

The State of New Hampshire
Department of Environmental Services

Thomas S. Burack, Commissioner

*Celebrating 25 Years of Protecting
New Hampshire's Environment*



November 4, 2013

Mr. Charles E. Grecco
Director
Berlin Station, LLC
One Cate Street
Portsmouth, NH 03801

**Re: Reissuance of Temporary Permit TP-0054
Burgess BioPower, One Community Street, Berlin, NH
Facility ID # 3300790137; Application # 13-0228**

Dear Mr. Grecco:

The New Hampshire Department of Environmental Services, Air Resources Division (DES) has reviewed the request submitted by Berlin Station, LLC on October 28, 2013, to reissue Temporary Permit TP-0054 for the Burgess BioPower facility located at One Community Street, Berlin, New Hampshire. The Temporary Permit allowed for the construction of a Biomass-fired Electric Generating Facility. This Temporary Permit currently expires on January 31, 2014. According to your October 28th letter, construction of the facility is expected to be completed prior to the permit expiration date. However, the required compliance testing will not be completed prior to the expiration date of the permit.

New Hampshire Code of Administrative Rules Env-A 607.09, *Permit Reissuance* lists the criteria under which DES may reissue a Temporary Permit. Under Env-A 607.09(a)(1), a Temporary Permit may be reissued if "*actual construction has been completed by the expiration date, but any required compliance testing has not been completed.*". Therefore, DES hereby approves your request and reissues the Temporary Permit for a period of one year. The reissued Temporary Permit will expire on January 31, 2015.

If you have any questions concerning this matter, please contact Padmaja Baru of the Permitting and Environmental Health Bureau at (603) 271-0905 or via e-mail at padmaja.baru@des.nh.gov.

Sincerely,

Craig A. Wright
Director
Air Resources Division

caw/pb

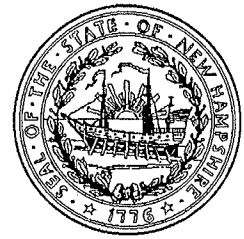
Enclosures: Temporary Permit TP-0054

By certified mail #7011 1570 0003 6777 8990

cc: Donald Dahl, USEPA Region 1 (via e-mail)
Ralph Perron, USFS (via e-mail)
Debra Patrick, City Clerk - City of Berlin
Jeff Hayes, Executive Director - North Country Council, Inc.
Carol T. Porter, Town Clerk - Town of Gorham
Thomas S. Burack, Chairman - NH Site Evaluation Committee
Dammon Frecker, Managing Director-Development - Cate Street Capital (via e-mail)

www.des.nh.gov

29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3503 • TDD Access: Relay NH 1-800-735-2964



**Temporary Permit
Prevention of Significant Deterioration (PSD)
And
Non-Attainment New Source Review (NSR) Permit**

Permit No: TP-0054

Date Issued: July 26, 2010

Date Reissued: November 18, 2011, November 30, 2012 & November 4, 2013

This certifies that:

**Berlin Station, LLC
One Cate Street
Portsmouth, NH 03801**

has been granted a Temporary Permit, PSD Permit, and NSR Permit for a:

70 Megawatt Biomass-fired Electric Generating Facility

at the following facility and location:

**Burgess BioPower
One Community Street
Berlin, NH 03570**

Facility ID No: 3300790137

Application No: 09-0285 received December 16, 2009 - Initial Temporary, PSD, and NSR Permit

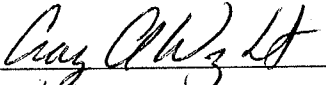
Application No: 11-0151 received October 28, 2011 - Request to change ownership and reissue
Temporary Permit

Application No: 12-0175 received October 2, 2012 - Request to reissue Temporary Permit

Application No: 13-0228 received October 28, 2013 - Request to reissue Temporary Permit

which includes devices that emit air pollutants into the ambient air as set forth in the permit application referenced above which was filed with the New Hampshire Department of Environmental Services, Air Resources Division (Division) in accordance with RSA 125-C of the New Hampshire Laws. Request for permit reissuance is due to the Division at least 90 days prior to expiration of this permit and must be accompanied by the appropriate permit application forms.

This permit is valid upon issuance and expires on **January 31, 2015**.



Director
Air Resources Division

TABLE OF CONTENTS

I.	Facility Description.....	4
II.	Permitted Activities.....	5
III.	Significant Activities Identification	6
IV.	Stack Criteria.....	6
V.	Pollution Control Equipment/Method Identification	7
VI.	Operating and Emission Limitations.....	7
VII.	Monitoring and Testing Requirements.....	13
VIII.	Recordkeeping Requirements	23
IX.	Reporting Requirements.....	27
X.	Temporary Permit Reissuance Procedures.....	32
XI.	Timely Application	32
XII.	Permit Expiration	32
XIII.	Application Shield.....	32
XIV.	Permit Amendments.....	33
XV.	Temporary/NSR/PSD Permit Suspension, Revocation or Nullification.....	34
XVI.	Permit Deviation Recordkeeping and Reporting Requirements	34
XVII.	Inspection and Entry.....	36
XVIII.	Reports	36
XIX.	Emission-Based Fee Requirements.....	36
XX.	Emission Offset Requirements.....	37

