ATTACHMENT B

State of New Hampshire
Department of Environmental Services
Air Resources Division

Temporary Permit

Permit No: TP-B-0543
Date Issued: March 17, 2008

This certifies that:

Pinetree Power - Tamworth, Inc.
1990 Post Oak Boulevard, Suite 1900
Houston, TX 77056-4499

has been granted a Temporary Permit for an:

Installation of Selective Non-Catalytic Reduction (SNCR) & Selective Catalytic Reduction (SCR) Systems on Wood-fired Boiler

at the following facility and location:

Pinetree Power - Tamworth
469 Plains Road, Route 41
Tamworth, NH 03886
Carroll County
Facility ID Number: 3300300019
Application Number: FY07-0259

which includes devices that emit air pollutants into the ambient air as set forth in the permit application filed with the New Hampshire Department of Environmental Services, Air Resources Division (Division) on **December 14, 2007**, in accordance with RSA 125-C of the New Hampshire Laws. Request for permit renewal 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 **September 30, 2009**.

COPY

Director
Air Resources Division

Abbreviations and Acronyms

AAL	Ambient Air Limit
acf	actual cubic foot
ags	above ground surface
ASTM	American Society of Testing and Materials
Btu	British thermal units
CAAA	Clean Air Act Amendments (1990)
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstracts Service
CEM	Continuous Emissions Monitoring
CERMS	Continuous Emission Rate Monitoring System
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
DER	Discrete Emission Reduction
DES	New Hampshire Department of Environmental Services
dscfm	dry standard cubic feet per minute
Env-A	New Hampshire Code of Administrative Rules – Air Resources Division
ft	foot or feet
ft3	cubic feet
gal	gallon
HAP	Hazardous Air Pollutant
hp	horsepower
hr	hour
kW	kilowatt
lb	pound
MM	million
MW	megawatt
NAAQS	National Ambient Air Quality Standard
NOx	Oxides of Nitrogen
NSPS	New Source Performance Standard
PM10	Particulate Matter < 10 microns
ppm	parts per million
ppmvd	parts per million by volume on a dry basis
psig	pounds per square inch gauge
RACT	Reasonably Available Control Technology
RSA	Revised Statutes Annotated
SCR	Selective Catalytic Reduction
RTAP	Regulated Toxic Air Pollutant
scf	standard cubic foot
SO2	Sulfur Dioxide
TSP	Total Suspended Particulate
tpy	tons per consecutive 12-month period
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

IV. Pollution Control Equipment Identification

The devices and/or processes identified in Table 2 are considered pollution control equipment or techniques for each identified emissions unit[1]:

Table 2 – Pollution Control Equipment Identification		
Pollution Control Equipment Number	**Description of Equipment**	**Activity**
PCE3 (new)	Selective Non-Catalytic Reduction (SNCR) System	Control of nitrogen oxides
PCE4 (new)	Selective Catalytic Reduction (SCR) System	Control of nitrogen oxides

A. All equipment, techniques, facilities and systems installed and used to achieve compliance with the terms and conditions of this Permit shall at all times be maintained in good working order and shall be operated in accordance with manufacturers specifications so as to minimize air pollutant emissions.

B. Manufacturer's recommended maintenance schedules and specifications shall be kept on file for review by the DES and/or EPA upon request.

V. Stack Criteria

Condition III.B of Permit TV-OP-018 is deleted and replaced by Conditions V.A, B, and C, below:

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

Table 3 - Stack Criteria		
Stack #	**Minimum Stack Height (Feet)**	**Maximum Stack Diameter (Feet)**
Stack #1 (Boiler)	197.5	8.5

B. Stack criteria described in Table 3 may be changed without prior approval from the Division provided that:

1. An air quality impact analysis is performed either by the facility or the Division (if requested by the facility in writing) in accordance with Env-A 606, *Air Pollution Dispersion Modeling Impact Analysis Requirements*, and the "Guidance and Procedure for Performing Air Quality Impact Modeling in New Hampshire," and
2. The analysis demonstrates that emissions from the modified stack will continue to comply with all applicable emission limitations and ambient air limits.

C. All air modeling data and analyses shall be kept on file at the facility for review by the Division upon request.

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[1] PCE3 and PCE 4 are installed voluntarily by the permittee and as such, the permittee may operate these devices at its discretion.

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VI. Operating and Emission Limitations

The Owner or Operator shall be subject to the operating and emission limitations identified in Table 4:

Table 4 - Operating and Emission Limitations

Item #	Requirement	Applicable Emission Unit	Regulatory Basis
1.	*Ammonia Slip Emissions Limit* Ammonia slip emissions from the Boiler shall be limited to 20 ppmvd @ 6% oxygen (O_2) dry volume.	EU1, PCE3, & PCE4	Temporary Permit Application FY07-0259

VII. Monitoring and Testing Requirements

The Owner or Operator is subject to the monitoring and testing requirements as contained in Table 5:

Table 5 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
1.	Urea Flow to SNCR & SCR	When in operation, the urea flow to the SNCR and SCR shall be continuously monitored using a DES approved urea flow meter. Urea usage shall be calculated and recorded daily.	Continuous & daily calculations	PCE3 & PCE4	RSA 125-C:6, XI, Env-A 801.02(a)
2.	SCR Catalyst Bed Temperature	When in operation, the temperature in the SCR catalyst bed(s) shall be continuously monitored using DES approved temperature monitors. The owner or operator shall calculate and record the average daily temperature (based on hourly readings) within the SCR catalyst bed.	Continuous & average daily calculations	PCE4	RSA 125-C:6, XI, Env-A 801.02(a)
3.	Urea Flow/NOx Emission Rate Comparison	The owner or operator shall calculate and record the average daily urea flow rate in gal/hr based on the urea flow meter and calculate the ratio of the average daily urea flow rate in gal/hr/average daily NOx emission rate in lb/hr (based on the NOx CEM data) for the purpose of determining PCE performance.	Daily	EU1, PCE3, & PCE4	RSA 125-C:6, XI, Env-A 801.02(a)
4.	Ammonia Slip	The owner or operator shall conduct initial and annual ammonia stack testing after the installation of the SCR and SNCR Systems in accordance with Section X of this Permit.	Initial performance test and annually thereafter	EU1	RSA 125-C:6, XI, Env-A 801.02(a)
5.	Testing and Monitoring Fees	*Testing and Monitoring Fees for Temporary Permits* The Owner or Operator shall be subject to fees for any testing and monitoring which Division personnel undertake or audit in accordance with the first annual ammonia slip stack testing required pursuant to Table 2, Item 2 above.	Payment due to the Department within 60 days of the billing date	EU01, PCE3 & PCE4	Env-A 704

VIII. Recordkeeping Requirements

The Owner or Operator shall be subject to the recordkeeping requirements identified in Table 6:

Table 6 - Recordkeeping Requirements

Item #	Requirement	Duration/ Frequency	Applicable Unit	Regulatory Basis
1.	*Record Retention and Availability* Maintain the required records on file. These records shall be available for review by the Division upon request.	Retain for a minimum of 5 years	Facility Wide	Env-A 902
2.	*Regulated Toxic Air Pollutants* Maintain records documenting compliance with Env-A 1400.	Maintain Current Data	Facility Wide	Env-A 902.01(c)
3.	*SCR & SNCR Recordkeeping Requirements* For the SCR and SNCR systems, the owner or operator shall keep records of the following information in accordance with the required timeframes: a. Daily urea usage in gallons; b. Average daily urea flow in lb/hr; c. Daily calculated ratio of the average daily urea flow (lb/hr) to average daily NOx emissions (lb/hr); and d. Average daily temperatures of the SCR catalyst beds.	Daily	PCE3 & PCE4	Env-A 906
4.	*Recordkeeping Requirements for Add-On NOx Control Equipment* The owner or operator shall record and maintain 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; and 3. Method of determining destruction or removal efficiency, if not tested.	Maintain at the facility at all times	PCE3 & PCE4	Env-A 905.03

IX. Reporting Requirements

The Owner or Operator shall be subject to the reporting requirements identified in Table 7 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 7 - Reporting Requirements

Item #	Requirement	Frequency	Applicable Emission Unit	Regulatory Basis
1.	*SCR & SNCR Systems Quarterly Report* For the SCR and SNCR systems, the owner or operator shall report the following information quarterly with the CEM Excess Emissions Report: a. Daily urea usage in gallons; b. Average daily urea flow in lb/hr; c. Daily calculated ratio of average daily urea flow (lb/hr) to average daily NOx emissions (lb/hr); and d. Average daily temperature of the SCR catalyst beds.	Quarterly	PCE3 & PCE4	Env-A 910
2.	*Annual Emissions Report* Submit an annual emissions report which shall include the following information: a. Actual calendar year emissions from each emission unit of NO_x, CO, SO_2, TSP, and VOCs, HAPs, and RTAPs; b. The methods used in calculating such emissions in accordance with Env-A 705.02, *Determination of Actual Emissions for Use in Calculating Emission-Based Fees*; and c. All information recorded in accordance with Table 7, Item 5 of Title V Operating Permit TV-OP-018.	Annually (no later than April 15th of the following year)	Facility-wide	Env-A 907.01

X. Ammonia Slip Performance Testing/Compliance Testing Requirements

Within 60 days of achieving the maximum production rate of EU1 after the installation of the SNCR system (PCE3) and SCR system (PCE4), and annually thereafter, the owner or operator shall conduct separate USEPA Method stack tests at maximum operating rate conditions for the SNCR and SCR systems, and/or at the request of the Division, at any other operating rate at which maximum emissions might occur. Testing shall be performed on the exhaust stack from EU1 and PCE3 and PCE4 as follows:

A. Ammonia concentration shall be measured following EPA CTM 0027 or DES approved alternative;

B. The testing shall follow all requirements specified in Env-A 802, Compliance Stack Testing for Stationary Sources, which includes but is not limited to the following:

1. Submission of a Pre-test Protocol as specified in Env-A 802.04;
2. Holding a pretest meeting between DES, the owner or operator, and the contractor stack testing company at the facility as specified in Env-A 802.05; and
3. Submission of a stack testing report no later than 60 days following the successful completion of the stack test as specified in Env-A 802.11.