opacity COMS	<p><u>Continuous Opacity Monitoring System</u>                      Install, calibrate, maintain, and operate a COMS, which shall be used to demonstrate compliance with the opacity limitation in Table 5 Item 17, in accordance with the following:</p> <ul style="list-style-type: none"> <li>a. Install, operate, and maintain the COMS according to of 40 CFR 60, Appendix B PS1 and the CEMS &amp; COMS Monitoring Plan developed in accordance with Table 6 Item 12;</li> <li>c. Operate the COMS in accordance with the SSMP during periods of startup, shutdown, and malfunction;</li> <li>d. Conduct a performance evaluation of each COMS according to the requirements of 40 CFR 63.8 and 40 CFR 60, Appendix B PS1;</li> <li>e. Each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period; and</li> <li>f. Reduce COMS data as specified in 40 CFR 63.8(g)(2).</li> </ul>	Continuously	EU01	40 CFR 60.48b(a) Appendix B & 40 CFR 63 Subpart B (Case-by-Case MACT)	Yes

**Table 6 - Monitoring and Testing Requirements**

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
10	Minimum Specifications for CEMS and COMS	The Owner or Operator shall ensure that each CEMS and COMS meets the following operating requirements: <ol style="list-style-type: none"> <li>a. Each COMS shall average the opacity data to result in consecutive, non-overlapping 6-minute averages;</li> <li>b. Each CEMS average and record the data for each calendar hour;</li> <li>c. All CEMS and COMS shall include a means to display instantaneous values of percent opacity and gaseous emission concentrations and complete a minimum of one cycle of operation which shall include measurement, analyzing, and data recording for each successive 5-minute period for systems measuring gaseous emissions and each 10-second period for systems measuring opacity, unless a longer time period is approved in accordance with Env-A 809; and</li> <li>d. A valid hour of CEM emissions data means a minimum of 42 minutes of CEMS readings taken in any calendar hour, during which the CEMS is not in an out of control period and the facility is in operation.</li> </ol>	N/A	EU01	Env-A 808.03	Yes
11	Stack Volumetric Flow	<ol style="list-style-type: none"> <li>a. Install, calibrate, and maintain a stack volumetric flow measuring device according to the following requirements:                             <ol style="list-style-type: none"> <li>1. All differential pressure flow monitors shall have an automatic blow-back purge system installed, and in wet stack conditions, shall have the capability of drainage of the sensing lines; and</li> <li>2. The stack flow monitoring system shall have the capability for manual calibration of the transducer while the system is on-line and for a zero check.</li> </ol> </li> <li>b. Alternatives to in-stack flow monitoring devices for determination of stack volumetric flow rate may be used if the Owner or Operator provides the Division with technical justification that the alternative can meet the same requirements for data availability, data accuracy, and quality assurance as an in-stack device.</li> </ol>	Continuously	EU01	Env-A 808.03(d)	Yes

**Table 6 - Monitoring and Testing Requirements**

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
12	CEMS & COMS Monitoring Plan	Prepare and submit to the Division a CEMS and COMS Monitoring Plan which includes the following: <ol style="list-style-type: none"> <li>a. A complete description of the emission monitoring system including, but not limited to:                             <ol style="list-style-type: none"> <li>1. The identity of the CEM system vendor, including the company name, address, and telephone number;</li> <li>2. The identity of the manufacturer, model number, measurement method employed, and range of each of the major components or analyzers being used;</li> <li>3. A description of the sample gas conditioning system;</li> <li>4. A description and diagram showing the location of the monitoring system, including sampling probes, sample lines, conditioning system, analyzers, and data acquisition system; and</li> <li>5. A description of the data acquisition system, including sampling frequency, and data averaging methods;</li> </ol> </li> <li>b. The mathematical equations used by the data acquisition system, including the value and derivation of any constants, to calculate the emissions in terms of the applicable emission standards;</li> <li>c. An example of the data reporting format;</li> <li>d. A description of the instrument calibration methods, including the frequency of calibration checks and manual calibrations, and path of the sample gas through the system;</li> <li>e. The means used by the data acquisition system of determining and reporting periods of excess emissions, monitor downtime, and out-of-control periods; and</li> <li>f. A description of the means used to provide for short-term and long-term emissions data storage.</li> </ol>	Submit to the Division at least 90 days prior to installation of any CEMS	EU01	Env-A 808.04	Yes

**Table 6 - Monitoring and Testing Requirements**

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
13	CEM Performance Specification Testing	Conduct performance specification testing for a CEM system in accordance with the following: <ol style="list-style-type: none"> <li>a. The performance specification requirements of 40 CFR 60, Appendix B or Division-approved requirements for units not covered by Appendix B (e.g., ammonia CEM) for each CEMS and COMS;</li> <li>b. For each COMS, the calibration error test specified in 40 CFR 60, Appendix B, Performance Specification 1, paragraph 7.1.4, shall be performed with the monitor installed on the stack or duct that is to be the permanent location for the monitor;</li> <li>c. All performance specification testing shall be conducted within 180 days of the CEMS or COMS initial startup;</li> <li>d. The Division shall be notified of the date or dates of the performance specification testing at least 30 days prior to the scheduled dates; and</li> <li>e. A written report summarizing the results of the testing shall be submitted to the Division within 30 days of the completion of the test.</li> </ol>	As specified	EU01	Env-A 808.05	<b>No</b>

*Findings: See Notice of Findings DES issued to Burgess on December 30, 2014. See Burgess' February 27, 2015 response to the Notice of Findings.*