Abbreviations and Acronyms			
AAL	Ambient Air Limit	lb	pound
acf	actual cubic foot	MACT	Maximum Achievable Control Technology
ags	above ground surface	MM	million
ASTM	American Society of Testing and Materials	MW	megawatt
BACT	Best Available Control Technology	NAAQS	National Ambient Air Quality Standard
Btu	British thermal units	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAA	Clean Air Act	NG	Natural Gas
CAM	Compliance Assurance Monitoring	NHDES	New Hampshire Department of Environmental Services
CEMS	Continuous Emission Monitoring System	NO _x	Oxides of Nitrogen
COMS	Continuous Opacity Monitoring System	NSPS	New Source Performance Standard
cfm	cubic feet per minute	NSR	New Source Review
CFR	Code of Federal Regulations	PM ₁₀	Particulate Matter < 10 microns
CO	Carbon Monoxide	PM _{2.5}	Particulate Matter < 2.5 microns
DER	Discrete Emission Reduction	ppm	parts per million
dscf	dry standard cubic feet	PSD	Prevention of Significant Deterioration
dscm	dry standard cubic meters	psi	pounds per square inch
Env-A	New Hampshire Code of Administrative Rules – Air Resources Division	PTE	Potential to Emit
ERC	Emission Reduction Credit	RACT	Reasonably Available Control Technology
EG	Emergency Generator	RSA	New Hampshire Revised Statutes Annotated
ft	foot or feet	RTAP	Regulated Toxic Air Pollutant
ft ³	cubic feet	scf	standard cubic foot
gal	gallon	SIP	State Implementation Plan
HAP	Hazardous Air Pollutant	SO ₂	Sulfur Dioxide
HCL	Hydrochloric Acid	SSMP	Startup, Shutdown, and Malfunction Plan
Hp	horsepower	TSP	Total Suspended Particulate
hr	hour	tpy	tons per consecutive 12-month period
kW	kilowatt	USEPA	United States Environmental Protection Agency
LAER	Lowest Achievable Emission Rate	VOC	Volatile Organic Compound

I. Facility Description

Burgess BioPower (Burgess) is proposing to convert and upgrade 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 is considered new construction, not a modification or reconstruction of the former Fraser Pulp Mill. Burgess (the Facility) will use whole tree wood chips and other low-grade clean wood as fuel, and will be capable of generating nominally 70 megawatts (MW) of electric power (gross output).

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

Burgess will be a major stationary source of nitrogen oxides (NO_x) emissions, with potential NO_x emissions greater than 100 tons per year. NO_x is a precursor of ozone, and Coos County is designated as being in attainment for ozone; however, Coos County is within the New Hampshire portion of the Northeast Ozone Transport Region. Therefore, the proposed facility will be subject to state non-attainment New Source Review (NSR) (Env-A 618) for ozone, which requires the implementation of the Lowest Achievable Emission Rate (LAER) and offsets for its NO_x emissions.

As a major stationary source located in an attainment area, Burgess will also be subject to the applicable Prevention of Significant Deterioration (PSD) of air quality permit requirements for criteria pollutants other than NO_x. The Division has implemented the PSD Program permitting requirements (Env-A 619) to determine if a new major stationary source will cause or contribute to significant deterioration of air quality in the state. The PSD requirements include the completion of an air dispersion modeling analysis to demonstrate that the Project will not cause or contribute to an exceedance of the National Ambient Air Quality Standards (NAAQS), and that the maximum increases in pollutant concentrations over the existing baseline do not exceed the allowable PSD increments. The PSD program requires the implementation of Best Available Control Technology (BACT) for each regulated pollutant with potential emissions above the significance thresholds. The PSD pollutants for this facility are particulate matter (including Total Suspended Particulate (TSP), Particulate Matter less than 10 microns (PM₁₀), and Particulate Matter less than 2.5 microns (PM_{2.5})), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfuric acid mist (H₂SO₄), and beryllium.

The PSD program also requires additional impact analyses including:

1. Analysis of impacts on soils and vegetation, local visibility and commercial/residential/industrial growth and construction associated with the source; and
2. Analysis of impacts on Class I areas (the Great Gulf Wilderness Area approximately 18 kilometers to the south, and the Presidential Range Dry River Wilderness Area approximately 26 kilometers to the south).

Burgess must also comply with the applicable subparts of the federal New Source Performance Standards (NSPS). Burgess will be a major source of hazardous air pollutant (HAP) emissions and, therefore, will require application of Maximum Available Control Technology (MACT) for HAPs pursuant to the federal National Emission Standards for Hazardous Air Pollutants (NESHAPS).

Table 1 below shows the major source applicability determination for the NSR and PSD programs for the proposed facility:

Table 1 – PSD and NSR Applicability					
Pollutant	Projected Project Emissions (tpy)	PSD Major Source Threshold (tpy)	PSD Significance Threshold (tpy)	NSR Major Source Threshold (tpy)	Triggers NSR/PSD?
PM/PM ₁₀ /PM _{2.5} ¹	43.3/42.7/42.3	250	25/15/10 ²	N/A	PSD
SO ₂	48.7	250	40	N/A	PSD
NO _x	245	250	40 ³	100	NSR/PSD
CO	308	250	100	N/A	PSD
VOCs	41.1	N/A	N/A	50	No ⁴
H ₂ SO ₄	8.1		7		PSD
Lead	0.2		0.6		No
Beryllium	0.0045		0.0004		PSD
Mercury	0.012		0.1		No
Vinyl Chloride	0.08		1		No

II. Permitted Activities

The Owner or Operator is authorized to construct and operate a 70 MW biomass power plant comprised of the devices identified in Table 2, pollution control equipment identified in Table 4, and all associated ancillary equipment within the terms and conditions of this Permit.

