

STATE OF NEW HAMPSHIRE
BEFORE THE
NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

Pinetree Power, Inc.

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Docket No. _____

APPLICATION OF PINETREE POWER, INC. FOR CERTIFICATION
AS A RENEWABLE PORTFOLIO STANDARD (“RPS”)
CLASS III GENERATOR

Pursuant to RSA 362-F:11 and PUC Interim Rule part 2500, Pinetree Power, Inc. (hereinafter Applicant) makes the following application for RPS Class III generator certification and requests certification of eligibility in accordance with the statute and rules.

Applicant provides the following information:

- (a) The name and address of the applicant: Pinetree Power, Inc.
1241 Whitefield Road
Bethlehem, NH 03574
1-603-444-9993 x 12
1-603-444-6476
Mark Driscoll (contact)
- (b) The location of the facility: 1241 Whitefield Road
Bethlehem, NH 03574
- (c) The ISO-New England asset identification number: MSS 337
- (d) The NEPOOL GIS facility code: ORISPL 50208
- (e) Description of the facility: Name plate capacity: 17.1 MW
Gross generation capacity: 17.1 MW
Initial commercial operation date: 12/24/1986
Fuel type: See following:

Applicant uses biomass fuels as defined in RSA 362-F:2, including clean and untreated wood such as brush, stumps, lumber ends and trimmings, wood pallets, bark, wood chips, wood pellets, shavings, sawdust, and slash.

(f) <u>Emission information:</u>	Permitted NOx emissions rate:	0.3lbs/Mmbtu
	RPS eligibility NOx rate:	.065lbs or less/Mmbtu (quarterly average)
	Permitted particulate matter rate:	0.03lbs/Mmbtu
	RPS eligibility particulate matter rate:	0.02lbs or less/Mmbtu
	Proposed practices:	See following:

Applicant intends to employ four different NOx reduction technologies to achieve the RPS eligibility NOx emission rate. These technologies are overfire air (OFA), flue gas recirculation (FGR), selective non-catalytic reduction (SNCR) and selective catalytic reduction (SCR). This combination of technologies will provide the plant flexibility in managing the boiler emissions. The chosen configuration requires a modification of an existing OFA system and installation of new FGR, SNCR, and SCR systems. The four technologies are described, in brief, below.

The existing OFA system will be modified and reused. The existing OFA fan and headers will supply air to six new ports. The existing ports will be abandoned. The new OFA system will operate at a lower pressure, thereby enabling the OFA fan to achieve a higher airflow rate. The existing OFA control philosophy will be maintained, however, the amount of OFA will be increased and the undergrate air reduced. A small amount of oxygen will be introduced in the FGR system and fuel distributors.

An FGR fan will be installed to extract flue gas from the air heater outlet and direct it to the undergrate air plenum. Three FGR duct plenums will be installed underneath the grate to distribute the FGR in the proper zones for reducing NO_x emissions. Each plenum will have a manual damper that will be set during optimization and then locked in place. A flow meter will measure the FGR flow. The FGR rate will be determined during optimization. The FGR flow rate will be set from the boiler steam flow. An analog steam flow signal will be used to set the FGR fan speed.

The SNCR system will incorporate a reagent storage and delivery system to automatically inject urea reagent into the upper furnace combustion gases of the boiler. Urea reagent reacts with NO_x in the flue gas to form nitrogen, carbon dioxide and water. A concentrated urea solution will be metered to the boiler for NO_x reduction by a metering pump, based upon boiler steam flow. SNCR injectors will be automatically retracted from the boiler if the boiler is operated below 75% load. An upper furnace temperature monitor will trim the vertical position of the injectors to maintain the injection in the optimal temperature zone.

An SCR system will be installed after the existing electrostatic precipitator. The SCR reactor will have 4 injectors installed in the duct prior to an SCR reactor box. A separate urea pump will be provided to control the injection rate of urea to the SCR duct. The flow rate of urea to the SCR will be automatically controlled by the stack NO_x set point. This stack NO_x set point will be adjustable by the operator. Atomizing air with individual pressure regulators on a distribution module will be provided to the SCR injectors to control droplet size, penetration and distribution of urea into the duct. A temperature transmitter will be installed at the SCR reactor outlet. This transmitter will be used to control the air heater by-pass damper to maintain a 420°F

stack temperature. The SCR system will be equipped with manual isolation and by-pass dampers (2% leakage dampers) so the boiler can be operated without the SCR in service.

Applicant currently uses two pieces of pollution control equipment to control particulate emissions at a level that DES certification of stack tests will demonstrate satisfies the RPS eligibility requirement for particulate emissions. Pinetree utilizes a multicyclone as its primary particulate control and an electrostatic precipitator (“ESP”) as its secondary particulate control. The two controls are operated in series. Emissions pass through the multicyclone first. Emissions from the multicyclone are then drawn to the ESP by a fan.

(g) Demonstration of regulatory approvals:

Applicant operates under a Title V air permit issued by the New Hampshire Department of Environmental Services. The permit number is TV-0P-019. See Attachment A. This permit was issued on October 17, 2005 and is valid until October 31, 2010. Pinetree Power Inc. applied for a revised Title V air permit on November 19, 2007, which has not yet been issued. Pinetree Power, Inc. expects that this permit will be issued in final form after it installs its new pollution control equipment and performs initial emission testing.

(h) Interconnection study: See Docket No. DR 86-028 and Attachment B.

(i) Proof of filing with DES: See Attachment C.

(j) Additional information:

Applicant is certified as a Class II generator in the State of Connecticut, and applied for Connecticut Class I status on October 10, 2007. Applicant expects certification as a Connecticut Class I generator following the modification of its emission controls as described above and submission of emissions data.

WHEREFORE, Pinetree Power, Inc. respectfully requests that the Commission conditionally certify its facility as a Class III generator, and, upon receipt of the necessary emission information from the Department of Environmental Services, designate the facility as eligible pursuant to RSA 362-F:6, III as of the date of the facility's stack tests for initial certification under 362-F:12, III.

Respectfully submitted:
Pinetree Power, Inc.
By its attorneys:

Date: February 11, 2008

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ATTACHMENT A



TITLE V OPERATING PERMIT

Permit No: **TV-OP-019**
Date Issued: **October 17, 2005**

This certifies that:
Suez Energy Generation North America
1990 Post Oak Boulevard, Suite 1900
Houston, TX 77056-4499

has been granted a Title V Operating Permit for the following facility and location:
Pinetree Power - Bethlehem
1241 Whitefield Road
Bethlehem, NH 03574
Grafton County
AFS No. 3300900026

This Title V Operating Permit is hereby issued under the terms and conditions specified in the Title V Operating Permit Application filed with the New Hampshire Department of Environmental Services on **March 31, 2004** under the signature of the following responsible official certifying to the best of his knowledge that the statements and information therein are true, accurate and complete.

Responsible Official:
Mark Driscoll
Plant Manager
(603) 444-9993 (Ext. 12)
Technical Contact:
Herb Dodge
Plant Electrician
(603) 444-9993 (Ext. 17)

This Permit is issued by the New Hampshire Department of Environmental Services, Air Resources Division pursuant to its authority under New Hampshire RSA 125-C and in accordance with the provisions of the Code of Federal Regulations, Title 40, Part 70. This permit is effective upon issuance.

This Title V Operating Permit shall expire on **October 31, 2010**.

SEE ATTACHED SHEETS FOR ADDITIONAL PERMIT CONDITIONS

For the New Hampshire Department of Environmental Services, Air Resources Division



Director, Air Resources Division

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ABBREVIATIONS

AAL	Ambient Air Limit
AP-42	Compilation of Air Pollutant Emission Factors
ARD	Air Resources Division
ASTM	American Society for Testing and Materials
BTU	British Thermal Units
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon monoxide
CO ₂	Carbon dioxide
COMS	Continuous Opacity Monitoring System
DER	Discrete Emission Reduction
DSCFM	Dry standard cubic feet per minute
Env-A	New Hampshire Code of Administrative Rules - Air Resources Division
ERC	Emission Reduction Credit
ESP	Electrostatic Static Precipitator
Hr	Hour
Lb/hr	Pounds per hour
MMBTU	Million British Thermal Units
NAAQS	National Ambient Air Quality Standard
NHDES (or DES)	New Hampshire Department of Environmental Services
NO _x	Oxides of Nitrogen
NSPS	New Source Performance Standard
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 microns diameter
PSD	Prevention of Significant Deterioration
PSI	Pounds per Square Inch
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
RTAP	Regulated Toxic Air Pollutant
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
TPY	Tons per Year
USEPA	United States Environmental Protection Agency

Facility Specific Title V Operating Permit Conditions

I. Facility Description of Operations

Pinetree - Bethlehem (the Permittee) operates a 17.5 megawatt (MW) gross output, power generation facility located in Bethlehem, New Hampshire. Steam produced in a wood fired boiler rated at 289.43 million British thermal unit per hour (MMBTU/hr) drives the turbine generator. The facility also operates an emergency generator rated at 603 horsepower (hp). This generator is fired only in the event of a Public Service Company of New Hampshire blackout, in the event of a fire and for maintenance purposes. The facility is a major source for nitrogen oxides and carbon monoxide and is therefore required to obtain a Title V Operating Permit. Pinetree-Bethlehem received a Prevention of Significant Deterioration (PSD) permit from United States Environmental Agency (USEPA) on July1, 1991.

II. Permitted Activities

In accordance with all of the applicable requirements identified in the Permit, the Permittee is authorized to operate the devices and/or processes identified in Sections III, IV, V, and VI within the terms and conditions specified in this permit.

III. Emission Unit Identification

A. Significant Activities

The activities identified in Table 1 are subject to and regulated by this Title V Operating Permit.