**Table 6 - Monitoring and Testing Requirements**

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
14	CEMS & COMS QA/QC Plan	Prepare and maintain a Quality Assurance/Quality Control (QA/QC) plan which covers each CEMS and COMS at the facility in accordance with the following: <ol style="list-style-type: none"> <li>a. Review the QA/QC plan and all data generated by its implementation at least once each year;</li> <li>b. Revise or update the QA/QC plan, as necessary, based on the results of the annual review, by:                             <ol style="list-style-type: none"> <li>1. Documenting any changes made to the CEM or changes to any information provided in the monitoring plan;</li> <li>2. Including a schedule of, and describing, all maintenance activities that are required by the CEM manufacturer or that might have an effect on the operation of the system;</li> <li>3. Describing how the audits and testing required by Env-A 808 will be performed; and</li> <li>4. Including examples of the reports that will be used to document the audits and tests required by Env-A 808.</li> </ol> </li> </ol>	<u>Initial</u> Submit to the Division within 30 days of completion of the CEMS/COMS Performance Specification testing required in Table 6 Item 13  <u>Annual</u> Submit results of annual review within 30 days of the annual review	EU01	Env-A 808.06	No

**Findings:** Burgess completed the CEMS/COMS testing on June 13, 2014. Burgess' QA/QC plan was due to DES 45 days after the completion of testing, as required by Env-A 808.06, revised October 31, 2010, or by July 28, 2014. Burgess submitted the QA/QC plan to DES on August 1, 2014. The plan was submitted late and Burgess reported this in its Semi-Annual Permit Deviation and Monitoring Report.

**Table 6 - Monitoring and Testing Requirements**

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
15	General Audit Requirements for all CEM Systems	Audit each CEMS in accordance with the following: a. Required quarterly CEMS audits shall be performed anytime during each calendar quarter, but successive quarterly audits shall occur no more than 4 months apart; b. Notify the Division at least 30 days prior to the performance of a Relative Accuracy Test Audit (RATA); c. Provide at least 2 weeks' notice prior to any other planned audit or test procedure; d. Submit to the Division a written summary report of the results of all required audits that were performed in that quarter within 30 calendar days following the end of each quarter, in accordance with the following: 1. For gaseous CEMS audits, the report format shall conform to that presented in 40 CFR 60, Appendix F, Procedure 1, section 7, or Division approved alternatives for units not covered by Appendix F (e.g., ammonia); and 2. For COMS audits, the report format shall conform to that presented in EPA-600/8-87-025, April 1992, "Technical Assistance Document: Performance Audit Procedures for Opacity Monitors".	Quarterly	EU01	Env-A 808.07	Yes
<p><b>Finding: Quarterly audits were done starting with the 3<sup>rd</sup> Quarter 2014 and done every quarter since.</b></p>						
16	CEMS Audit Requirements	Perform audits for CEMS in accordance with procedures described in 40 CFR 60, Appendix F or Division approved alternatives for units not covered by Appendix F (e.g., ammonia), and Env-A 808.08.	Quarterly	EU01	Env-A 808.08	Yes
<p><b>Finding: Quarterly audits were done starting with the 3<sup>rd</sup> Quarter 2014 and done every quarter since.</b></p>						
17	COMS Audit Requirements	Perform audits for COMS in accordance with procedures described in Env-A 808.09 and 40 CFR 60, Appendix B, Specification.	Quarterly	EU01	Env-A 808.09	Yes
<p><b>Finding: Quarterly audits were done starting with the 3<sup>rd</sup> Quarter 2014 and done every quarter since.</b></p>						



**Table 6 - Monitoring and Testing Requirements**

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
18	CEMS & COMS Data Availability Requirements	a. Each CEMS shall operate at all times during the operation of the source, except for periods of CEMS breakdown, repairs, calibration checks, preventive maintenance, and zero/span adjustments; b. The percentage CEMS and COMS data availability shall be maintained at a minimum of 90% on a calendar quarter basis; and c. The percentage CEMS and COMS data availability shall be maintained at a minimum of 75% for any calendar month.	N/A	EU01	Env-A 808.10	Yes
<p><b>Finding:</b> <i>The CEMS and COMS data availability requirements are included in Burgess' EERs. Burgess has submitted EERs quarterly as required. The EERs indicate that while EU01 was running, the CEMs and COMS operated at all times except during periods of calibration or malfunction.</i></p>						
19	Data Availability Calculations	The Owner or Operator shall use the following equation for calculating percentage data availability:  $\frac{VH + CalDT}{OH - AH} \times 100$ Where:  VH = Number of valid hours of CEM data in a given time period for which the data availability is being calculated when the plant is in operation;  CalDT = Number of hours, not to exceed one hour per day, during facility operation when the CEM is not operating due to the performance of the daily CEM calibrations as required in 40 CFR 60, Appendix F;  OH = Number of facility operating hours during a given time period for which the data availability is being calculated; and  AH = Number of hours during facility operation when the performance of quarterly audits as required by those procedures specified in Env A 808.08 or Env-A 808.09, as applicable, require that the CEM be taken out of service in order to conduct the audit.	As specified	EU01	Env-A 808.10	Yes
<p><b>Finding:</b> <i>Burgess uses this equation to calculate the percentage of data availability.</i></p>						

**Table 6 - Monitoring and Testing Requirements**

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
20	Pollution Control Equipment Operating Plan	Develop and submit to the Division for review and approval a Pollution Control Equipment Operating Plan which contains the following elements, at a minimum for each control device: <ol style="list-style-type: none"> <li>a. Type, manufacturer, model, and serial number;</li> <li>b. Pollutants controlled;</li> <li>c. Description of the control device and how it operates in the process;</li> <li>d. The capture efficiency, control efficiency, and their method of determination;</li> <li>e. The operational parameters that are monitored (e.g., temperature, pressure drop, flowrate etc.);</li> <li>f. For each operational parameter in e. above, the range indicative of proper operation of the control device during normal operation, startup, and shutdown;</li> <li>g. For catalytic control devices:                             <ol style="list-style-type: none"> <li>1. Method and frequency of catalyst activity monitoring; and</li> <li>2. The frequency of catalyst replacement.</li> </ol> </li> <li>h. The methods and frequency of operational parameter data monitoring and recordkeeping;</li> <li>i. Operational parameter setpoints and alarms;</li> <li>j. Planned and actual operator responses to malfunctions of the device;</li> <li>k. Procedures for operation of the device;</li> <li>l. Frequency and type of scheduled maintenance and calibration; and</li> <li>m. Data sufficient to demonstrate the actual performance of the device that will be periodically submitted to the Division in the Pollution Control Equipment Operation Report required in Table 8 Item 14.</li> </ol>	Submit to the Division at least 90 days prior to operation of any control device	PCE01 – PCE04	RSA 125-C:6, XI & 40 CFR 63 Subpart B (Case-by-Case MACT)	Yes