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- ¹ All references to “particulate matter” throughout this permit mean filterable portion only, unless otherwise specified.
- ² The PSD major significance threshold for PM_{2.5} is 10 tpy of direct PM_{2.5} emissions; 40 tpy of SO₂ emissions; or 40 tpy of NO_x emissions unless demonstrated not to be a PM_{2.5} precursor under paragraph (b)(50) of 40 CFR 52.21.
- ³ The PSD pollutant is NO₂
- ⁴ While the proposed VOC increase is above the 40 tpy significant modification threshold, Burgess is a minor source of VOCs under the NSR program (VOC emissions are less than 50 tpy) and, therefore, does not trigger NSR for this project.

III. Significant Activities Identification

The activities identified in Table 2 are subject to and regulated by this Permit:

Table 2 - Significant Activity Identification			
Emission Unit ID	Device	Manufacturer, Model, Serial Number	Maximum Design Gross Heat Input Capacity and Permitted Fuel Type(s) ⁵
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

IV. Stack Criteria

The following devices at the Facility shall have exhaust stacks that discharge vertically, without obstruction, and meet the criteria in Table 3 below:

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

⁵ The hourly fuel rates presented in Table 2 are calculated assuming a heat content of 4,500 Btu/lb for wood at 50% moisture and 140,000 Btu/gal for No.2 and diesel fuel oil.

V. Pollution Control Equipment/Method Identification

With the exception of PCE03, sorbent injection, 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 SO₂ and H₂SO₄ emission limitations.

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

VI. Operating and Emission Limitations

The Owner or Operator shall be subject to the operating and emission limitations identified in Table 5:

Table 5 - Operating and Emission Limitations			
Item #	Requirement	Applicable Unit	Regulatory Basis
1	<u>Emission Standard for NO_x</u> NO _x emissions shall be limited to 0.060 lb/MMBtu of heat input based on a 30-day rolling average ⁶ .	EU01	Env-A 618 (LAER) Env-A 619 (BACT) ⁷ <i>More Stringent than</i> Env-A 1211.03

⁶ Compliance with NO_x, CO, and ammonia slip emission standards will be determined using CEMS. Compliance with other emission standards (PM, PM₁₀, PM_{2.5}, SO₂, Beryllium, HCl, H₂SO₄, Mercury, and cooling tower drift (PM)) shall be determined using stack testing. The averaging time for pollutants for which compliance is determined using stack testing shall be determined by the approved test method.

⁷ The emission limitation of 0.060 lb/MMBtu established through LAER review for NO_x also satisfies the BACT limit for NO₂.

Table 5 - Operating and Emission Limitations

Item #	Requirement	Applicable Unit	Regulatory Basis
2	<u>Emission Standard for PM⁸</u> PM, PM ₁₀ , PM _{2.5} 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
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)
4	<u>Emission Standard for SO₂</u> SO ₂ emissions shall be limited to 0.012 lb/MMBtu of heat input.	EU01	Env-A 619 (BACT)
5	<u>Emission Standard for H₂SO₄</u> H ₂ SO ₄ emissions shall be limited to 0.002 lb/MMBtu of heat input.	EU01	Env-A 619 (BACT)
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)
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)
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)
9	<u>Emission Standard for Ammonia Slip</u> Ammonia slip emissions shall be limited to 10 ppmvd @ 6% oxygen (O ₂) dry volume based on a calendar day average.	EU01/ PCE02	Env-A 1400
10	<u>Operating Mode Limitation⁹</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

⁸ See footnote 1.

⁹ Emission standards in Table 5 Items 1 through 9 apply during normal operation only. They do not apply during startup or shutdown. Startup and shutdown emission standards are addressed in Table 5 Item 11.

Table 5 - Operating and Emission Limitations			
Item #	Requirement	Applicable Unit	Regulatory Basis
11	<p><u>Emission Standards for Startup & Shutdown</u> NO_x 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 & shutdown specific limits are established and incorporated into this permit pursuant to Table 6 Item 21.</p>	EU01	Env-A 618 & Env-A 619
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 <i>More stringent than</i> 40 CFR 60.44b(1)(1)
13	<p><u>Fuel Oil Startup Limitation</u> Fuel oil shall only be burned in the boiler during startup.</p>	EU01	Env-A 619
14	<p><u>Facility-wide annual Emission Standard for NO_x</u> Emissions of NO_x from the facility shall be limited to 245 tpy.</p>	Facility-wide	Env-A 618
15	<p><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.</p>	EU02	Env-A 619
16	<p><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.</p>	EU01 & EU03	Env-A 619 & 40 CFR 60.4207 (NSPS Subpart III) <i>More stringent than</i> Env-A 1604.01(a)
17	<p><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.¹⁰</p>	EU01	Env-A 619 <i>More stringent than</i> 40 CFR 60.43b(f) (NSPS Subpart Db) & Env-A 2002.02

¹⁰ Compliance with the visible emission standard for EU01 shall be determined using a COMS.

Table 5 - Operating and Emission Limitations			
Item #	Requirement	Applicable Unit	Regulatory Basis
18	<p><u>Activities Exempt from Visible Emission Standards</u> No more than one of the following two exemptions shall be taken at a time:</p> <p>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</p> <p>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.</p>	EU01	Env-A 2002.04(a)
19	<p><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.¹¹</p>	EU03	Env-A 2002.02
20	<p><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.</p>	EU03	Env-A 2002.04(c)
21	<p><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.</p>	EU03	Env-A 2002.08
22	<p><u>Fire Pump Operation</u> The fire pump shall only operate:</p> <p>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;</p> <p>b. During normal maintenance and testing as recommended by the manufacturer; or</p> <p>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>.</p>	EU03	Env-A 101.661
23	<p><u>Fire Pump Operation</u> Fire pump operation shall be limited to:</p> <ol style="list-style-type: none"> 100 hours for maintenance and readiness checks during any consecutive 12-month period; and 500 hours total during any consecutive 12-month period. 	EU03	<p>Env-A 618 Env-A 619 40 CFR 60.4211(e) (NSPS Subpart IIII)</p> <p><i>More stringent than Env-A 1211.01(j)(1)</i></p>

¹¹ Compliance with the visible emission standard for EU03 shall be determined using 40 CFR 60, Appendix A, Method 9, upon request by the Division.