Table 1 - Significant Activity Identification		
Emission Unit #	Description of Emission Unit	Emissions Unit Maximum Permitted Capacity
EU01	Zurn Two Drum Waterwall Bent Tube Wood-fired Boiler Type of Burner: Spreader Stoker Date of installation: December 1987	The maximum operating rate of the boiler is limited to 289.43 MMBTU/hr of heat input, which is equivalent to 34.1 tons/hour of wood chips with a heating value of 4,250 BTU/lb, assuming approximately 50% moisture. This is equivalent to 165,000 lbs/hr of steam production as averaged over any consecutive 24-hour period at 825 °F and 625 PSIG, assuming a boiler efficiency of 67% and boiler feedwater temperature of 278 °F.
EU02	Cooling Tower Date of installation: 1987	Drift Factor = 0.02% ¹ Circulation Rate = 15,000 gallons/minute
EU03	603 hp Caterpillar Emergency Diesel Generator, Model #3408 Date of installation: July 1985	All emergency generators including the fire pumps, are limited to operate less than 500 hours each during any consecutive 12 month-period and the combined theoretical potential emissions of NOx from all such generators are limited to less than 25 tons for any consecutive 12-month period.
EU04	195 hp Fire pump (Caterpillar)	
EU05	195 hp Fire pump (Caterpillar)	

¹ AP-42 Chapter 13.4 *Wet Cooling Towers*, Table 13.4-1.

B. Stack Criteria

The stacks listed in Table 2 - Stack Criteria, for the significant devices described in Table 1 and listed below, shall discharge vertically without obstruction (including rain caps) and meet the following criteria in accordance with the state-only requirements² of Env-A 606.

Table 2 - Stack Criteria		
Stack #	Minimum Stack Height (Feet)	Maximum Stack Diameter (Feet)
Stack #1 (Boiler)	197.5	7.5

The Permittee may change the stack criteria described in Table 2 without obtaining approval from the DES provided that an air quality impact analysis is performed either by the facility or the DES (if requested by the facility in writing) in accordance with Env-A 606 and the “NHDES-ARD Procedure for Air Quality Impact Modeling”, and that the analysis demonstrates that emissions from the modified stack will continue to comply with all applicable emission limitations and ambient air limits. All air modeling data and analyses shall be kept on file at the facility for review by the DES upon request.

IV. Insignificant Activities Identification

All activities at this facility, which meet the criteria identified in Env-A 609.04, shall be considered insignificant activities. Emissions from the insignificant activities shall be included in the total facility emissions for the emission-based fee calculation described in Section XXIII of this Permit.

V. Exempt Activities Identification

All activities identified in Env-A 609.03(c) shall be considered exempt activities and shall not be included in the total facility emissions for the emission-based fee calculation described in Section XXIII of this permit.

VI. Pollution Control Equipment Identification

The devices and/or processes identified in Table 3 are considered pollution control equipment or techniques for each identified emission unit:

Table 3 - Pollution Control Equipment Identification		
Pollution Control Equipment Number (PCE#)	Description of Equipment	EU#
PCE1	Multiclone - primary particulate control	EU01
PCE2	Electrostatic Precipitator (ESP) - secondary particulate control	

- A. The PCE1-Multiclone shall be operated in series with the PCE2-ESP unit (i.e., emissions from the Multiclone are pulled to the ESP by an ID fan).

²The term “state-only requirement” is used to refer to those requirements that are not federally enforceable but are state requirements as defined in Env-A 101.263.

- B. 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. These controls³ shall be fully operational upon the Boiler startup and shall not be bypassed during startup, operation, or shutdown of the steam generating unit.
- C. Manufacturer’s recommended maintenance schedules and specifications shall be kept on file for review by the DES and/or EPA upon request.

VII. Alternative Operating Scenarios

No alternative operating scenarios were identified for this permit.

VIII. Applicable Requirements

A. State-only Enforceable Operational and Emission Limitations

The Permittee shall be subject to the state-only operational and emission limitations identified in Table 4 below:

Table 4 - State-only Enforceable Operational and Emission Limitations			
Item #	Applicable Requirements	Applicable Emission Unit	Regulatory Cite
1.	The emissions of any regulated toxic air pollutant (RTAP) shall not cause an exceedance of its associated 24-hour or annual ambient air limit as set forth in Env-A 1450.01, <i>Table Containing the List Naming All Regulated Toxic Air Pollutants</i> .	Facility Wide	Env-A 1400
2.	The owner of any device or process that emits a RTAP, shall determine compliance with the ambient air limits by using one of the methods provided in Env-A 1405.02, Env-A 1405.03, Env-A 1405.04, Env-A 1405.05 or Env-A 1405.06.	Facility Wide	Env-A 1405.01
3.	Documentation for the demonstration of compliance with Env-A 1400 shall be retained at the facility and shall be made available to DES for inspection.	Facility Wide	Env-A 1403.01(d)
4.	If DES revises the list of RTAPs or their respective ambient air limits or classifications under RSA 125-I:4, II and III, and as a result of such revision the Permittee is required to obtain or modify the Permit under the provisions of RSA 125-I or RSA 125-C, the Permittee 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. DES shall include as conditions in any permit issued as a result of a revision to the list of RTAPs a compliance plan and a schedule for achieving compliance based on public health, economic and technical consideration, not to exceed 3 years.	Facility Wide	RSA 125-I:5, IV

³ PCE1 and PCE2 can be shutdown when the facility is shutdown for maintenance.

B. Federally Enforceable Operational and Emission Limitations

The Permittee shall be subject to the Federally enforceable operational and emission limitations identified in Table 5 below:

Table 5 - Federally Enforceable Operational and Emission Limitations			
Item #	Applicable Requirement	Applicable Emission Unit	Regulatory Cite
1.	Pinetree-Bethlehem shall burn in the boiler only wood chips uncontaminated by glues, preservatives, oils or similar substances. Pinetree-Bethlehem shall notify DES/EPA of all proposed sources of wood-fuel other than wood chips and of the nature of said fuels. Pinetree-Bethlehem shall obtain written permission from DES/EPA prior to the securing of any purchase/utilization agreements for said fuels.	EU01	PSD Permit No. 043-149NH09
2.	Based on equipment design, the maximum operating rate of the boiler shall be limited to 289.43 MMBTU/hr gross heat input. This is equivalent to 34.1 tons/hr of wood chips with a heating value of 4,250 BTU/lb, assuming approximately 50% moisture.	EU01	PSD Permit No. 043-149NH09
3.	Maximum steam production is limited to 165,000 lbs/hr at 825°F and 625 PSIG, as averaged over any consecutive 24-hour period.	EU01	PSD Permit No. 043-149NH09
4.	The startup and shutdown periods for the boiler are defined as follows: (a) Startup periods are those periods of time from the initiation of wood firing until the unit reaches steady-state operation (85% to 100% load conditions). This period shall not exceed 8 hours (480 minutes) for a cold startup, nor 4 hours (240 minutes) for a hot startup. A cold startup shall be defined as startup when the boiler has been down for more than 24 hours. (b) Shutdown periods shall not exceed 4 hours (240 minutes) from the moment the wood fuel supply to the boiler is eliminated. (c) The number of hours that the boiler can operate in a startup or shutdown mode shall not exceed 15% of the total operating hours of the plant.	EU01	PSD Permit No. 043-149NH09
5.	Pinetree - Bethlehem is subject to the following opacity limits: (a) Startup/Shutdown Conditions Pinetree-Bethlehem shall not cause or allow visible emissions from the boiler to exceed 20 percent (6-minute average), except for one 6-minute average per hour of not more than 27 percent opacity. (b) Steady State Operating Conditions Pinetree-Bethlehem shall not cause or allow visible emissions from the boiler to exceed 15 percent (6-minute average), except for one 6-minute average per hour of not more than 27 percent opacity. (c) Opacity shall be determined in accordance with procedures set forth in 40 CFR 60, Appendix A, Method 9 during Continuous Opacity Monitoring System (COMS) down times.	EU01	PSD Permit No. 043-149NH09
6.	The volatile organic compound emission rate for the boiler shall be limited to 0.096 lb/MMBTU heat input and 27.80 lb/hr at all times.	EU01	PSD Permit No. 043-149NH09
7.	The nitrogen oxides (NO _x) emission rate from the boiler shall be limited to 86.8 lb/hr and 0.3 lb/MMBTU, as averaged over any consecutive 24-hour period.	EU01	PSD Permit No. 043-149NH09

Pinetree Power - Bethlehem
TV-OP-019

Table 5 - Federally Enforceable Operational and Emission Limitations

Item #	Applicable Requirement	Applicable Emission Unit	Regulatory Cite
	Compliance with this emission limit shall be demonstrated using the NO _x Continuous Emissions Monitoring System (CEMS) data. ⁴		
8.	(a) During steady state operating conditions, the carbon monoxide (CO) emission rate for the boiler shall be limited to 0.5 lb/MMBTU heat input and 144.7 lb/hr as averaged over any consecutive 24-hour period. Compliance with this emission limit shall be demonstrated using the CO CEMS data. (b) During startup and shutdown conditions, the carbon monoxide emission rate for the boiler shall be limited to 144.7 lbs/hr as averaged over any consecutive 24-hour period.	EU01	PSD Permit No. 043-149NH09
9.	The particulate matter emission rate for the boiler shall be limited to 0.03 lb/MMBTU heat input and 8.7 lb/hr at all times ^{5,6} .	EU01	PSD Permit No. 043-149NH09
10.	Pinetree-Bethlehem shall not allow fugitive emissions from the facility to exceed 10% opacity at any time.	Facility wide	PSD Permit No. 043-149NH09
11.	Pinetree-Bethlehem shall not cause or allow average opacity from fuel burning devices installed after May 13, 1970 in excess of 20% for any continuous 6-minute period.	EU03, EU04 & EU05	Env-A 2003.02
12.	The particulate matter emissions from fuel burning devices (with heat input rates less than 100 MMBTU/hr) installed on or after January 1, 1985 shall not exceed 0.3 lb/MMBTU.	EU03, EU04 & EU05	Env-A 2003.08 (formerly Env-A 1202.07)
13.	<u>Emergency Generators</u> The emergency generators, including fire pumps, at a stationary source operating less than 500 hours each during any consecutive 12-month period and having combined theoretical potential emissions of NO _x , from all such generators limited to less than 25 tons for any consecutive 12-month period, shall be exempt from the requirements of Env-A 1211.11.	EU03, EU04 & EU05	Env-A 1211.01(j)
14.	Unless otherwise specified in Env-A 2100, the Permittee shall not cause or allow visible fugitive emissions or visible stack emissions to exceed an average of 20 percent opacity for any continuous 6-minute period in any 60-minute period, except where opacity is specified differently for fuel burning devices in Env-A 2000.	EU02	Env-A 2107.01(a) (formerly Env-A 1203.05)
15.	Pinetree-Bethlehem shall take precautions to prevent, abate and control the emission of fugitive dust for those activities described in Env-A 1002.02. Such precautions shall include but are not limited to wetting, covering, shielding or vacuuming.	Facility Wide	Env-A 1002.04

⁴ This device is subject to both the Prevention of Significant Deterioration (PSD) limit of 0.3 lb NO_x/MMBTU and to the NO_x Reasonable Achievable Control Technology (RACT) limit of 0.33 lb/MMBTU (Env-A 1211.04(d) and Env-A 1211.05(d)(5)), although the PSD limit shall take priority as the most stringent federally enforceable limit.