**Finding:** Burgess submitted the pollution control equipment operating plan on October 23, 2014.

**Table 6 - Monitoring and Testing Requirements**

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis	Compliant
21	Startup/Shutdown Malfunction Plan	Develop and submit to the Division for review and approval a Startup/Shutdown Malfunction Plan which contains the following elements, at a minimum: a. Procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; b. A program of corrective actions for malfunctioning processes, air pollution control equipment, and monitoring equipment; and c. NOx, and CO emission limitations for startup and shutdown of the biomass boiler (EU01).	Submit to the Division within 12 months of commencing operation	EU01, EU02 & PCE01-PCE04	Env-A 618 Env-A 619 & 40 CFR 63 Subpart B (Case-by-Case MACT)	Yes
<i>Finding: Burgess submitted the Startup/Shutdown Malfunction Plan on October 24, 2014.</i>						
22	Hours of Operation	The fire pump shall be equipped with a non-resettable hour meter.	Continuous	EU03	40 CFR 60.4209(a) (Subpart III)	Yes
23	Sulfur Content of Liquid Fuels	Conduct testing in accordance with appropriate ASTM test methods or retain delivery tickets in accordance with Table 7 Item 8 in order to demonstrate compliance with the sulfur content limitation provisions specified in this permit for liquid fuels.	For each delivery of fuel oil/diesel to the facility	Facility-wide	Env-A 806.02 & Env-A 806.05	Yes
<i>Finding: Burgess retains a written statement from the fuel supplier, which is received on an annual basis.</i>						

**VII. Compliance with Recordkeeping Requirements**

Table 7 below, taken from Permit TP-0054, lists the recordkeeping requirements for the facility, and any deficiencies noted during the evaluation.

**Table 7 - Recordkeeping Requirements**

Item #	Requirement	Duration/Frequency	Applicable Unit	Regulatory Basis	Compliant
1	<u>Record Retention and Availability</u> Maintain all records required by this permit on file. These records shall be available for review by the Division upon request.	Retain for a minimum of 5 years	Facility-wide	40 CFR 60.7 (f), 40 CFR 60.49b(o), Env-A 902.01(a) & Env-A 903.04	Yes
<i>Finding: Burgess has been in operation since October 2013 and has maintained all records. Burgess indicated that it intends to maintain records for a minimum of five years.</i>					

**Table 7 - Recordkeeping Requirements**

Item #	Requirement	Duration/Frequency	Applicable Unit	Regulatory Basis	Compliant
2	<u>NSPS Startup, Shutdown, Malfunction Records</u> Maintain records of the occurrence and duration of any: a. Startup, shutdown, or malfunction in the operation of the affected facility; b. Any malfunction of the air pollution control equipment; and c. Any periods during which a continuous monitoring system or monitoring device is inoperative.	Each occurrence	EU01	40 CFR 60.7 (b)	Yes
3	<u>General Recordkeeping Requirements for Combustion Devices</u> Maintain the following records of fuel characteristics and utilization for the fuel used in the each combustion device: a. Type (e.g. wood chips, No. 2 fuel oil) and amount of fuel burned; and b. Hours of operation.	Daily, Monthly, & 12-month rolling	EU01 & EU03	Env-A 903.03 & 40 CFR 60.49b(d)	Yes
4	<u>Fuel Annual Capacity Factors</u> Maintain records of the annual capacity factor individually for fuel oil and wood.	Monthly & 12-month rolling	EU01	40 CFR 60.49b(d)	Yes
5	<u>Opacity NSPS Subpart Db Recordkeeping Requirement</u> Maintain records of opacity.	Continuously	EU01	40 CFR 60.49b(f)	Yes
6	<u>Fire Pump</u> Maintain the following records of fuel characteristics and utilization for the fuel used in the each combustion device: a. Type (e.g. diesel fuel oil) and amount of fuel burned; and b. Hours of operation for maintenance & readiness testing; and c. Hours of operation for emergency use.	Monthly	EU03	Env-A 903.03 & 40 CFR 60.4211(e) NSPS Subpart IIII	Yes
7	<u>NSPS Recordkeeping Requirements for Internal Combustion Engines</u> Maintain documentation from the engine manufacturer certifying that the engine complies with the applicable emissions standards stated in 40 CFR 60 Subpart IIII.	Maintain up-to-date data	EU03	40 CFR 60.4211 (Subpart IIII)	Yes
8	<u>Liquid Fuel Oil Recordkeeping Requirements</u> Maintain fuel delivery tickets that contain the following information: a. The date of delivery; b. The quantity of delivery;	For each delivery of fuel oil to the facility	EU01 & EU03	Env-A 806.05	Yes