Table 5 - Operating and Emission Limitations			
Item #	Requirement	Applicable Unit	Regulatory Basis
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
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"> a. There is a revision to the list of RTAPs lowering the AAL for any RTAP emitted from the Facility; 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); 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 d. Stack conditions (e.g. air flow rate) change. 	Facility-wide	Env-A 1400
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

Table 5 - Operating and Emission Limitations			
Item #	Requirement	Applicable Unit	Regulatory Basis
27	<p><u>Relaxation of PSD Opt-Out Requirements</u></p> <p>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)
28	<p><u>Accidental Release Program Requirements</u></p> <p>The quantities of regulated chemicals¹² 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"> Identify potential hazards which result from such releases using appropriate hazard assessment techniques; Design and maintain a safe facility; Take steps necessary to prevent releases; and Minimize the consequences of accidental releases that do occur. 	Facility-wide	CAAA 112(r)(1)
29	<p><u>Title V Permit Application</u></p> <p>Submit an application for a Title V Permit to Operate to the Division within 12 months of commencing operation.¹³</p>	Facility-wide	Env-A 609.07(a)(2)
30	<p><u>Acid Rain Permit Application</u></p> <p>Submit to the Division at least 12 months prior to commencing operation:</p> <ol style="list-style-type: none"> An application for an Acid Rain Permit; and, an application for amendment to this permit, if necessary to incorporate Acid Rain requirements. 	EU01	40 CFR 72.30(b)(2)(ii) (Acid Rain)

¹² Burgess will use 19% aqueous ammonia solution in the SCR system. Section 112(r) applies only if the concentration of ammonia is 20% or greater.

¹³ Commencing operation shall be same as "initial startup" as defined in the document *Instruction Manual for Clarification of Startup in Source Categories Affected by New Source Performance Standards* (EPA-68-01-4143), where "initial startup" is the first time steam is produced by the boiler and used to produce heat or hot water, to run process equipment, or to produce electricity, defined as the first time that the facility transmits electricity onto the grid for sale.

VII. Monitoring and Testing Requirements

The Owner or Operator shall be subject to the monitoring and testing requirements as contained in Table 6:

Table 6 - Monitoring and Testing Requirements					
Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
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
2	Particulate Matter & Opacity	Conduct stack testing for: a. PM, PM ₁₀ , PM _{2.5} 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 ¹⁴	EU01	40 CFR 60.46b(d) NSPS Subpart Db & 40 CFR 60.8 Subpart A
3	SO ₂ , H ₂ SO ₄ , Beryllium, HCl, Mercury & VOCs	Conduct stack testing for: a. SO ₂ , H ₂ SO ₄ , 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)
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

¹⁴ As defined in the document *Instruction Manual for Clarification of Startup in Source Categories Affected by New Source Performance Standards* (EPA-68-01-4143), "initial startup" is the first time steam is produced by the boiler and used to produce heat or hot water, to run process equipment, or to produce electricity.

Table 6 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
5	General Stack Testing Requirements	<p>Compliance testing shall be planned and carried out in accordance with the following schedule:</p> <p>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;</p> <p>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;</p> <p>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;</p> <p>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</p>	Initial performance test and subsequent testing	Facility-wide	Env-A 802.40 CFR 60.8 & 40 CFR 63 Subpart B (Case-by-Case MACT)
		<p>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.</p>	Initial performance tests		Env-A 704.02
6	General Stack Testing Requirements	<p><u>Operating Conditions During a Stack Test</u></p> <p>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)

Table 6 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
7	NO _x , CO, and diluent gas CEMS	<p><u>NO_x, CO, and diluent gas Continuous Emission Monitoring System</u> Install, calibrate, operate, and maintain CEMS for NO_x, CO, and diluent gas (oxygen or carbon dioxide), which shall be used to determine compliance with NO_x, CO, and emission limits established in Table 5 Items 1, 3, and 11, in accordance with the following:</p> <ul style="list-style-type: none"> a. Install, calibrate, operate, and maintain each CEMS according to 40 CFR 60 Appendix B, and the CEMS & COMS Monitoring Plan developed in accordance with Table 6 Item 12; d. Operate the CEMS in accordance with the SSMP during periods of startup, shutdown, and malfunction; e. Conduct a performance evaluation for each CEMS in accordance with the requirements of 40 CFR 63.8 and 40 CFR 60 Appendix B f. Each CEMS must complete a minimum of one cycle of operation (sampling, analysis and data recording) for each successive 15-minute period; and g. Reduce the CEMS data in accordance with 40 CFR 63.8(g)(2). 	Continuous	EU01	40 CFR 63 Subpart B (Case-by-Case MACT) 40 CFR 60.8 & Env-A 808
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"> a. Install, calibrate, operate, and maintain the CEMS according the CEMS & COMS Monitoring Plan developed in accordance with Table 6 Item 12; d. Operate the CEMS in accordance with the SSMP during periods of startup, shutdown, and malfunction; e. Conduct a performance evaluation for the CEMS in accordance with the requirements of Env-A 808.08. 	Continuous	EU01/ PCE02	Env-A 808