⁵ The boiler is also subject *New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units* (40 CFR 60, subpart Db). NSPS limit for particulate matter is 0.1 lb/MMBTU. However, PSD limit is more stringent.

⁶ The boiler is also subject to Env-A 2003.08 *Particulate Emission Standards from Fuel Burning Devices Installed after January 1, 1985*, which limits the particulate matter emissions to 0.1 lb/MMBTU. PSD limit is more stringent.

Table 5 - Federally Enforceable Operational and Emission Limitations

Item #	Applicable Requirement	Applicable Emission Unit	Regulatory Cite
16.	<p><u>Control of NOx and CO Emissions</u></p> <p>The Permittee shall control CO emissions by varying the total quantity of input combustion air and/or the local distribution of that air into the boiler. The amount of combustion air required to optimize the boiler efficiency and reduce CO emissions is dependent on the wood moisture content and the type of wood, among other factors. The steam generating unit shall be equipped with fuel distribution, overfire air and undergrate air control systems for optimum NO_x and CO emission control.</p>	EU01	Env-A 305 & Env-A 306
17.	<p><u>Accidental Release Program Requirements</u></p> <p>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> <ul style="list-style-type: none"> (a) Identify potential hazards which result from such releases using appropriate hazard assessment techniques; (b) Design and maintain a safe facility; (c) Take steps necessary to prevent releases; and (d) Minimize the consequences of accidental releases that do occur. 	Facility Wide	CAAA 112(r)(1)

C. Emission Reductions Trading Requirements

The Permittee did not request emissions reductions trading in its operating permit application. At this point, DES has not included any permit terms authorizing emissions trading in this permit. All emission reduction trading, must be authorized under the applicable requirements of either Env-A 3000 *Emissions Reductions Credits Trading Program*, or Env-A 3100 *Discrete Emissions Reductions Trading Program* and 42 U.S.C §§7401 et seq. (the “Act”), and must be provided for in this permit.

D. Monitoring and Testing Requirements

The Permittee is subject to the monitoring and testing requirements as contained in Table 6 below:

Table 6 - Monitoring/Testing Requirements					
Item #	Parameter	Method of Compliance	Frequency of Method	Device	Regulatory Cite
1.	Opacity	Continuous Opacity Monitoring System shall be maintained on the ESP outlet. This system shall meet the requirements of 40 CFR 60, Appendix B, Performance Specification 1 and Env-A 808. Determination of compliance with the opacity limits established in item #5 of Table 5 of this permit shall be made by the COMS or, during any COMS downtime, by visible emission readings taken once per shift following the procedures specified in 40 CFR 60, Appendix A, Method 9.	Continuous	EU01	PSD Permit No. 043-149NH09
2.	NO _x	The NO _x CEMS shall meet the requirements of 40 CFR 60, Appendix B, Performance Specification 2 and Env-A 808. Determination of compliance with the NO _x emission limits established in item #7 of Table 5 of this permit shall be made by the NO _x CEMS.	Continuous	EU01	PSD Permit No. 043-149NH09
3.	CO	The CO CEMS shall meet the requirements of 40 CFR 60, Appendix B, Performance Specification 4 and Env-A 808. Determination of compliance with the CO emission limits established in item #8 of Table 5 of this permit shall be made by the facility CO CEMS.	Continuous	EU01	PSD Permit No. 043-149NH09
4.	O ₂	The O ₂ CEMS shall meet the requirements of 40 CFR 60, Appendix B, Performance Specification 3 and Env-A 808.	Continuous	EU01	PSD Permit No. 043-149NH09
5.	Volumetric Flow	Stack Volumetric Flow The stack volumetric flow measuring device shall meet all of the requirements of 40 CFR 60, Appendix B, Performance Specification 6. The stack volumetric flow measuring device combined with the CEMS data for CO and NO _x shall be used to calculate mass emission rates for comparison with the emission standards specified in Table 5. The stack volumetric flow monitor shall meet the following requirements: (a) All differential pressure flow monitors shall have an automatic blow-back purge system installed and in wet stack emissions shall have the capability for drainage of the sensing lines; and (b) The stack flow monitoring system shall have the capability for on-line manual transducer calibration and for a zero check.	Continuous	EU01	Env-A 808.03(d)
6.	Continuous steam flow monitor	Pinetree-Bethlehem shall maintain and operate a continuous steam flow rate monitoring/recording system on the boiler output steam pipe which shall meet all applicable ASME specifications. Calibration of the steam flow transducer shall occur at least once annually in accordance with manufacturer's specifications. If adequate straight length of piping is not available, then in lieu of a measuring system that meets ASME specifications, the owner or operator may use a steam flow rate monitoring system that can be calibrated by instruments installed, maintained and calibrated per ASME specifications or by other methods approved by the DES.	Continuous	EU01	PSD Permit No. 043-149NH09

Table 6 - Monitoring/Testing Requirements					
Item #	Parameter	Method of Compliance	Frequency of Method	Device	Regulatory Cite
7.	Stack Testing Requirements for Total suspended particulate matter (TSP)	<p>Compliance stack testing for particulate matter shall be planned and carried out upon at the frequency specified. The pre-test protocol must be submitted by the facility at least 30 days prior to the commencement of testing.</p> <p>(a) The pre-test report shall contain the following information:</p> <ol style="list-style-type: none"> 1. Calibration methods and sample data sheets; 2. Description of the test methods to be used; 3. Pre-test preparation procedures; 4. Sample collection and analysis methods; 5. Process data to be collected; and 6. Complete test program description. <p>(b) At least 15 days prior to the test date, the facility and any contractor that the facility retains for performance of the test, shall participate in pre-test conference with a Division representative.</p> <p>(c) Emission testing shall be carried out under the observation of a Division representative. Upon commencement of any performance test, the performance test shall not be aborted unless approved by DES.</p> <p>(d) The Permittee shall submit stack test report to DES within 60 days of completion of the actual testing.</p>	Every 5 years, within 90 days of the anniversary of the last stack test ⁷	EU01	40 CFR 70.6(a)(3) & Env-A 802
8.	Minimum Specifications for CEM Systems	<p>The CEMS for Opacity, NO_x, CO and O₂ shall meet the following minimum specifications:</p> <p>(a) A CEM system for measuring gaseous emissions shall average and record the data for each calendar hour;</p> <p>(b) A CEM system for measuring opacity emissions shall average the opacity data to result in consecutive, non-overlapping 6-minute averages;</p> <p>(c) All CEM systems, opacity and gaseous measuring shall:</p> <ol style="list-style-type: none"> 1. Include a means to display instantaneous values of percent opacity and gaseous emissions concentrations; and 2. 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. 	N/A	EU01	Env-A 808.03
9.	QA/QC Plan Requirements	<p>The owner or operator of a source required to operate or maintain an opacity or gaseous CEM system shall:</p> <p>(a) Maintain a quality assurance/quality control (QA/QC) plan, which shall contain written procedures for implementation of its QA/QC program for each CEM system;</p> <p>(b) Review the QA/QC plan and all data generated by its</p>	Annually	EU01	Env-A 808.06

⁷ At the time of this permit issuance, the last stack test for particulate matter was conducted on May 25, 2004.

Table 6 - Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Regulatory Cite
		<p>implementation at least once each year;</p> <p>(c) Revise or update the QA/QC plan, as necessary, based on the results of the annual review, by documenting any changes made to the CEM or changes to any information provided in the monitoring plan;</p> <p>(d) Make the revised QA/QC plan available for on-site review by the Division at any time; and</p> <p>(e) Within 30 days of completion of the annual QA/QC plan review, certify in writing that the Permittee will continue to implement the source's existing QA/QC plan or submit in writing any changes to the plan and the reasons for the change.</p>			
10.	General Audit Requirements	<p>(a) Required quarterly audits shall be done anytime during each calendar quarter, but successive quarterly audits shall occur no more than 4 months apart;</p> <p>(b) Within 30 calendar days following the end of each quarter, the owner or operator of the source shall submit to the Division a written summary report of the results of all required audits that were performed in that quarter, in accordance with the following:</p> <ol style="list-style-type: none"> 1. For gaseous CEM audits, the report format shall conform to that presented in 40 CFR 60, Appendix F, Procedure 1, section 7; 2. For opacity CEM 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" and <p>(c) The Permittee shall notify the Division at least 30 days prior to the performance of a RATA.</p>	Quarterly	EU01	Env-A 808.07
11.	Gaseous CEM Audit Requirements	Audit requirements for gaseous CEM systems shall be performed in accordance with procedures described in 40 CFR 60, Appendix F and Env-A 808.08.	Quarterly	EU01	Env-A 808.08
12.	Opacity CEM Audit Requirements	Audit requirements for opacity CEM systems shall be performed in accordance with procedures described in 40 CFR 60, Appendix B, Specification 1 and Env-A 808.09	Quarterly	EU01	Env-A 808.09
13.	Data Availability Requirements	<p>(a) Pinetree-Bethlehem shall operate the gaseous, volumetric and steam flow CEM systems at all times during operation of the source, except when the stack flow is less than 30,724 DSCFM or during periods of CEM breakdown, repairs, calibration checks, preventive maintenance, and zero/span adjustments. The COMS shall be continuously monitoring and recording opacity data during all periods of operation, regardless of the stack flow rate.</p> <p>(b) The percentage CEM data availability for opacity and all gaseous concentration monitors shall be maintained at a minimum of 90% on a calendar quarter basis.</p> <p>(c) The percentage CEM data availability for opacity and all gaseous</p>	As specified	EU01	Env-A 808.10