**Table 7 - Recordkeeping Requirements**

Item #	Requirement	Duration/ Frequency	Applicable Unit	Regulatory Basis	Compliant
	c. The name, address and telephone number of the company making the delivery; and d. The maximum weight percentage of sulfur or a written statement from the fuel supplier that the sulfur content of the fuel as delivered does not exceed standards listed in this permit for that fuel.	Whenever there is a change in fuel supplier but at least annually			<b>Yes</b>
<p><b>Finding:</b> For the diesel fuel, the USEPA has defined specifications for Ultra-Low-Sulfur Diesel fuel, including sulfur content. Burgess purchases Ultra-Low Sulfur Diesel fuel and presented delivery slips that indicate ULSD was delivered.</p>					
9	<p><u>VOC Emission Statements Recordkeeping Requirements</u>                      If the actual annual VOC emissions from all permitted devices located at the Facility are greater than or equal to 10 tpy, then maintain records of the following information:</p> <p>a. Identification of each VOC-emitting process or device;</p> <p>b. The operating schedule during the high ozone season (June 1 through August 31) for each VOC-emitting process or device identified in a. above, including:</p> <ol style="list-style-type: none"> <li>1. Typical hours of operation per day; and</li> <li>2. Typical days of operation per calendar month.</li> </ol> <p>c. The following VOC emission data from all VOC-emitting processes or devices identified in Table 7 Item 9.a above, including:</p> <ol style="list-style-type: none"> <li>1. Actual VOC emissions for:</li> <li>2. The calendar year, in tons; and</li> <li>3. A typical high ozone season day during that calendar year, in pounds per day; and</li> </ol> <p>d. The emission factors and the origin of the emission factors used to calculate the VOC emissions.</p>	Maintain up-to-date data	Facility-wide	Env-A 904.02	<b>Not Applicable</b>
<p><b>Finding:</b> Actual VOC emissions were less than 10 tons per year during the evaluation period.</p>					

**Table 7 - Recordkeeping Requirements**

Item #	Requirement	Duration/Frequency	Applicable Unit	Regulatory Basis	Compliant
10	<u>General NOx Recordkeeping Requirements</u> Maintain records of the following information: a. Identification of each fuel burning device; b. Operating schedule during the high ozone season (June 1 through August 31) for each fuel burning device identified in Table 7 Item 10.a, above, including: 1. Typical hours of operation per day; 2. Typical days of operation per calendar month; 3. Number of weeks of operation; 4. Type and amount of each fuel burned; 5. Heat input rate in MMBtu/hr; 6. Actual NOx emissions for the calendar year and a typical high ozone day during that calendar year; and 7. Emission factors and the origin of the emission factors used to calculate the NOx emissions.	Maintain up-to-date data	EU01 & EU03	Env-A 905.02	Yes
11	<u>Recordkeeping Requirements for Add-On NOx Control Equipment</u> Maintain records of the following information: a. Air pollution control device identification number, type, model number, and manufacturer; b. Installation date; c. Unit(s) controlled; d. Type and location of the capture system, capture efficiency percent, and method of determination; e. Information as to whether the air pollution control device is always in operation when the fuel burning device it is serving is in operation; f. Destruction or removal efficiency of the air pollution control equipment, including the following information: 1. Destruction or removal efficiency, in percent; 2. Date tested; 3. Emission test results; and g. Method of determining destruction or removal efficiency, if not tested.	Maintain up-to-date data	PCE02	Env-A 905.03	Yes
12	<u>Pollution Control Equipment Operating Plan</u> Maintain the following: a. The Pollution Control Equipment Operating Plan required in Table 6 Item 20; and b. Records of all data required to be recorded in accordance with the Pollution Control Equipment Operating Plan.	Maintain up-to-date plan	PCE01-PCE04	Env-A 906	Yes
		As specified in the plan			Yes
13	<u>Startup/Shutdown Malfunction Plan</u> Maintain records of the following: a. The Startup/Shutdown Malfunction Plan required in Table 6 Item 21; and	Maintain up-to-date plan	EU01, EU02 & PCE01-PCE04	Env-A 906	Yes

**Table 7 - Recordkeeping Requirements**

Item #	Requirement	Duration/Frequency	Applicable Unit	Regulatory Basis	Compliant
	b. Records of all data required to be recorded in accordance with the Startup/Shutdown Malfunction Plan.	As specified in the plan			Yes
14	<u>CEMS &amp; COMS Monitoring and QA/QC Plan</u> Maintain the CEMS & COMS Monitoring and QA/QC Plan as required in Table 6 Items 12 and 14, including all data required to be recorded in accordance with the plan.	Maintain up-to-date plans	Facility-wide	Env-A 808	Yes
15	<u>Regulated Toxic Air Pollutants</u> Maintain records documenting compliance with Env-A 1400.	Maintain up-to-date data	Facility-wide	Env-A 902.01	Yes
16	<u>Permit Deviation Recordkeeping Requirements</u> Record permit deviations in accordance with Condition XVI.	As noted in Condition XVI	Facility-wide	Env-A 911.03	Yes

**VIII. Compliance with Reporting Requirements**

Table 8 below, taken from Permit TP-0054, lists the reporting requirements for the facility, and any deficiencies noted during the evaluation.

**Table 8 - Reporting Requirements**

Item #	Requirement	Frequency	Applicable Unit	Regulatory Basis	Compliant
1	<u>Annual Emissions Report</u> Submit an annual emissions report which shall include the following information: a. Actual calendar year emissions from each emission unit of NOx, CO, SO <sub>2</sub> , TSP, PM10, and VOCs, HAPs (speciated by individual HAP), and RTAPs (speciated by individual RTAP); b. The methods used in calculating such emissions in accordance with Env-A 705.02, <i>Determination of Actual Emissions for Use in Calculating Emission-Based Fees</i> ; and c. All monthly and 12-month rolling information recorded in accordance with Table 7 Items 3 and 6.	Annually (received by the Division no later than April 15th of the following year)	EU01, EU02 & EU03	Env-A 907.01	Yes
<p><b>Finding:</b> <i>Burgess began operating in October 2013. Burgess submitted its 2013 annual emissions report on April 15, 2014. There was a reporting discrepancy in NOx emissions. See Notice of Findings DES issued to Burgess on December 30, 2014. See Burgess' February 27, 2015 response to the Notice of Findings.</i></p>					