Table 6 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
9	Opacity COMS	<p><u>Continuous Opacity Monitoring System</u></p> <p>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"> a. Install, operate, and maintain the COMS according to of 40 CFR 60, Appendix B PS1 and the CEMS & COMS Monitoring Plan developed in accordance with Table 6 Item 12; c. Operate the COMS in accordance with the SSMP during periods of startup, shutdown, and malfunction; d. Conduct a performance evaluation of each COMS according to the requirements of 40 CFR 63.8 and 40 CFR 60, Appendix B PS1; 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 f. Reduce COMS data as specified in 40 CFR 63.8(g)(2). 	Continuously	EU01	40 CFR 60.48b(a) Appendix B & 40 CFR 63 Subpart B (Case-by-Case MACT)
10	Minimum Specifications for CEMS and COMS	<p>The Owner or Operator shall ensure that each CEMS and COMS meets the following operating requirements:</p> <ul style="list-style-type: none"> a. Each COMS shall average the opacity data to result in consecutive, non-overlapping 6-minute averages; b. Each CEMS average and record the data for each calendar hour; 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 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. 	N/A	EU01	Env-A 808.03

Table 6 - Monitoring and Testing Requirements					
Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
11	Stack Volumetric Flow	a. Install, calibrate, and maintain a stack volumetric flow measuring device according to the following requirements: <ol style="list-style-type: none"> 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 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. 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.	Continuously	EU01	Env-A 808.03(d)

Table 6 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
12	CEMS & COMS Monitoring Plan	<p>Prepare and submit to the Division a CEMS and COMS Monitoring Plan which includes the following:</p> <ul style="list-style-type: none"> a. A complete description of the emission monitoring system including, but not limited to: <ul style="list-style-type: none"> 1. The identity of the CEM system vendor, including the company name, address, and telephone number; 2. The identity of the manufacturer, model number, measurement method employed, and range of each of the major components or analyzers being used; 3. A description of the sample gas conditioning system; 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 5. A description of the data acquisition system, including sampling frequency, and data averaging methods; 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; c. An example of the data reporting format; 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; 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 f. A description of the means used to provide for short-term and long-term emissions data storage. 	Submit ¹⁵ to the Division at least 90 days prior to installation of any CEMS	EU01	Env-A 808.04

¹⁵ Unless otherwise specified, all due dates listed in the permit mean that the required submittal must be received at the Division by the deadline.

Table 6 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
13	CEM Performance Specification Testing	<p>Conduct performance specification testing for a CEM system in accordance with the following:</p> <ul style="list-style-type: none"> 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; 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; c. All performance specification testing shall be conducted within 180 days of the CEMS or COMS initial startup; 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 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. 	As specified	EU01	Env-A 808.05
14	CEMS & COMS QA/QC Plan	<p>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:</p> <ul style="list-style-type: none"> a. Review the QA/QC plan and all data generated by its implementation at least once each year; b. Revise or update the QA/QC plan, as necessary, based on the results of the annual review, by: <ul style="list-style-type: none"> 1. Documenting any changes made to the CEM or changes to any information provided in the monitoring plan; 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; 3. Describing how the audits and testing required by Env-A 808 will be performed; and 4. Including examples of the reports that will be used to document the audits and tests required by Env-A 808. 	<p><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</p> <p><u>Annual</u> Submit results of annual review within 30 days of the annual review</p>	EU01	Env-A 808.06

Table 6 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
15	General Audit Requirements for all CEM Systems	<p>Audit each CEMS in accordance with the following:</p> <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> 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
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
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 1.	Quarterly	EU01	Env-A 808.09
18	CEMS & COMS Data Availability Requirements	<ol style="list-style-type: none"> 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

Table 6 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
19	Data Availability Calculations	<p>The Owner or Operator shall use the following equation for calculating percentage data availability:</p> $\text{Percentage Data Availability} = \frac{(VH + CalDT) \times 100}{(OH - AH)}$ <p>Where:</p> <p>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;</p> <p>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;</p> <p>OH = Number of facility operating hours during a given time period for which the data availability is being calculated; and</p> <p>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.</p>	As specified	EU01	Env-A 808.10

Table 6 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
20	Pollution Control Equipment Operating Plan	<p>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:</p> <ol style="list-style-type: none"> a. Type, manufacturer, model, and serial number; b. Pollutants controlled; c. Description of the control device and how it operates in the process; d. The capture efficiency, control efficiency, and their method of determination; e. The operational parameters that are monitored (e.g., temperature, pressure drop, flowrate etc.); f. For each operational parameter in e. above, the range indicative of proper operation of the control device during normal operation, startup, and shutdown; g. For catalytic control devices: <ol style="list-style-type: none"> 1. Method and frequency of catalyst activity monitoring; and 2. The frequency of catalyst replacement. h. The methods and frequency of operational parameter data monitoring and recordkeeping; i. Operational parameter setpoints and alarms; j. Planned and actual operator responses to malfunctions of the device; k. Procedures for operation of the device; l. Frequency and type of scheduled maintenance and calibration; and 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. 	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)
21	Startup/Shutdown Malfunction Plan	<p>Develop and submit to the Division for review and approval a Startup/Shutdown Malfunction Plan which contains the following elements, at a minimum:</p> <ol style="list-style-type: none"> 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. NO_x 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)

Table 6 - Monitoring and Testing Requirements					
Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
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)
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

VIII. Recordkeeping Requirements

The Owner or Operator shall be subject to the recordkeeping requirements identified in Table 7:

Table 7 - Recordkeeping Requirements				
Item #	Requirement	Duration/Frequency	Applicable Unit	Regulatory Basis
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
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)
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)
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)
5	<u>Opacity NSPS Subpart Db Recordkeeping Requirement</u> Maintain records of opacity	Continuously	EU01	40 CFR 60.49b(f)