Table 6 - Monitoring/Testing Requirements

Item #	Parameter	Method of Compliance	Frequency of Method	Device	Regulatory Cite
		concentration monitors shall be maintained at a minimum of 75% for any calendar month.			
14.	Calculations of CEM Averages	<p><u>Calendar day averages (which is required pursuant to Env-A 808.13(a)(3))</u> shall be calculated as follows:</p> <p>(a) Calendar day average=(Sum of all valid hour lb/hr averages for the calendar day)/(24 hours - hours of CEM system downtime for the day);</p> <p>(b) Calendar day averages shall only be valid for days with 18 or more valid hours of CEM data;</p> <p>(c) A valid hour of CEM data shall be defined as a minimum of 42 minutes collection of CEM readings taken in a calendar hour; and</p> <p>(d) Hours of CEM system downtime shall be defined as the number of calendar hours when the CEM system has not collected data or is out-of-control for greater than 18 minutes for any reason (i.e. audits, CEM system calibration, CEM system failures, etc.)</p> <p>(e) Hours or days when the CEM system has been intentionally shutdown when the facility is not operating shall not be counted as CEM system downtime.</p>	N/A	EU01	40 CFR 60, Appendix B & Env-A 808
15.	Periodic Monitoring	<p>If the indicator ranges specified in Tables 6A and 6B, Item 2 accumulate exceedances over 5% of the rolling 12-month total operating time for PCE1 and PCE2, the Permittee shall prepare and submit a Quality Improvement Plan (QIP) to the Division. The QIP shall include procedures for evaluating the control performance problems. Based on the evaluation, the Permittee shall modify the plan to include procedures for conducting one or more of the following:</p> <p>(a) Improve preventive maintenance practices;</p> <p>(b) Operational changes;</p> <p>(c) Appropriate improvements to control methods;</p> <p>(d) Other steps to improve control performance; and</p> <p>(e) More frequent or improved monitoring.</p>	Continuous	PCE1 & PCE2	40 CFR 64.8

**Table 6A - Compliance Assurance Monitoring (CAM) - 40 CFR 64
Electrostatic Precipitator (ESP) for the control of Particulate Matter**

Indicator	Indicator No. 1 - Secondary Voltage	Indicator No. 2 - Inspection/Maintenance
1. Measurement Approach	Secondary voltage is transmitted through a serial connection which sends the signal to a data acquisition system. Standard voltmeters are used as backup. All three ESP fields must be in operation.	<ul style="list-style-type: none"> a) Inspections shall be conducted according to the I/M checklist; b) Inspections of casing, piping, ducts, and ash conveyor for leaks, abnormal noise, hot spots, and fires; c) Inspection of the ash hopper, high-level probes and remote alarms for correction operation; and d) Maintenance performed as needed.
2. Indicator Range	The indicator range is a secondary voltage between 15 kilovolts and 60 kilovolts for each field, with all three fields of the ESP in operation. Excursions ⁸ trigger an inspection, corrective action, and a reporting requirement.	<p>Failure to perform an inspection triggers a reporting requirement.</p> <p>Failure of mechanical inspections listed in Item 1 above, triggers corrective action, and recordkeeping requirement.</p>
3. Performance Criteria		
a) Data Representativeness	The minimum accuracy of the secondary voltage readings is $\pm 3\%$ of span.	Inspections are performed at the ESP.
b) QA/QC Practices and Criteria	<p>The local secondary voltmeter shall be calibrated annually and the results recorded.</p> <p>The Permittee shall maintain the monitoring equipment at all times, including but not limited to, maintaining necessary parts for routine repair and maintenance.</p>	Inspections shall be conducted by qualified personnel.
c) Monitoring Frequency	The secondary voltage shall be recorded once per shift.	<ul style="list-style-type: none"> a) Annual inspection according to the I/M checklist; b) Once per shift inspections shall include inspections of casing, piping, ducts, and ash conveyor for leaks, abnormal noise, hot spots, and fires; and c) Annual inspections shall include inspection of the ash hopper, high-level probes and remote alarms for correction operation.
i) Data Collection Procedure	Records to be maintained on standard operating logs.	Record results of all inspection and maintenance in a logbook.
ii) Averaging Period	NA	NA

⁸ Excursion shall mean a departure from an indicator range established for monitoring under 40 CFR 64, consistent with any averaging period specified for averaging the results of the monitoring.

Table 6B - Compliance Assurance Monitoring (CAM) - 40 CFR 64 Multiclone for the control of Particulate Matter		
Indicator	Indicator No. 1 - Pressure differential across the multiclone	Indicator No. 2 - Inspection/Maintenance
1. Measurement Approach	Measurement of pressure using a pressure transmitter to data acquisition system.	a) Inspections shall be conducted according to the I/M checklist including inspection of the inlet and outlet vanes and boots for any buildup of caked dust; b) Inspections of the multiclone shall include checking for any apparent abnormalities or damage that would cause air leakage into the unit; and c) Maintenance performed as needed.
2. Indicator Range	The indicator range is a pressure differential reading between 2" and 8" of water column. Excursions trigger an inspection, corrective action, and a reporting requirement.	Failure to perform an inspection triggers a reporting requirement. Failure of mechanical inspections listed in Item 1 above, triggers corrective action, and recordkeeping requirement.
3. Performance Criteria		
a) Data Representativeness	The pressure transmitter is located at the inlet and outlet of multiclone. The minimum accuracy of the transmitter is ± 0.5 inches of water column.	Inspections are performed at the multiclone.
b) QA/QC Practices and Criteria	The pressure transmitter shall be calibrated annually.	Inspections shall be conducted by qualified personnel.
c) Monitoring Frequency	Pressure drop shall be recorded once per shift.	a) Annual inspection according to the I/M checklist including inspection of the inlet and outlet vanes and boots for any buildup of caked dust; and b) Daily Inspections of the multiclone shall include checking for any apparent abnormalities or damage that would cause air leakage into the unit.
i) Data Collection Procedure	Records to be maintained on standard operating logs.	Record results of all inspection and maintenance in a logbook.
ii) Averaging Period	NA	NA

E. Recordkeeping Requirements

The Permittee shall be subject to the recordkeeping⁹ requirements identified in Table 7 below:

Table 7 - Applicable Recordkeeping Requirements				
Item #	Applicable Recordkeeping Requirement	Records Retention/ Frequency	Applicable Emission Unit	Regulatory Cite
1.	The Permittee shall retain records of all required monitoring data, recordkeeping and reporting requirements, and support information for a period of at least 5 years from the date of origination.	Retain for a minimum of 5 years	Facility Wide	40 CFR 70.6(a)(3)(ii)(B)
2.	<u>Monitoring Data</u> The Permittee shall maintain records of monitoring requirements as specified in Table 6 of this Permit including: (a) Summary of maintenance and repair records for pollution control equipment listed in Table 3. (b) Summary of maintenance and repair records of the CEMS, COMS and stack volumetric flow measuring device; and (c) Summary of maintenance, calibration and repair records associated with steam flow measuring device.	Maintain on a continuous basis	EU01	40 CFR 70.6(a)(3)(iii)(A)
3.	To meet the requirements of item #4 of Table 5, the facility shall record the number of hours that the facility is operated in startup or shutdown modes, the total number of hours of operation and the total number of hours that the facility is down for maintenance and repairs. This information shall be used to demonstrate that the number of hours that the boiler operates in a startup or shutdown mode does not exceed 15% of the total operating hours of the plant.	Maintain on a continuous basis	EU01	Env-A 906.01
4.	<u>General Recordkeeping Requirements for Sources with Continuous Emissions Monitoring Systems</u> The Permittee shall maintain records for the continuous emission monitoring systems in accordance with Env-A 800 and all applicable federal regulations.	Maintain on a continuous basis	EU01	Env-A 903.04
5.	<u>Records on Fuel Utilization</u> For each fuel burning device at the facility, the Permittee shall keep records of fuel utilization in accordance with the following: (a) Consumption; (b) Fuel type; (c) Viscosity (for liquid fuels); (d) Btu content (lb/gal or lb/ton wood chips); and	Monthly	Facility Wide	Env-A 901.03 Federally Enforceable

⁹ On April 23, 1999, DES promulgated new Env-A 900 regulations in an attempt to streamline the recordkeeping and reporting requirements Sections of the New Hampshire Code of Administrative Rules. Until such time that the new Env-A 900 regulations are approved and adopted into the State Implementation Plan (SIP) by EPA, all Title V permits will be incorporating the old Env-A 900 regulations (which became effective on November 11, 1992), unless the new Env-A 900 regulations are more stringent. The recordkeeping and reporting requirements contained in this permit are those requirements, which the facility shall be required to comply with. These recordkeeping and reporting requirements shall fall under the Permit Shield provisions as contained in Section XIII of this permit.