**Table 8 - Reporting Requirements**

Item #	Requirement	Frequency	Applicable Unit	Regulatory Basis	Compliant
2	<p><u>NSPS and MACT Notification Requirements</u>                      Submit notification of the initial startup, which shall include:</p> <ul style="list-style-type: none"> <li>a. The date construction is commenced, postmarked no later than 30 days after such date;</li> <li>b. The actual date of initial startup postmarked within 15 days of such date, which shall also include the following information:                             <ul style="list-style-type: none"> <li>1. The design heat input capacity of the boiler;</li> <li>2. Identification of fuels to be combusted in the boiler;</li> <li>3. A copy of the federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels; and</li> <li>4. The annual capacity factor at which the Owner or Operator anticipates operating the facility based on all fuels combined and each individual fuel.</li> </ul> </li> <li>c. Notification of the date upon which demonstration of the continuous monitoring systems performance commences in accordance with 40 CFR 60.13(c), postmarked not less than 30 days prior to such date.</li> </ul>	As specified	EU01	40 CFR 60.7(a) & 40 CFR 60.49b(a) & 40 CFR 63 Subpart B (Case-by-Case MACT)	No
<p><b>Findings:</b> See Notice of Findings DES issued to Burgess on December 30, 2014. See Burgess' February 27, 2015 response to the Notice of Findings.</p>					
3	<p><u>Opacity Compliance Determination During Performance Tests</u>                      If applicable, submit a notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by 40 CFR 60.8 instead of Method 9 observation data for the Boiler.</p>	Postmarked not less than 30 days prior to the date of the performance test	EU01	40 CFR 60.11(e)(5)	Yes
<p><b>Finding:</b> In Burgess' performance test protocol, submitted to DES on October 4, 2013 and again on May 19, 2014, the facility indicated that it would use its COMS rather than Method 9 to comply with the applicable standards during the performance test.</p>					



**Table 8 - Reporting Requirements**

Item #	Requirement	Frequency	Applicable Unit	Regulatory Basis	Compliant
4	<p><u>VOC Emission Statements Reporting Requirements</u>                      If the actual annual VOC emissions from all permitted devices located at the Facility are greater than or equal to 10 tpy, then include the following information with the annual emission report:</p> <p>a. Facility information, including:</p> <ol style="list-style-type: none"> <li>1. Source name;</li> <li>2. Standard Industrial Classification (SIC) code;</li> <li>3. North American Industrial Classification System (NAICS) code;</li> <li>4. Physical and mailing addresses; and</li> </ol> <p>b. A breakdown of VOC emissions reported pursuant to Table 8 Item 1 by month; and</p> <p>c. All data recorded pursuant to Table 7 Item 9.</p>	Annually (received by the Division no later than April 15th of the following year)	EU01 & EU03	Env-A 908.03	<b>Not Applicable</b>
<p><b>Finding: Actual VOC emissions were less than 10 tons per year during the evaluation period.</b></p>					
5	<p><u>NOx Emission Statements Reporting Requirements</u>                      If the actual annual NOx emissions from all permitted devices located at the Facility are greater than or equal to 10 tpy, then include the following information with the annual emission report:</p> <p>a. A breakdown of NOx emissions reported pursuant to Table 8 Item 1 by month; and</p> <p>b. All data recorded in accordance with Table 7 Item 10.</p>	Annually (received by the Division no later than April 15th of the following year)	EU01 & EU03	Env-A 909.03	<b>No</b>
<p><b>Findings: Burgess is subject to this requirement. In its 2014 NOx Emission Statement, Burgess did not include a monthly breakdown of NOx emissions, as required by Table 8, Item # 5a and did not include all the information required by Table 8, Item # 5b. In the 2015 NOx Emission Statement, Burgess now meets the requirements.</b></p>					
6	<p><u>NSPS Performance Test Results for PM</u>                      The Owner or Operator shall submit the PM emissions test data from the initial performance test and from the performance evaluation of the COMS using the applicable performance specifications in 40 CFR 60 Appendix B to EPA and the Division.</p>	Within 60 days of completing the performance tests	EU01	40 CFR 60.49b(b) & 40 CFR 60.8(a)	<b>Yes</b>
<p><b>Finding: Burgess conducted performance testing for PM and the COMS on June 9-13, 2014. Burgess' test report was due by August 12, 2014, and was received by DES on August 11, 2014. Burgess' COMS RATA was conducted on June 9-13, 2014. A final RATA report was due by July 28, 2014. DES received that report on July 25, 2014. Results indicated that the CEM system meets the relative accuracy requirements for the RATA, and that the measured emissions comply with the compliance limits specified in the Permit. On March 16, 2015, DES sent a letter to Burgess deeming the report technically acceptable.</b></p>					
7	<p><u>NSPS Semi-annual Excess Emissions Reports for Opacity</u>                      Submit excess emissions reports for any excess emissions that occurred during the reporting period. For the purpose of 40 CFR 60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the NSPS standard of 20%.</p>	Postmarked within 30 days of the end of the 6-month reporting period	EU01	40 CFR 60.49b(h) & (w)	<b>Yes</b>