Table 7 - Recordkeeping Requirements				
Item #	Requirement	Duration/ Frequency	Applicable Unit	Regulatory Basis
6	<p><u>Fire Pump</u> Maintain the following records of fuel characteristics and utilization for the fuel used in the each combustion device:</p> <ul style="list-style-type: none"> 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 III
7	<p><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 III.</p>	Maintain up-to-date data	EU03	40 CFR 60.4211 (Subpart III)
8	<p><u>Liquid Fuel Oil Recordkeeping Requirements</u> Maintain fuel delivery tickets that contain the following information:</p> <ul style="list-style-type: none"> a. The date of delivery; b. The quantity of delivery; 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 	<p>For each delivery of fuel oil to the facility</p> <p>Whenever there is a change in fuel supplier but at least annually</p>	EU01 & EU03	Env-A 806.05
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> <ul style="list-style-type: none"> a. Identification of each VOC-emitting process or device; 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: <ul style="list-style-type: none"> 1. Typical hours of operation per day; and 2. Typical days of operation per calendar month. c. The following VOC emission data from all VOC-emitting processes or devices identified in Table 7 Item 9.a above, including: <ul style="list-style-type: none"> 1. Actual VOC emissions for: 2. The calendar year, in tons; and 3. A typical high ozone season day during that calendar year, in pounds per day; and d. The emission factors and the origin of the emission factors used to calculate the VOC emissions. 	Maintain up-to-date data	Facility-wide	Env-A 904.02

Table 7 - Recordkeeping Requirements				
Item #	Requirement	Duration/Frequency	Applicable Unit	Regulatory Basis
10	<p><u>General NOx Recordkeeping Requirements</u> Maintain records of the following information:</p> <ol style="list-style-type: none"> Identification of each fuel burning device; 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: <ol style="list-style-type: none"> Typical hours of operation per day; Typical days of operation per calendar month; Number of weeks of operation; Type and amount of each fuel burned; Heat input rate in MMBtu/hr; Actual NOx emissions for the calendar year and a typical high ozone day during that calendar year; and 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
11	<p><u>Recordkeeping Requirements for Add-On NOx Control Equipment</u> Maintain records of the following information:</p> <ol style="list-style-type: none"> Air pollution control device identification number, type, model number, and manufacturer; Installation date; Unit(s) controlled; Type and location of the capture system, capture efficiency percent, and method of determination; Information as to whether the air pollution control device is always in operation when the fuel burning device it is serving is in operation; Destruction or removal efficiency of the air pollution control equipment, including the following information: <ol style="list-style-type: none"> Destruction or removal efficiency, in percent; Date tested; Emission test results; and Method of determining destruction or removal efficiency, if not tested. 	Maintain up-to-date data	PCE02	Env-A 905.03
12	<p><u>Pollution Control Equipment Operating Plan</u> Maintain the following:</p> <ol style="list-style-type: none"> The Pollution Control Equipment Operating Plan required in Table 6 Item 20; and Records of all data required to be recorded in accordance with the Pollution Control Equipment Operating Plan. 	<p>Maintain up-to-date plan</p> <p>As specified in the plan</p>	PCE01-PCE04	Env-A 906
13	<p><u>Startup/Shutdown Malfunction Plan</u> Maintain records of the following:</p> <ol style="list-style-type: none"> The Startup/Shutdown Malfunction Plan required in Table 6 Item 21; and 	Maintain up-to-date plan	EU01, EU02 & PCE01-PCE04	Env-A 906

Table 7 - Recordkeeping Requirements				
Item #	Requirement	Duration/Frequency	Applicable Unit	Regulatory Basis
	b. Records of all data required to be recorded in accordance with the Startup/Shutdown Malfunction Plan.	As specified in the plan		
14	<u>CEMS & 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
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
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

IX. Reporting Requirements

The Owner or Operator shall be subject to the reporting requirements identified in Table 8 below. All emissions data submitted to the Division shall be available to the public. Claims of confidentiality for any other information required to be submitted to the Division pursuant to this permit shall be made at the time of submission in accordance with Env-A 103, *Claims of Confidentiality*.

Table 8 - Reporting Requirements				
Item #	Requirement	Frequency	Applicable Unit	Regulatory Basis
1	<p><u>Annual Emissions Report</u> Submit an annual emissions report which shall include the following information:</p> <ul style="list-style-type: none"> a. Actual calendar year emissions from each emission unit of NO_x, CO, SO₂, 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
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"> a. The date construction is commenced, postmarked no later than 30 days after such date; 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"> 1. The design heat input capacity of the boiler; 2. Identification of fuels to be combusted in the boiler; 3. A copy of the federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels; and 4. The annual capacity factor at which the Owner or Operator anticipates operating the facility based on all fuels combined and each individual fuel. 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. 	As specified	EU01	40 CFR 60.7(a) & 40 CFR 60.49b(a) & 40 CFR 63 Subpart B (Case-by-Case MACT

Table 8 - Reporting Requirements

Item #	Requirement	Frequency	Applicable Unit	Regulatory Basis
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)
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"> 1. Source name; 2. Standard Industrial Classification (SIC) code; 3. North American Industrial Classification System (NAICS) code; 4. Physical and mailing addresses; and <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
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 NO_x 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
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)
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)