Table 7 - Applicable Recordkeeping Requirements				
Item #	Applicable Recordkeeping Requirement	Records Retention/ Frequency	Applicable Emission Unit	Regulatory Cite
	(e) Estimated amount in tons (wet basis) of wood chips consumed per month and a consecutive twelve month total.			
6.	The Permittee shall maintain daily records of the amount of fuel combusted in the boiler.	Daily	EU01	40 CFR 60.49b(d)
7.	The Permittee shall maintain annual records of actual emissions for each significant and insignificant activity for determination of emission based fees.	Maintain at facility at all times	Facility wide	Env-A 705.03 (formerly Env-A 704.03)
8.	<p><u>NO_x Recordkeeping Requirements</u></p> <p>For fuel burning devices, including boilers and internal combustion engines, the following information shall be recorded and maintained:</p> <p>(a) Facility information, including:</p> <ol style="list-style-type: none"> 1. Source name; 2. Source identification; 3. Physical address; 4. Mailing address; and 5. A copy of the certificate of accuracy required to be maintained pursuant to Env-A 901.08(b). <p>(b) Identification of each fuel burning device;</p> <p>(c) Operating schedule information for each fuel burning device identified in b), above, including:</p> <ol style="list-style-type: none"> 1. Days per calendar week during the normal operating schedule; 2. Hours per day during the normal operating schedule and for a typical ozone season day, if different from the normal operating schedule; and 3. Hours per year during the normal operating schedule. <p>(d) Type, and amount of fuel burned, for each fuel burning device, during normal operating conditions and for a typical ozone season day, if different from normal operating conditions, on an hourly basis in million Btu's per hour;</p> <p>(e) The following NO_x emission data, including records of total annual emissions, in tons per year, and typical ozone season day emissions, in pounds per day;</p> <ol style="list-style-type: none"> 1. Theoretical potential emissions for the calculation year for each fuel burning device; and 2. Actual NO_x emissions for each fuel-burning device. 	On a continuous basis	Facility Wide	Env-A 901.08 Federally Enforceable

Table 7 - Applicable Recordkeeping Requirements				
Item #	Applicable Recordkeeping Requirement	Records Retention/ Frequency	Applicable Emission Unit	Regulatory Cite
9.	<u>Quality Improvement Plan</u> The Permittee shall prepare and submit to DES a QIP when the conditions in Table 6, Item 15 are met.	Initially within 180 days of becoming subject to this condition. Maintain on a continuous basis	PCE1 & PCE2	40 CFR 64.8

F. Reporting Requirements

The Permittee shall be subject to the reporting requirements⁷ identified in Table 8 below:

Table 8 - Applicable Reporting Requirements				
Item #	Reporting Requirements	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
1.	Any report submitted to the DES and/or EPA shall include the certification of accuracy statement outlined in Section XXI.B. of this Permit and shall be signed by the responsible official.	As specified in Section XXI. B.	Facility Wide	40 CFR 70.6(c)(1)
2.	<u>Semi-annual Permit Deviation and Monitoring Report</u> The Permittee shall submit a summary report of the monitoring and permit deviations including: (a) Summary of maintenance and repair records for the pollution control devices, CEMS, COMS, stack volumetric flow measuring device and the steam flow measuring device; (b) Permit deviations; (c) Summary information on the number, duration and cause of excursions from permit conditions and the corrective actions taken; and (d) Summary information on the number, duration and cause for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks).	Semiannually (by July 31 st and January 31 st)	Facility Wide	40 CFR 70.6(a)(3)(iii)(A) & 40 CFR 64.9(a)(2)
3.	<u>Emission Reports</u> The Permittee shall submit quarterly emission reports containing the following information: (a) Excess emission data recorded by the CEM system, including: 1. The date and time of the beginning and ending of each period of excess emission; 2. The magnitude of each excess emission; 3. The specific cause of the excess emission; and 4. The corrective action taken.	Quarterly (no later than 30 days following the end of each quarterly reporting period)	EU01	Env-A 808.11 & Env-A 808.13

Table 8 - Applicable Reporting Requirements

Item #	Reporting Requirements	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
	<p>(b) If no excess emissions have occurred, a statement to that effect;</p> <p>(c) For gaseous measuring CEM systems, the daily averages of the measurements made and emission rates calculated;</p> <p>(d) Daily average steam production rate;</p> <p>(e) A statement as to whether the CEM system was inoperative, repaired, or adjusted during the reporting period;</p> <p>(f) If the CEM system was inoperative, repaired, or adjusted during the reporting period, the following information:</p> <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 inoperative; 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. <p>(g) For all "out of control periods" the following information:</p> <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. <p>(h) The date and time beginning and ending each period when the source of emissions which the CEM system is monitoring was not operating.</p> <p>(i) The span value, as defined in Env-A 101.255, of each analyzer in the CEM system and units of measurement for each instrument; and</p> <p>(j) When calibration gas is used, the following information:</p> <ol style="list-style-type: none"> 1. The 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. 			
4.	<p><u>NO_x Reporting Requirements</u></p> <p>For fuel burning devices, the Permittee shall submit to the Director, annually (no later than April 15th of the following year), a report of data required by item #8 of Table 7, including total annual quantities of all NO_x emissions.</p>	Annually (no later than April 15 th of the following year)	Facility Wide	Env-A 901.09 Federally Enforceable

Table 8 - Applicable Reporting Requirements

Item #	Reporting Requirements	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
5.	<p><u>Emission Based Fees Report</u></p> <p>Annual reporting of emission based fees shall be conducted in accordance with Section XXIII of this Permit. The owner or operator of a stationary source, an area source, or device having actual emissions of 1,000 tons or less shall pay to the Department the annual emission-based fee no later than:</p> <p>(a) By July 15, 2005 for emissions from calendar year 2004; and</p> <p>(b) By April 15 each subsequent year for emissions from the previous calendar year.</p>	As specified	Facility Wide	Env-A 705.04
6.	Prompt reporting of deviations from Permit requirements shall be conducted in accordance with Section XXVIII of this Permit.	Prompt reporting (within 24 hours of an occurrence)	Facility Wide	40 CFR 70.6(a)(3)(iii)(B)
7.	Annual compliance certification shall be submitted in accordance with Section XXI of this Permit.	Annually (no later than April 15 th of the following year)	Facility Wide	40 CFR 70.6(c)(1)
8.	<p><u>Quality Improvement Plan Submittal</u></p> <p>The Permittee shall submit to DES the QIP required in Table 7, Item 9 and notify DES if submittal will exceed 180 days from the day the source becomes subject to the permit condition.</p>	As expeditiously as practicable	PCE1 & PCE2	40 CFR 64.8

IX. Requirements Currently Not Applicable

Requirements not currently applicable to the facility were not identified by the Permittee.

General Title V Operating Permit Conditions

X. Issuance of a Title V Operating Permit

- A. This Permit is issued in accordance with the provisions of Env-A 609. In accordance with 40 CFR 70.6(a)(2), this Permit shall expire on the date specified on the cover page of this Permit, which shall not be later than the date five (5) years after issuance of this Permit.
- B. Permit expiration terminates the Permittee's right to operate the Permittee's emission units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

XI. Title V Operating Permit Renewal Procedures

Pursuant to Env-A 609.07(b), an application for renewal of this Permit shall be considered timely if it is submitted to the Director at least six months prior to the designated expiration date of this Permit.

XII. Application Shield

Pursuant to Env-A 609.08, if an applicant submits a timely and complete application for the issuance or renewal of a Permit, the failure to have a Permit shall not be considered a violation of this part until the Director takes final action on the application.

XIII. Permit Shield

- A. Pursuant to Env-A 609.09(a), a permit shield shall provide that:
 - 1. For any applicable requirement or any state requirement found in the New Hampshire Rules Governing the Control of Air Pollution specifically included in this Permit, compliance with the conditions of this Permit shall be deemed compliance with said applicable requirement or said state requirement as of the date of permit issuance; and
 - 2. The Permittee need not comply with any applicable requirement or state requirement found in the New Hampshire Rules Governing the Control of Air Pollution and specifically identified in Section IX of this Title V Operating Permit as not applicable to the stationary source or area source.
- B. The permit shield identified in Section XIII.A. of this Permit shall apply only to those conditions incorporated into this Permit in accordance with the provisions of Env-A 609.09(b). It shall not apply to certain conditions as specified in Env-A 609.09(c) that may be incorporated into this Permit following permit issuance by DES.
- C. If a Title V Operating Permit and amendments thereto issued by the DES does not expressly include or exclude an applicable requirement or a state requirement found in the New Hampshire Rules Governing the Control of Air Pollution, that applicable requirement or state requirement shall not be covered by the permit shield and the Permittee shall comply with the provisions of said requirement to the extent that it applies to the Permittee.
- D. If the DES determines that this Title V Operating Permit was issued based upon inaccurate or incomplete information provided by the applicant or Permittee, any permit shield provisions in said Title V Operating Permit shall be void as to the portions of said Title V

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Operating Permit which are affected, directly or indirectly, by the inaccurate or incomplete information.

- E. Pursuant to Env-A 609.09(f), nothing contained in Section XIII of this Permit shall alter or affect the ability of the DES to reopen this Permit for cause in accordance with Env-A 609.19 or to exercise its summary abatement authority.
- F. Pursuant to Env-A 609.09(g), nothing contained in this section or in any title V operating permit issued by the DES shall alter or affect the following:
 - 1. The ability of the DES to order abatement requiring immediate compliance with applicable requirements upon finding that there is an imminent and substantial endangerment to public health, welfare, or the environment;
 - 2. The state of New Hampshire's ability to bring an enforcement action pursuant to RSA 125-C:15,II;
 - 3. The provisions of section 303 of the CAA regarding emergency orders including the authority of the EPA Administrator under that section;
 - 4. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - 5. The applicable requirements of the acid rain program, consistent with section 408(a) of the CAA;
 - 6. The ability of the DES or the EPA Administrator to obtain information about a stationary source, area source, or device from the owner or operator pursuant to section 114 of the CAA; or
 - 7. The ability of the DES or the EPA Administrator to enter, inspect, and/or monitor a stationary source, area source, or device.

XIV. Reopening for Cause

The Director shall reopen and revise a Title V Operating Permit for cause if any of the circumstances contained in Env-A 609.19(a) exist. In all proceedings to reopen and reissue a Title V Operating Permit, the Director shall follow the provisions specified in Env-A 609.19(b) through (g).

XV. Administrative Permit Amendments

- A. Pursuant to Env-A 612.01, the Permittee may implement the changes addressed in the request for an administrative permit amendment as defined in Env-A 101 immediately upon submittal of the request.
- B. Pursuant to Env-A 612.01, the Director shall take final action on a request for an administrative permit amendment in accordance with the provisions of Env-A 612.01(b) and (c).

XVI. Operational Flexibility

- A. Pursuant to Env-A 612.02, the Permittee subject to and operating under this Title V Operating Permit may make changes involving trading of emissions, off-permit changes, and section 502(b)(10) changes at the permitted stationary source or area source without filing a Title V Operating Permit application for and obtaining an amended Title V Operating Permit, provided that all of the following conditions are met, as well as

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conditions specified in Section XVI. B through E of this permit, as applicable. At this point, DES has not included any permit terms authorizing emissions trading in this permit.