**Table 8 - Reporting Requirements**

Item #	Requirement	Frequency	Applicable Unit	Regulatory Basis	Compliant
<p><b>Finding:</b> <i>Burgess has not had any instances in which the average opacity exceeded 20% for a 6-minute period. Since there have been no exceedances, Burgess has not been required to file any reports.</i></p>					
8	<p><u>Quarterly Emission Reports</u>                      The Owner or Operator shall submit to the Division quarterly reports containing the following information:</p> <ul style="list-style-type: none"> <li>a. The information specified in 40 CFR 60.7(c);</li> <li>b. Excess emission data recorded by the CEM system, including the following:                             <ul style="list-style-type: none"> <li>1. The date and time of the beginning and ending of each of excess emissions;</li> <li>2. The magnitude of each excess emission;</li> <li>3. The specific cause of the excess emission; and</li> <li>4. The corrective action taken;</li> </ul> </li> <li>c. If no excess emissions have occurred, a statement to that effect;</li> <li>d. For gaseous emission monitoring systems, the daily averages of the measurements made and emissions rates calculated.</li> <li>e. A statement as to whether the CEM system was inoperative, repaired, or adjusted during the reporting period;</li> <li>f. If the CEM system was inoperative, repaired, or adjusted during the reporting period, the following information:                             <ul style="list-style-type: none"> <li>1. The date and time of the beginning and ending of each period when the CEM was inoperative;</li> <li>2. The reason why the CEM was not operating;</li> <li>3. The corrective action taken; and</li> <li>4. The percent data availability calculated in accordance with Env-A 808.10 for each flow, diluent, or pollutant analyzer in the CEM system;</li> </ul> </li> <li>g. For all “out of control periods” as defined in Env-A 808.01(g) and 40 CFR 60, Appendix F, the following information:                             <ul style="list-style-type: none"> <li>1. The times beginning and ending the out of control period;</li> <li>2. The reason for the out of control period; and</li> <li>3. The corrective action taken;</li> </ul> </li> <li>h. The date and time beginning and ending each period when the source of emissions which the CEM system is monitoring was not operating;</li> <li>i. When calibration gas is used, the following information:                             <ul style="list-style-type: none"> <li>1. Calibration gas concentration;</li> <li>2. If a gas bottle was changed during the quarter:</li> </ul> </li> </ul>	Within 30 calendar days after the end of the calendar quarter	EU01	Env-A 808.11, Env-A 808.12	Yes

**Table 8 - Reporting Requirements**

Item #	Requirement	Frequency	Applicable Unit	Regulatory Basis	Compliant
	i. The date of the calibration gas bottle change; ii. The gas bottle concentration before the change; iii. The gas bottle concentration after the change; and 3. The expiration date for all calibration gas bottles used.				
<p><b>Findings:</b> <i>Burgess has submitted quarterly excess emission reports starting with the second quarter in 2014. Burgess started sending the reports electronically with the third quarter 2014 excess emissions report. All reports have been received timely.</i></p>					
9	<p><u>Option to Use Electronic Reporting for NSPS Subpart Db</u>                      The Owner or Operator of an affected facility may submit electronic quarterly reports for opacity in lieu of submitting the written reports required under 40 CFR 60.49b(h) (i.e., Table 8 Item 7 above). The format of each quarterly electronic report shall be coordinated with the Division. The electronic report(s) shall be accompanied by a certification statement from the Owner or Operator, indicating whether compliance with the applicable emission standards and minimum data requirements specified in this permit was achieved during the reporting period.</p>	Within 30 days of the end of the calendar quarter	EU01	40 CFR 60.49b(v)	Yes
<p><b>Finding:</b> <i>Burgess has been submitting its quarterly reports electronically.</i></p>					
10	<p><u>Annual Compliance Certification</u>                      Submit an annual compliance certification to the Division and USEPA which includes the following information for each and every requirement and condition of the facilities effective permit(s):</p> <ol style="list-style-type: none"> <li>The particular permit condition or item number that references each requirement, and a brief summary of the requirement;</li> <li>The compliance status with respect to the requirement and whether during the year compliance with the requirement was continuous, intermittent, not achieved, or not applicable;</li> <li>The method(s) used to determine compliance, such as monitoring, record keeping, or test methods;</li> <li>The frequency, either continuous or intermittent, of the method(s) used to determine compliance;</li> <li>If compliance was not continuous, a description of each permit deviation; and</li> <li>Any additional information required in order for the Division to determine the compliance status of the source.</li> </ol>	No later than April 15 of the year following the calendar year covered by the report	Facility-wide	Env-A 907.04(a)	Yes

**Table 8 - Reporting Requirements**

Item #	Requirement	Frequency	Applicable Unit	Regulatory Basis	Compliant
11	<u>Semi-annual Permit Deviation and Monitoring Report</u> Submit a semi-annual permit deviation and monitoring report, which contains: a. Summaries of the pertinent data that demonstrate the source's compliance status with all monitoring and testing requirements contained in this permit; b. Evidence that the required data is being recorded and maintained; and c. A summary of all permit deviations recorded pursuant to Condition XVI of this Permit that occurred during the reporting period.	Semi-annually by July 31st and January 31st of each calendar year.	Facility-wide	Env-A 907.04(b) & Env-A 911.05	Yes
<b>Findings: All reports have been received timely.</b>					
12	<u>CEMS &amp; COMS Monitoring and QA/QC Plan Updates</u> Submit either a: a. Written certification that the Owner or Operator will continue to implement the existing QA/QC plan; or b. Written description of any changes to the plan, including the reason for the changes.	Annually	EU01	Env-A 808.06(a)(6)	Yes
<b>Finding: Burgess submitted its first QA/QC plan to DES on August 1, 2014. The most recent annual review of the QA/QC plan was submitted to DES on April 15, 2016.</b>					
13	<u>Pollution Control Equipment Operating Plan Updates</u> Submit either a: a. Written certification that the Owner or Operator will continue to implement the existing Pollution Control Equipment Operating Plan; or b. Written description of any changes to the plan, including the reason for the changes.	Annually	EU01, EU02 & PCE01-PCE04	Env-A 910	Yes
<b>Finding: Burgess submitted a Pollution Control Equipment Operating Plan for each piece of control equipment to DES on October 23, 2013. Since then there have been no changes to the Plan.</b>					
14	<u>Pollution Control Equipment Operation Report</u> Submit a report of data required to be reported by the Pollution Control Equipment Operating Plan in accordance with Table 6 Item 20.m.	Annually	EU01, EU02 & PCE01-PCE04	Env-A 910	No
<b>Findings: On April 18, 2016, DES received from Burgess an Air Pollution Control Equipment Operation Report covering calendar year 2015. Burgess did not submit to DES an Air Pollution Control Equipment Operation Report covering calendar year 2014.</b>					