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

Table 8 - Reporting Requirements

Item #	Requirement	Frequency	Applicable Unit	Regulatory Basis
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)
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"> a. The particular permit condition or item number that references each requirement, and a brief summary of the requirement; b. 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; c. The method(s) used to determine compliance, such as monitoring, record keeping, or test methods; d. The frequency, either continuous or intermittent, of the method(s) used to determine compliance; e. If compliance was not continuous, a description of each permit deviation; and f. Any additional information required in order for the Division to determine the compliance status of the source. 	No later than April 15 of the year following the calendar year covered by the report	Facility-wide	Env-A 907.04(a)
11	<p><u>Semi-annual Permit Deviation and Monitoring Report</u> Submit a semi-annual permit deviation and monitoring report, which contains:</p> <ol style="list-style-type: none"> 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

Table 8 - Reporting Requirements				
Item #	Requirement	Frequency	Applicable Unit	Regulatory Basis
12	<u>CEMS & 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)
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
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
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
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
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

General Temporary/NSR/PSD Permit Conditions

X. Temporary Permit Reissuance Procedures

Pursuant to Env-A 607.02(b), for the reissuance of a temporary permit, an application shall be considered timely if it is received by the Division at least 90 days prior to the designated expiration date of the temporary permit.

XI. Timely Application

Pursuant to Env-A 609.07(a)(2), for an initial Title V Operating Permit, an application shall be considered timely if it is received at the Division within 12 months of commencing operation.

XII. Permit Expiration

Pursuant to Env-A 607.08(c), the expiration of a temporary permit shall terminate the Owner or Operator's right to construct or operate a new or modified source or device pursuant to the permit, unless a timely and complete application for a state permit to operate, title V operating permit, or an amendment thereto, has been received by the Division. Upon the submittal of a timely and complete application for any of the foregoing permits, the right to construct shall continue, under the terms and conditions of the expired temporary permit, pending the Division's decision on the application.

XIII. Application Shield

- A. Pursuant to Env-A 607.10(a), if an applicant submits a timely application that has been deemed complete by the Division for the reissuance of a temporary permit or the issuance of an initial state permit to operate, the failure to have a current and valid temporary permit shall not be considered a violation of RSA 125-C:11,I or Env-A 607.01 unless and until the Division takes final action on the application by denying the requested reissuance of a temporary permit or issuance of a state permit to operate.
- B. Pursuant to Env-A 607.10(b), if the Division deems an application complete, but requests additional information pursuant to Env-A 607.06(b), the protection granted in Env-A 607.10(a) shall cease to apply when the applicant fails to submit in writing such additional requested information by the deadline specified in the request.

XIV. Permit Amendments

A. Env-A 612.01, *Administrative Permit Amendments:*

1. An administrative permit amendment includes the following:
 - a. Corrects typographical errors;
 - b. Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - c. Requires more frequent monitoring or reporting; or
 - d. Allows for a change in ownership or operational control of a source provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittee has been submitted to the Division.
2. The Owner or Operator may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

B. Env-A 612.03, *Minor Permit Amendments: Temporary Permits and State Permits to Operate:*

1. The Owner or Operator shall submit to the Division a request for a minor permit amendment for any proposed change to any of the conditions contained in this permit which will not result in an increase in the amount of a specific air pollutant currently emitted by the emission units listed in Condition III and will not result in the emission of any air pollutant not emitted by the emission unit.
2. The request for a minor permit amendment shall be in the form of a letter to the Division and shall include the following:
 - a. A description of the proposed change; and
 - b. A description of any new applicable requirements that will apply if the change occurs.
3. The Owner or Operator may implement the proposed change immediately upon filing a request for the minor permit amendment.

C. Env-A 612.04, *Significant Permit Amendments: Temporary Permits and State Permits to Operate:*

1. The Owner or Operator shall submit a written request for a permit amendment to the Division at least 90 days prior to the implementation of any proposed change to the physical structure or operation of the emission units covered by this permit which increases the amount of a specific air pollutant currently emitted by such emission unit or which results in the emission of any regulated air pollutant currently not emitted by such emission unit.
2. A request for a significant permit amendment shall include the following:
 - a. A complete application form, as described in Env-A 1703 through Env-A 1708, as applicable;
 - b. A description of:
 - i. The proposed change;
 - ii. The emissions resulting from the change; and
 - iii. Any new applicable requirements that will apply if the change occurs; and
 - iv. Where air pollution dispersion modeling is required for a device pursuant to Env-A 606.02, the information required pursuant to Env-A 606.03.
3. The Owner or Operator shall not implement the proposed change until the Division issues the amended permit.

XV. Temporary/NSR/PSD Permit Suspension, Revocation or Nullification

- A. Pursuant to RSA 125-C:13, the NHDES Commissioner may suspend or revoke any final permit issued hereunder if, following a hearing, the Commissioner determines that:
 - 1. The Owner or Operator has committed a violation of any applicable statute or state requirement found in the New Hampshire Rules Governing the Control of Air Pollution, order or permit condition in force and applicable to it; or
 - 2. The emissions from any device to which this Permit applies, alone or in conjunction with other sources of the same pollutants, presents an immediate danger to the public health.
- B. The Commissioner shall nullify any Permit if, following a hearing in accordance with RSA 541-A:30, II, a finding is made that the Permit was issued in whole or in part based upon any information proven to be intentionally false or misleading.

XVI. Permit Deviation Recordkeeping and Reporting Requirements

- A. The Owner or Operator shall be subject to the permit deviation recordkeeping and reporting requirements in Table 9 below, where permit deviation and excess emission are defined as follows:

Env-A 101, *Definitions*:

- 1. A *permit deviation* is any occurrence that results in an excursion from any emission limitation, operating condition, or work practice standard as specified in either a Title V permit, state permit to operate, temporary permit or general state permit issued by the Division.
- 2. An *excess emission* is an air emission rate that exceeds any applicable emission limitation.