1. The change is not a modification under any provision of Title I of the CAA;
 2. The change does not cause emissions to exceed the emissions allowable under the Title V operating permit, whether expressed therein as a rate of emissions or in terms of total emissions;
 3. The owner or operator has obtained any temporary permit required by Env-A 600;
 4. The owner or operator has provided written notification to the director and administrator of the proposed change and such written notification includes:
 - a. The date on which each proposed change will occur;
 - b. A description of each such change;
 - c. Any change in emissions that will result;
 - d. A request that the operational flexibility procedures be used; and
 - e. The signature of the responsible official, consistent with Env-A 605.04(b);
 5. The change does not exceed any emissions limitations established under any of the following:
 - a. The New Hampshire Code of Administrative Rules, Env-A 100-3800;
 - b. The CAA; or
 - c. This Title V Operating Permit; and
 6. The Permittee, DES, and EPA have attached each written notice required above to their copy of this Title V Operating Permit.
- B. For changes involving the trading of emissions, the Permittee must also meet the following conditions:
1. The Title V Operating Permit issued to the stationary source or area source already contains terms and conditions including all terms and conditions which determine compliance required under 40 CFR 70.6(a) and (c) and which allow for the trading of emissions increases and decreases at the permitted stationary source or area source solely for the purpose of complying with a federally-enforceable emissions cap that is established in the permit independent of otherwise applicable requirements;
 2. The owner or operator has included in the application for the Title V Operating Permit proposed replicable procedures and proposed permit terms which ensure that the emissions trades are quantifiable and federally enforceable for changes to the Title V Operating Permit which qualify under a federally- enforceable emissions cap that is established in the Title V Operating Permit independent of the otherwise applicable requirements;
 3. The Director has not included in the emissions trading provision any devices for which emissions are not quantifiable or for which there are no replicable procedures to enforce emissions trades; and
 4. The written notification required above is made at least 7 days prior to the proposed change and includes a statement as to how any change in emissions will comply with the terms and conditions of the Title V Operating Permit.

- C. For off-permit changes, the Permittee must also meet the following conditions:
1. Each off-permit change meets all applicable requirements and does not violate any existing permit term or condition;
 2. The written notification required above is made contemporaneously with each off-permit change, except for changes that qualify as insignificant under the provisions of Env-A 609.04;
 3. The change is not subject to any requirements under Title IV of the CAA and the change is not a Title I modification;
 4. The Permittee keeps a record describing the changes made at the source which result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this Permit, and the emissions resulting from those changes; and
 5. The written notification required above includes a list of the pollutants emitted and any applicable requirement that would apply as a result of the change.
- C. For section 502(b)(10) changes, the Permittee must also meet the following conditions:
1. The written notification required above is made at least 7 days prior to the proposed change; and
 2. The written notification required above includes any permit term or condition that is no longer applicable as a result of the change.
- D. Pursuant to Env-A 612.02(f), the off-permit change and section 502(b)(10) change shall not qualify for the permit shield under Env-A 609.09.

XVII. Minor Permit Amendments

- A. Prior to implementing a minor permit modification, the Permittee shall submit a written request to the Director in accordance with the requirements of Env-A 612.05(b).
- B. The Director shall take final action on the minor permit amendment request in accordance with the provisions of Env-A 612.05(c) through (g).
- C. Pursuant to Env-A 612.05(h), the permit shield specified in Env-A 609.09 shall not apply to minor permit amendments under Section XVII. of this Permit.
- D. Pursuant to Env-A 612.05(a), the Permittee shall be subject to the provisions of RSA 125-C:15 if the change is made prior to the filing with the Director of a request for a minor permit amendment.

XVIII. Significant Permit Amendments

- A. Pursuant to Env-A 612.06, a change at the facility shall qualify as a significant permit amendment if it meets the criteria specified in Env-A 612.06(a)(1) through (5).
- B. Prior to implementing the significant permit amendment, the Permittee shall submit a written request to the Director which includes all the information as referenced in Env-A 612.06(b) and (c) and shall be issued an amended Title V Operating Permit from the DES. The Permittee shall be subject to the provisions of RSA 125-C:15 if a request for a significant permit amendment is not filed with the Director and/or the change is made prior to the issuance of an amended Title V Operating Permit.

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- C. The Director shall take final action on the significant permit amendment in accordance with the Procedures specified in Env-A 612.06(d), (e) and (f).

XIX. Title V Operating Permit Suspension, Revocation or Nullification

- A. Pursuant to RSA 125-C:13, the Director may suspend or revoke any final permit issued hereunder if, following a hearing, the Director determines that:
1. The Permittee 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 Director 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.

XX. Inspection and Entry

EPA and DES 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 New Hampshire Rules Governing the Control of Air Pollution and/or conditions of any Permit issued pursuant to Chapter Env-A 600.

XXI. Certifications

- A. Compliance Certification Report

In accordance with 40 CFR 70.6(c) the Responsible Official shall certify for the previous calendar year that the facility is in compliance with the requirements of this permit. The report shall be submitted annually, no later than April 15th of the following year. The report shall be submitted to the DES and to the U.S. Environmental Protection Agency – Region I. The report shall be submitted in compliance with the submission requirements below.

In accordance with 40 CFR 70.6(c)(5), the report shall describe:

1. The terms and conditions of the Permit that are the basis of the certification;
 2. The current compliance status of the source with respect to the terms and conditions of this Permit, and whether compliance was continuous or intermittent during the reporting period;
 3. The methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
 4. Any additional information required by the DES to determine the compliance status of the source.
- B. Certification of Accuracy Statement

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All documents submitted to the DES shall contain a certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in accordance with the requirements of 40 CFR 70.5(d) and contain the following language:

"I am authorized to make this submission on behalf of the facility for which the submission is made. Based on information and belief formed after reasonable inquiry, I certify that the statements and information in the enclosed documents are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

All reports submitted to DES (except those submitted as emission based fees as outlined in Section XXIII 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: Section Supervisor, Compliance Bureau

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

Office of Environmental Stewardship
Director Air Compliance Program
United States Environmental Protection Agency
1 Congress Street
Suite 1100 (SEA)
Boston, MA 02114-2023
ATTN: Air Compliance Clerk

XXII. Enforcement

Any noncompliance with a permit condition constitutes a violation of RSA 125-C:15, and, as to the conditions in this permit which are federally enforceable, a violation of the Clean Air Act, 42 U.S.C. Section 7401 et seq., and is grounds for enforcement action, for permit termination or revocation, or for denial of an operating permit renewal application by the DES and/or EPA. Noncompliance may also be grounds for assessment of administrative, civil or criminal penalties in accordance with RSA 125-C:15 and/or the Clean Air Act. This Permit does not relieve the Permittee from the obligation to comply with any other provisions of RSA 125-C, the New Hampshire Rules Governing the Control of Air Pollution, or the Clean Air Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this Permit.

In accordance with 40 CFR 70.6 (a)(6)(ii), a Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

XXIII. Emission-Based Fee Requirements

- A. The Permittee shall pay an emission-based fee annually for this facility as calculated each calendar year pursuant to Env-A 705.03.
- B. The Permittee shall determine the total actual annual emissions from the facility to be included in the emission-based multiplier specified in Env-A 705.03(a) for each calendar year in accordance with the methods specified in Env-A 616.
- C. The Permittee 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:

$$FEE = E * DPT * CPI_m * ISF$$

Where:

- FEE = The annual emission-based fee for each calendar year as specified in Env-A 705.
- E = The calculation of total annual emissions as specified in Env-A 705.02 and the provisions specified in Env-A 705.03(a).
- DPT = The dollar per ton fee the DES has specified in Env-A 705.03(b).
- CPI_m = The Consumer Price Index Multiplier as calculated in Env-A 705.03(c).
- ISF = The Inventory Stabilization Factor as specified in Env-A 705.03(d).
- D. The Permittee shall contact the DES each calendar year for the value of the Inventory Stabilization Factor.
- E. The Permittee shall contact the DES each calendar year for the value of the Consumer Price Index Multiplier.
- F. The Permittee shall submit, to the DES, payment of the emission-based fee and a summary of the calculations referenced in Sections XXIII.B. and C of this Permit for each calendar year no later than:
 - 1. July 15, 2005 for emissions from calendar year 2004; and
 - 2. April 15 each subsequent year for the emissions from the previous calendar year. The emission-based fee and summary of the calculations shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
P.O. Box 95
Concord, NH 03302-0095
ATTN.: Emissions Inventory
- G. The DES shall notify the Permittee of any under payments or over payments of the annual emission-based fee in accordance with Env-A 705.05.

XXIV. Duty To Provide Information

In accordance with 40 CFR 70.6 (a)(6)(v), upon the DES's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee shall furnish to the DES copies of records that the Permittee is required to retain by this Permit. The Permittee may make a claim of confidentiality as to any information submitted pursuant to this condition in accordance with Env-A 103 at the

time such information is submitted to DES. DES shall evaluate such requests in accordance with the provisions of Env-A 103.

XXV. Property Rights

Pursuant to 40 CFR 70.6 (a)(6)(iv), this Permit does not convey any property rights of any sort, or any exclusive privilege.

XXVI. Severability Clause

Pursuant to 40 CFR 70.6 (a)(5), the provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

XXVII. Emergency Conditions

Pursuant to 40 CFR 70.6 (g), the Permittee shall be shielded from enforcement action brought for noncompliance with technology based¹⁰ emission limitations specified in this Permit as a result of an emergency¹¹. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

- A. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
- B. The permitted facility was at the time being properly operated;
- C. During the period of the emergency, the Permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this Permit; and
- D. The Permittee submitted notice of the emergency to the DES within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

XXVIII. Permit Deviation

In accordance with 40 CFR 70.6(a)(3)(iii)(B), the Permittee shall report to the DES all instances of deviations from Permit requirements, by telephone, fax, or e-mail (pdeviations@des.state.nh.us) within 24 hours of discovery of such deviation. This report shall include the deviation itself, including those attributable to upset conditions as defined in this Permit, the probable cause of such deviations, and any corrective actions or preventative measures taken.