<b>Table 8 - Reporting Requirements</b>					
<b>Item #</b>	<b>Requirement</b>	<b>Frequency</b>	<b>Applicable Unit</b>	<b>Regulatory Basis</b>	<b>Compliant</b>
15	<u>Startup/Shutdown Malfunction Plan Updates</u> Submit either a: a. Written certification that the Owner or Operator will continue to implement the existing Startup/Shutdown Malfunction Plan; or b. Written description of any changes to the plan, including the reason for the changes.	Annually	EU01, EU02 & PCE01-PCE04	Env-A 618 Env-A 619 & 40 CFR 63 Subpart B (Case-by-Case MACT)	<b>Yes</b>
<i><b>Finding: Burgess submitted a Startup/Shutdown Malfunction Plan to DES on October 24, 2014. Since then there have been no changes to the Plan.</b></i>					
16	<u>Permit Deviation Reporting Requirements</u> Report permit deviations in accordance with Condition XVI.	As noted in Condition XVI	Facility-wide	Env-A 911.04	<b>Yes</b>
17	<u>Emission Based Fees</u> Pay emission-based fees in accordance with Condition XIX.	Annually (received by the Division no later than April 15th of the following year)	EU01, EU02 & EU03	Env-A 700	<b>Yes</b>

**IX. Permit Deviation Reporting Requirements**

Burgess is aware of the recordkeeping and reporting requirements for permit deviations. During the evaluation period, Burgess has reported permit deviations, as follows:

Burgess reported in its Semi-Annual Permit Deviation and Monitoring Report for the period January 1, 2014 through June 30, 2014 that it had three permit deviations.

- Burgess was unable to conduct stack emissions testing for PM, SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>, beryllium, HCl, and mercury within 180 days of initial startup due to operational problems. The stack test, which was due to be completed on April 23, 2014, was conducted on June 10-11, 2014.
- Burgess was unable to conduct CEMS/COMSs Certification tests within 180 days of initial startup due to operational problems. The CEMS/COMS Certification tests, which were due to be completed on April 23, 2014, were conducted on June 13, 2014.
- Burgess did not submit the CEMS/COMS QA/QC Plan within 45 days of completing the performance tests. The QA/QC Plan, which was due to be submitted on July 28, 2014, was submitted to DES on July 31, 2014.

DES reviewed these deviations and no further action is required.

Burgess reported in its Semi-Annual Permit Deviation and Monitoring Report for the period July 1, 2014 through December 31, 2014 that it had two permit deviations.

- Burgess reported that, at various times during this period, the boiler was periodically operated at heat input capacity less than 654 MMBtu/hr outside of startup or shutdown periods. This was often the result of power export restrictions imposed by ISO-New England and/or normal variations in heat input. In all instances there were no exceedances of emissions limits.
- Burgess reported that, at various times during this period, the boiler was periodically operated at heat capacity greater than 1,013 MMBtu/hr. Although there is not a permit condition that specifies this as an operating limitation, Table 2 of the Permit indicates 1,013 MMBtu/hr as the boiler's maximum design gross heat input capacity.

DES reviewed these deviations and no further action is required.

Burgess reported in its Semi-Annual Permit Deviation and Monitoring Report for the period January 1, 2015 through June 30, 2015 that it had two permit deviations.

- Burgess reported that, at various times during this period, the boiler was periodically operated at heat input capacity less than 654 MMBtu/hr outside of startup or shutdown periods. This was often the result of power export restrictions imposed by ISO-New England and/or normal variations in heat input. In all instances there were no exceedances of emissions limits.
- Burgess reported that, at various times during this period, the boiler was periodically operated at heat capacity greater than 1,013 MMBtu/hr. Although there is not a permit condition that specifies this as an operating limitation, Table 2 of the Permit indicates 1,013 MMBtu/hr as the boiler's maximum design gross heat input capacity.

DES reviewed these deviations and no further action is required.

Burgess reported in its Semi-Annual Permit Deviation and Monitoring Report for the period July 1, 2015 through December 31, 2015 that it had three permit deviations.

- Burgess reported that, at various times during this period, the boiler was periodically operated at heat input capacity less than 654 MMBtu/hr outside of startup or shutdown periods. This was often the result of power export restrictions imposed by ISO-New England and/or normal variations in heat input. In all instances there were no exceedances of emissions limits.
- Burgess reported that, at various times during this period, the boiler was periodically operated at heat capacity greater than 1,013 MMBtu/hr. Although there is not a permit condition that specifies this as an operating limitation, Table 2 of the Permit indicates 1,013 MMBtu/hr as the boiler's maximum design gross heat input capacity.
- Burgess reported that the O<sub>2</sub> moisture monitor was out of certification compliance on September 24, 2015 when the wet O<sub>2</sub> interface card was changed. A moisture RATA could not be done until after Burgess' load limit was lifted on November 27, 2015. The moisture RATA should have been done by October 24, 2015. The RATA was done 39

days late. Burgess notified DES by telephone on October 5, 2015 and by email on October 6, 2015.

DES reviewed these deviations and no further action is required.