Table 9 - Permit Deviation Recordkeeping and Reporting Requirements			
Item #	Requirement	Frequency	Regulatory Basis
1	<p><u><i>Permit Deviation Recordkeeping</i></u> In the event of a permit deviation, the Owner or Operator shall:</p> <ul style="list-style-type: none"> a.. Investigate and take corrective action immediately upon discovery of the permit deviation to restore the affected device, process, or air pollution control equipment to within allowable permit levels; and b. Record the following information: <ul style="list-style-type: none"> 1. The permit deviation; 2. The probable cause of the permit deviation; 3. The date of the occurrence; 4. The duration; 5. The specific device that contributed to the permit deviation; and 6. Any corrective or preventative measures taken. 	Each permit deviation	Env-A 911.03

Table 9 - Permit Deviation Recordkeeping and Reporting Requirements

Item #	Requirement	Frequency	Regulatory Basis
2	<p><u>Permit Deviation Reporting – No Excess Emissions</u> If the permit deviation does not cause excess emissions, but continues for a period greater than nine consecutive days, notify the Division by e-mail (pdeviations@des.nh.gov), telephone (603-271-1370) or fax (603-271-1381), of the subsequent corrective actions to be taken.</p>	On the tenth day of the permit deviation, unless it is a Saturday, Sunday, or state or federal legal holiday, in which event, the Division shall be notified on the next day which is not a Saturday, Sunday, or state or federal legal holiday	Env-A 911.04
3	<p><u>Permit Deviation Reporting – Excess Emissions</u> In the event of a permit deviation that causes excess emissions:</p> <ol style="list-style-type: none"> a. Notify the Division of the permit deviation and excess emissions by e-mail, telephone or fax,; and b. Submit a written report to the Division reported in Item a, above. The written report shall include the following information: <ol style="list-style-type: none"> 1. Facility name; 2. Facility address; 3. Name of the responsible official employed at the facility; 4. Facility telephone number; 5. Date(s) of the occurrence; 6. Time of the occurrence; 7. Description of the permit deviation; 8. The probable cause of the permit deviation; 9. Corrective action taken to date; 10. Preventative measures taken to prevent future occurrences; and 11. Date and time that the device, process, or air pollution control equipment returned to operation in compliance with an enforceable emission limitation, or operating condition; 12. The specific device, process or air pollution control equipment that contributed to the permit deviation; 13. The type and quantity of excess emissions emitted to the atmosphere due to the permit deviation; and 14. The calculation or estimation used to quantify the excess emissions. 	<p><i>Notification:</i> Within twenty-four (24) hours of discovery of the permit deviation, unless it is a Saturday, Sunday, or state or federal legal holiday, in which event, the Division shall be notified on the next day which is not a Saturday, Sunday, or state or federal legal holiday</p> <p><i>Written Report:</i> Within ten (10) days of discovery of the permit deviation</p>	Env-A 911.04
4	<p><u>Data Availability Permit Deviations</u> In the event of a permit deviation caused by a failure to comply with the data availability requirements of Env-A 800:</p> <ol style="list-style-type: none"> a. Notify the Division of the permit deviation by e-mail, telephone or fax,; and b. Report the permit deviation to the Division, as part of the emissions report required pursuant to Table 8 Item 8. 	<p><i>Notification:</i> Within 10 days of discovery of the permit deviation</p> <p><i>Written Report:</i> See Table 8 Item 8</p>	Env-A 911.04(c)

XVII. Inspection and Entry

EPA and Division personnel shall be granted access to the facility covered by this Permit, in accordance with RSA 125-C:6,VII, for the purposes of: inspecting the proposed or permitted site; investigating a complaint; and assuring compliance with any applicable requirement or state requirement found in the NH Rules Governing the Control of Air Pollution and/or conditions of any permit issued pursuant to Env-A 600.

XVIII. Reports

All reports submitted to the Division (except those submitted as emission-based fees as outlined in Section XIX of this Permit) shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095
ATTN: Administrator, Compliance Bureau

All reports submitted to USEPA shall be submitted to the following address:

EPA-New England, Region 1
5 Post Office Sq. Suite 100
Mail Code OEP05-2
Boston, MA 02109-3912

XIX. Emission-Based Fee Requirements

- A. Env-A 705.01, *Emission-based Fees*: The Owner or Operator shall pay to the Division each year an emission-based fee for emissions from the emission units listed in Condition III.
- B. Env-A 705.02, *Determination of Actual Emissions for use in Calculating of Emission-based Fees*: The Owner or Operator shall determine the total actual annual emissions from the emission units listed in Condition III for each calendar year in accordance with the methods specified in Env-A 616, *Determination of Actual Emissions*..
- C. Env-A 705.03, *Calculation of Emission-based Fees*: The Owner or Operator shall calculate the annual emission-based fee for each calendar year in accordance with the procedures specified in Env-A 705.03 and the following equation:
- $$FEE = E * DPT$$
- where:
- FEE = The annual emission-based fee for each calendar year as specified in Env-A 705;
E = Total actual emissions as determined pursuant to Condition XIX.B.; and
DPT = The dollar per ton fee the Division has specified in Env-A 705.03(e)¹⁶.
- D. Env-A 705.04, *Payment of Emission-based Fee*: The Owner or Operator shall submit, to the Division, payment of the emission-based fee by April 15th for emissions during the previous calendar year. For example, the fees for calendar year 2010 shall be submitted on or before April 15, 2011.

XX. Emission Offset Requirements

The Owner or Operator shall prior to commencing operation demonstrate that NOx offsets have been obtained in a ratio of 1.15 to 1.0. Such emission offsets shall be real, surplus, quantifiable, permanent and federally enforceable and shall be certified by the Division in accordance with all applicable state and federal regulations.