¹⁰ Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

¹¹ An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

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Within 10 days of discovery of the permit deviation, the Permittee shall submit a written report including the above information as well as the following: preventive measures taken to prevent future occurrences; date and time the permitted device returned to normal operation; specific device, process or air pollution control equipment that contributed to the permit deviation; type and quantity of excess emissions emitted to the atmosphere due to permit deviation; and an explanation of the calculation or estimation used to quantify excess emissions.

Said Permit deviation shall also be submitted in writing to the DES in the semi-annual summary report of monitoring and testing requirements due July 31st and January 31st of each calendar year. Deviations are instances where any Permit condition is violated and has not already been reported as an emergency pursuant to Section XXVII. of this Permit.

Reporting a Permit deviation is not an affirmative defense for action brought for noncompliance.

October 17, 2005

ATTACHMENT B

RECEIVED FEB 5 1986

INTERCONNECTION AGREEMENT

AGREEMENT, dated , *January 16,* 1986, by and between PINETREE POWER, INC. a New Hampshire Corporation with its principal place of business in Concord, New Hampshire (hereinafter referred to as INTERCONNECTOR), and PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, a New Hampshire corporation having its principal place of business in Manchester, New Hampshire (hereinafter referred to as PUBLIC SERVICE).

WHEREAS, INTERCONNECTOR desires to interconnect their Bethlehem Station wood-fired generating facility, located in Bethlehem, New Hampshire, with the electric system of PUBLIC SERVICE in accordance with applicable New Hampshire Public Utilities Commission (hereinafter referred to as NHPUC) Orders; and

WHEREAS, the NHPUC requires that a written interconnection agreement be executed between the parties; and

WHEREAS, it is necessary that certain agreements be made prior to interconnection and the commencement of sales of electricity to insure the safety, reliability and integrity of PUBLIC SERVICE's electric system, and to establish a mechanism of payment of the rate established by the NHPUC, the parties hereby agree as follows:

Article 1. Interconnection and Voltage Characteristics.

The interconnection point shall be that point at which INTERCONNECTOR's generating facility interconnects with the 34.5 kV electric system of PUBLIC SERVICE.

Unless PUBLIC SERVICE converts its interconnection circuit, all electric energy interconnected with PUBLIC SERVICE's system shall be 34.5 kV, three-phase, sixty hertz.

Article 2. Metering.

The metering shall be configured so as to represent the generation delivered to PUBLIC SERVICE. The metering may be installed on the generation side of the transformer provided that transformer losses are subtracted from the measured generation by a suitable method.

INTERCONNECTOR will install, own, and maintain all metering equipment as referenced in Article 4, to measure the flow of electrical energy from INTERCONNECTOR to PUBLIC SERVICE. If at any time, the meter is found to be in error by more than two percent fast or slow (+ or - 2%), INTERCONNECTOR shall cause such meter to be corrected and the meter readings for the period of inaccuracy shall be adjusted to correct such inaccuracy so far as the same can be reasonably ascertained, but no adjustment prior to the beginning of the preceding month shall be made except by agreement of the parties. All tests and calibrations shall be made in accordance with Section V-14 of the NHPUC Rules and Regulations Prescribing Standards for Electric Utilities in effect as of September 8, 1972, as amended. The meter shall be tested as prescribed in said Rules and Regulations.

In addition to the regular routine tests, INTERCONNECTOR shall cause the meter to be tested at any time upon request of and in the presence of a representative of PUBLIC SERVICE. If such equipment proves accurate within two percent fast or slow (+ or - 2%), the expense of the test shall be borne by PUBLIC SERVICE.

PUBLIC SERVICE reserves the right to secure or seal the metering installation, to require INTERCONNECTOR to measure electrical energy sold to PUBLIC SERVICE on an hour-by-hour basis, and to require INTERCONNECTOR to notify PUBLIC SERVICE once each day of INTERCONNECTOR's generation in kilowatthours for each hour during the prior 24 hours.

Article 3. Billing and Payment.

PUBLIC SERVICE shall read the meter on or about the end of each month and shall promptly send INTERCONNECTOR a form showing the month's beginning and ending meter readings and net kwh generation. INTERCONNECTOR shall then transmit to PUBLIC SERVICE a bill showing the amount due for the sale of energy to PUBLIC SERVICE, which amount shall be determined by multiplying the number of kWh's of energy delivered to PUBLIC SERVICE since the prior reading of the meter times the energy rate per kwh (or times the appropriate time-of-day rates, as applicable) set forth in INTERCONNECTOR's rate filing approved by the NHPUC and is, or will be when available, attached hereto as Attachment A.

INTERCONNECTOR shall also include on said bill the appropriate capacity payment, if any, to be made by PUBLIC SERVICE, as approved by the NHPUC. PUBLIC SERVICE will send to INTERCONNECTOR a payment for that amount within 20 days of receipt of INTERCONNECTOR's bill. The foregoing is intended to provide a procedure for the payment of rates established by the NHPUC, and shall not be construed as creating a separate contractual obligation on the part of PUBLIC SERVICE to pay the rate(s) approved by the NHPUC.

INTERCONNECTOR understands that any capacity payments are contingent upon an audit of the generating facility performed by the NHPUC and that INTERCONNECTOR must request the NHPUC to perform said audit.

Article 4. Interconnection & Protection Requirements.

The INTERCONNECTOR shall install all interconnection, protection, metering, and control equipment as specified in PUBLIC SERVICE's study of the INTERCONNECTOR's electric generating facility, which study is, or will be upon mutual consent of both parties, attached hereto as Attachment B and any other such equipment which may be necessary to ensure the safe and reliable operation of INTERCONNECTOR's generating unit in parallel with PUBLIC SERVICE's system. INTERCONNECTOR shall bear all costs associated with said equipment and its installation, including those costs associated with PUBLIC SERVICE's study of the INTERCONNECTOR's electric generating facility. Prior to the aforementioned study, one half of PUBLIC SERVICE's estimated costs of the study shall be paid to PUBLIC SERVICE prior to beginning the study. The balance, based on actual costs incurred, shall be due upon completion of the study.

Up to the interconnection point, all said interconnection, protection, metering, and control equipment including, but not limited to, line extensions, transformers, meters, relays, breakers, and appurtenant equipment shall remain the sole property of INTERCONNECTOR.

INTERCONNECTOR shall have sole responsibility for the operation, maintenance, and repair of its generating unit, including the interconnection, protection, metering, and control equipment. INTERCONNECTOR shall maintain, repair, or replace said generating unit including said equipment whenever necessary for the safe and reliable operation of INTERCONNECTOR's electric facility in parallel with PUBLIC SERVICE's system.

In addition to the above, upon the effective date of this Agreement, and every twelve months thereafter, the INTERCONNECTOR shall test, or cause to be tested, all protection devices including verification of calibration and tripping functions; and the INTERCONNECTOR shall notify PUBLIC SERVICE in writing that said tests have been conducted. INTERCONNECTOR shall notify PUBLIC SERVICE of any defect affecting the safety or reliability of said equipment not later than two hours after its discovery of the same.

If either party reasonably determines that the operation or use of any portion of the protection system, as required in this Article, will or may not perform its protective function, including but not limited to opening the interconnecting tie, INTERCONNECTOR shall open the interconnection between PUBLIC SERVICE's system and INTERCONNECTOR's facility. INTERCONNECTOR shall notify PUBLIC SERVICE not more than two days after it has opened said interconnection. PUBLIC SERVICE shall not be obligated to receive electrical energy from INTERCONNECTOR and the interconnection shall remain open, until INTERCONNECTOR has satisfactorily cured said defect at no cost to PUBLIC SERVICE.

Article 5. Right of Access.

Upon prior written or oral notice to INTERCONNECTOR, PUBLIC SERVICE shall have the right to enter the property of INTERCONNECTOR at reasonable times and shall be provided access to INTERCONNECTOR's metering, protection, control, and interconnection equipment.

Article 6. Modification of Facility.

If INTERCONNECTOR plans any modifications to its electric facility, INTERCONNECTOR shall give PUBLIC SERVICE prior written notice of its intentions. In the event that PUBLIC SERVICE reasonably determines that said modifications would necessitate changes to the interconnection, protection, control, or metering equipment or would cause PUBLIC SERVICE to incur additional expenses associated therewith, the INTERCONNECTOR shall make such changes as reasonably required by PUBLIC SERVICE and reimburse PUBLIC SERVICE for said expenses before PUBLIC SERVICE is obligated to purchase any increased output.

If the PUBLIC SERVICE interconnecting circuit is converted to a higher voltage in the future, the INTERCONNECTOR shall be responsible for all interconnection changes necessitated by the conversion and shall bear all costs associated with said conversion.

Article 7. Liability & Insurance.

- a. Each party will be responsible for its facilities and the operation thereof and will indemnify and save the other harmless from any and all loss by reason of property damage, bodily injury, including death resulting therefrom suffered by any person or persons including the parties hereto, employees thereof or members of the public, (and all expenses in connection therewith, including attorney's fees) whether arising in agreement, warranty, tort (including negligence), strict liability or otherwise, caused by or sustained on, or alleged to be caused by or sustained on, equipment or facilities, or the operation or use thereof, owned or controlled by such party, except that each party shall be solely responsible for and shall bear all costs of claims by its own employees or contractors growing out of any workmen's compensation law.
- b. INTERCONNECTOR hereby agrees to maintain in force and effect, for the duration of this Agreement, Workmen's Compensation Insurance, as required by statute, and Comprehensive General Liability Insurance for bodily injury and property damage at minimum limits of three million dollars (\$3,000,000). At least sixty days prior to the actual, physical interconnection of the facility, the INTERCONNECTOR agrees to provide PUBLIC SERVICE with a certificate of insurance evidencing such coverage.
- c. In no event shall INTERCONNECTOR or PUBLIC SERVICE be liable, whether in agreement, tort (including negligence), strict liability, warranty, or otherwise, for any special, indirect, incidental, or consequential loss or damage, including but not limited to cost of capital, cost of replacement power, loss of profits or revenues or the loss of the use thereof. This provision, Article 7, subsection c, shall apply notwithstanding any other provision of this Agreement.