During the period January 1, 2015 to present, Burgess reported ten permit deviations, as follows:

1. On January 30, 2015, Burgess reported to DES that on January 22, 2015, the CEMS indicated average CO emissions over the course of the day were 0.088 lb/MMBtu of heat input for the calendar day resulting in the daily average CO emission rate to be above the established permit limit of 0.075 lb/MMBtu. Based on the total heat input for the day, the total excess CO emissions above that allowed by the facility's permit was 215 pounds. This permit deviation was submitted to DES' Enforcement Section for follow up. DES Enforcement is currently reviewing this deviation to determine what further action is required.
2. On February 12, 2015, Burgess reported to DES that on January 29, 2015 the opacity from the boiler exceeded 10% for 34 6-minutes averages and February 2, 2015 the opacity from the boiler exceeded 10% for 14 6-minutes averages. There were no excess emissions, just erroneous readings. DES reviewed this deviation and no further action is required.
3. On February 17, 2015, Burgess reported to DES that on February 2, 2015 the CEMS indicated average CO emissions over the course of the day were 0.091 lb/MMBtu of heat input for the calendar day resulting in the daily average CO emission rate to be above the established permit limit of 0.075 lb/MMBtu. Based on total heat input for the day, the total excess emissions above that allowed by the permit was 320 pounds. This permit deviation was submitted to DES' Enforcement Section for follow up. DES Enforcement is currently reviewing this deviation to determine what further action is required.
4. On February 17, 2015, Burgess reported to DES that on February 3, 2015 the CEMS indicated average CO emissions over the course of the day were 0.115 lb/MMBtu of heat input for the calendar day resulting in the daily average CO emission rate to be above the established permit limit of 0.075 lb/MMBtu. Based on total heat input for the day, the total excess emissions above that allowed by the permit was 825 pounds. This permit deviation was submitted to DES' Enforcement Section for follow up. DES Enforcement is currently reviewing this deviation to determine what further action is required.
5. On February 17, 2015, Burgess reported to DES that on February 4, 2015 the CEMS indicated average CO emissions over the course of the day were 0.091 lb/MMBtu of heat input for the calendar day resulting in the daily average CO emission rate to be above the established permit limit of 0.075 lb/MMBtu. Based on total heat input for the day, the total excess emissions above that allowed by the permit was 144 pounds. This permit deviation was submitted to DES' Enforcement Section for follow up. DES

Enforcement is currently reviewing this deviation to determine what further action is required.

6. On February 20, 2015, Burgess reported to DES that on February 6, 2015 the CEMS indicated average CO emissions over the course of the day were 0.116 lb/MMBtu of heat input for the calendar day resulting in the daily average CO emission rate to be above the established permit limit of 0.075 lb/MMBtu. Based on total heat input for the day, the total excess emissions above that allowed by the permit was 872 pounds. This permit deviation was submitted to DES' Enforcement Section for follow up. DES Enforcement is currently reviewing this deviation to determine what further action is required.
7. On February 20, 2015, Burgess reported to DES that on February 7, 2015 the CEMS indicated average CO emissions over the course of the day were 0.081 lb/MMBtu of heat input for the calendar day resulting in the daily average CO emission rate to be above the established permit limit of 0.075 lb/MMBtu. Based on total heat input for the day, the total excess emissions above that allowed by the permit was 82 pounds. This permit deviation was submitted to DES' Enforcement Section for follow up. DES Enforcement is currently reviewing this deviation to determine what further action is required.
8. On March 9, 2015, Burgess reported to DES that on February 24, 2015 the CEMS indicated average CO emissions over the course of the day were 0.098 lb/MMBtu of heat input for the calendar day resulting in the daily average CO emission rate to be above the established permit limit of 0.075 lb/MMBtu. Based on total heat input for the day, the total excess emissions above that allowed by the permit was 582 pounds. This permit deviation was submitted to DES' Enforcement Section for follow up. DES Enforcement is currently reviewing this deviation to determine what further action is required.
9. On May 5, 2015, Burgess reported to DES that on April 24, 2015 the CEMS indicated the 30 day rolling average NOx emissions rate of 0.061 lb/MMBtu, which is above the established permit limit of 0.060 lb/MMBtu. Based on the total heat input for the day, the total excess emissions above that allowed by the facility's permit was 20 pounds. DES reviewed this deviation and no further action is required.
10. On June 19, 2015, Burgess reported to DES that on June 5, 2015, during the 9:00 am hour, the COMS registered six, 6-minute average opacity permit deviations of 31.1%, 65.3%, 61.5%, 65.4%, 48.5%, and 16.1%. These were above the 10% opacity limit. DES reviewed this deviation and no further action is required.



**X. Other Findings**

Burgess has a Phase II Acid Rain Permit, AR-0005.

In accordance with the Permit, Burgess is not allocated any SO<sub>2</sub> allowances pursuant to the Federal Acid Rain program. Burgess holds sufficient allowances to cover SO<sub>2</sub> emissions from the boiler.

**XI. Enforcement History and Status**

On December 30, 2014, DES issued a Notice of Findings to Burgess. On February 27, 2015, Burgess responded to the Notice of Findings. Effective May 5, 2016, an Administrative Fine by Consent was entered into by and between DES and Burgess.

**XII. Compliance Assistance, Recommendations and Corrective Actions**

Based on the findings of this compliance evaluation, DES recommends the following actions to bring the facility into compliance with the identified deficiencies and future reporting requirements:

- a) Operate the EU01 such that the 30-day rolling average NO<sub>x</sub> emissions stay below the limit of 0.060 lb/MMBtu, as required by Table 5, Item #1 of the Permit.
- b) Operate the EU01 such that the calendar day average CO emissions stay below the limit of 0.075 lb/MMBtu, as required by Table 5, Item #3 of the Permit.
- c) Submit QA/QC annual reviews in a timely manner, pursuant to Table 6, Item #14 of the Permit.
- d) In its NO<sub>x</sub> Emission Statements, submit all of the required data for EU01 and EU03, pursuant to Table 8, Item #5 of the Permit.
- e) Submit a Pollution Control Equipment Report on an annual basis.

Report Prepared By	Alan H. Moulton
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Signed	