Article 8. Force Majeure.

Either party shall not be considered to be in default hereunder and shall be excused from interchanging electricity hereunder if and to the extent that it shall be prevented from doing so by storm, flood, lightning, earthquake, explosion, equipment failure, civil disturbance, labor dispute, act of God or the public enemy, action of a court or public authority, withdrawal of facilities from operation for necessary maintenance and repair, or any cause beyond the reasonable control of either party.

Article 9. Termination.

PUBLIC SERVICE may not terminate this Agreement during such time as its obligations as set forth in the Limited Electrical Energy Producers Act or Public Utility Regulatory Policies Act remains unchanged and in force, except that PUBLIC SERVICE may terminate this Agreement should INTERCONNECTOR fail to substantially perform in accordance with the terms of this Agreement.

The INTERCONNECTOR may terminate this Interconnection Agreement in accordance with the provisions established by the New Hampshire Public Utilities Commission in their applicable orders.

After termination, both parties shall be discharged from all further obligation under the term of this Agreement, excepting any liability which may have been incurred before the date of such termination.

Article 10. Modification of Agreement.

In order for any modification to this Agreement to be binding upon the parties, said modification must be in writing and signed by both parties.

Article 11. Prior Agreements Superseded.

This Agreement with Attachments A and B represents the entire agreement between the parties hereto relating to the subject matter hereof, and all previous agreements, discussion, communications, and correspondence with respect to the said subject matter are superseded by the execution of this Agreement.

Article 12. Waiver of Terms or Conditions.

The failure of either party to enforce or insist upon compliance with any of the terms or conditions of this Agreement shall not constitute a general waiver or relinquishment of any such terms or conditions, but the same shall be and remain at all times in full force and effect.

Article 13. General.

This Agreement shall be binding upon, and inure to the benefit of the respective successors and assigns of the parties hereto, provided that INTERCONNECTOR shall not assign this Agreement except to an affiliated company, without the prior written consent of PUBLIC SERVICE, which consent shall not be unreasonably withheld. The term "affiliated company" shall include any partnership in which INTERCONNECTOR or one of INTERCONNECTOR's subsidiaries, affiliates, principals, or owners is a general partner or any corporation in which INTERCONNECTOR or one of its subsidiaries, affiliates, principals, or owners owns or controls more than 50 percent of the voting stock or otherwise has operating control. In the event of an assignment to an affiliate, INTERCONNECTOR shall notify PUBLIC SERVICE within five (5) days of the effective date of the assignment.

Article 14. Applicable Law.

This Agreement is made under the laws of The State of New Hampshire and the interpretation and performance hereof shall be in accordance with and controlled by the laws of that State.

Article 15. Mailing Addresses.

The mailing addresses of the parties are as follows:

- INTERCONNECTOR: Pinetree Power Development Corp.
31 Industrial Park Drive
Concord, New Hampshire 03301

Attn: Melvin E. Liston, President

PUBLIC SERVICE: Public Service Company of New Hampshire
1000 Elm Street
P.O. Box 330
Manchester, NH 03105

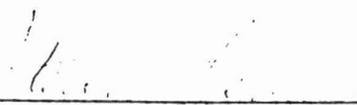
ATTN: Ralph S. Johnson, Vice President

Article 16. Effective Date.

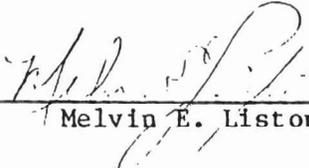
This Agreement shall become effective between the parties as of the effective date of the Commission order approving the long term rate, although PUBLIC SERVICE shall not be obligated to make any payments to INTERCONNECTOR, as referred to in Article 3, until INTERCONNECTOR has satisfactorily installed all metering, interconnection and protective equipment as specified in Attachment B.

IN WITNESS WHEREOF, the parties each by its duly authorized representatives have hereunto caused their names to be subscribed, as of the day and year first above written.

PINETREE POWER, INC.

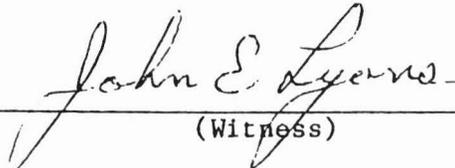


(Witness)

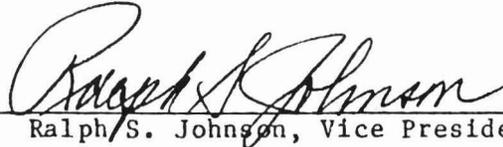
By: 

Melvin E. Liston, President

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE



(Witness)

By: 

Ralph S. Johnson, Vice President

PSNH INTERCONNECTION REPORT FOR
CUSTOMER GENERATION

BETHLEHEM PROJECT

SESD SITE NO. 323

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I. INTRODUCTION

A study has been performed to determine the impact of this proposed facility on the PSNH system. All technical analysis was based on the equipment listed under Section II, and the facility arrangement illustrated on partial one-line diagram SK-PCM-323-1. Where actual site-specific data was not readily available, estimated or "typical" values were utilized in any required calculations. Any deviation from the listed equipment of the illustrated configuration may have significant safety and/or technical ramifications. Consequently, if changes are anticipated now or in the future, PSNH should be informed immediately so that the requirements and recommendations contained within the report may be revised where necessary. This procedure will ensure that the Developer is informed of PSNH requirements in a timely fashion and should eliminate the delays and expense which could otherwise be experienced by the Developer.

II. DESCRIPTION OF MAJOR COMPONENTS

A. Description Of Facilities

This project involves the installation of up to 18,000 KW of generation at a point on the 348 line about 6 miles from Whitefield S/S. The energy source will be wood fired steam. The generation will be interconnected to PSNH 19.9/34.5 kV line 348. Station service for the plant will be taken from the 34.5 kV line via a separate station service transformer.

Sketch SK-PCM-323-1 (attached) shows the proposed addition in one-line fashion.

B. Mechanical Components

1. Turbine - Unspecified
2. Governor - Unspecified

C. Electrical Components

1. Generator - Synchronous, 18,000 KW at .8 PF (estimate)
2. Exciter - Unspecified
3. Voltage Regulator - Unspecified
4. Circuit Breaker(s) - Unspecified
5. Generator Stepup Transformer - Unspecified Delta - 19.9/34.5 kV wye grounded through a reactor
6. Neutral Grounding Reactor - Preliminary, 9.0 OHMS at 60 Hz (see Section IV.A.4)

III. PSNH REQUIREMENTS - GENERAL

A. Safety Considerations

1. The connection of the facility to the PSNH system must not compromise the safety of PSNH's customers, personnel, or the owner's personnel.
2. The generating facility must not have the capability of energizing a de-energized PSNH circuit.
3. An emergency shutdown switch with facility status indicator lights, and a disconnecting device with a visible open shall be made available for unrestricted use by PSNH personnel. The operation of the switch shall cause all of the facility's generation to be removed from service, and shall block all automatic startup of generation until the switch is reset. The status lights, mounted with the shutdown switch, shall be located outdoors at a position acceptable to PSNH operating division personnel. A red light shall indicate that the facility has generation connected to the PSNH system. A green light shall indicate that all generation is disconnected from the PSNH system. The lights shall be driven directly from auxiliary switches located on the facility's generator circuit breaker(s). The disconnecting device with visible open shall be located between the PSNH system and the facility's generation.
4. The settings for all protective relays required by PSNH will be developed by PSNH at the Developer's expense.
5. A crew of PSNH relay technicians will apply settings to and verify the proper functioning of those protective systems required by PSNH. This work will be performed at the Developer's expense.
6. The generating facility has full responsibility for ensuring that the protective system and the associated devices are maintained in reliable operating condition. PSNH reserves the right to inspect and test all protective equipment at the interconnecting point whenever it is considered necessary. This inspection may include tripping of the breakers and testing the transfer trip system from Whitefield S/S to the site.
7. The short circuit interrupting device(s) must have sufficient interrupting capacity for all faults that might exist. The PSNH system impedance at the facility will be supplied on request.
8. All shunt-tripped short circuit interrupting devices applied to generators must be equipped with reliable power sources. A D.C. battery with associated charging facilities is considered a reliable source.

9. All synchronous generator facilities must be equipped with battery-tripped circuit breakers.
10. Any protection scheme utilizing AC control power must be designed in a fail-safe mode. That is, all protective components must utilize contacts which are closed during normal operating conditions, but which open during abnormal conditions or when control power is lost to de-energize the generator contactor coil. These schemes may be utilized only with non-latching contactors and may not be used with synchronous generators.
11. A complete set of AC and DC elementary diagrams showing the implementation of all systems required by PSNH must be supplied for PSNH review. These drawings should be supplied as soon as possible so that any non-conforming items may be corrected by the Developer without impacting the scheduled completion date of the facility.
12. All voltage transformers driving PSNH-required protection systems must be rated by the manufacturer as to accuracy class, and must be capable of driving their connected burdens with an error not exceeding 1.2 percent.
13. All current transformers driving PSNH-required protection systems must be rated by the manufacturer as to accuracy class and must be capable of driving their connected burdens with an error not exceeding 10 percent.
14. All PSNH-required protective relays, and any other relays which PSNH will be requested to test, must be equipped with test facilities which allow secondary quantity injection and output contact isolation.
15. It is not the policy of PSNH to maintain a stock of protective relays for resale to facility developers. Since many protective devices have delivery times of several months, Developers are strongly advised to order them as soon as possible after PSNH type-approval is received.
16. Protection of the generating facility equipment for problems and/or disturbances which might occur internal or external to the facility is the responsibility of the Developer.
17. No operation of the facility's generation is allowed until all requirements in Sections III and IV of this report have been met, and all systems required therein, are in place, calibrated, and, if applicable, proven functional. This requirement may be waived by PSNH for a given system if generation is required to demonstrate the proper functioning of that system.

B. Service Quality Considerations

1. The connection of the facility to the PSNH system must not reduce the quality of service currently existing on the PSNH system. **Voltage fluctuations, flicker, and excessive voltage** and current harmonic content are among the service quality considerations. Harmonic limitations should conform to the latest IEEE guidelines and/or ANSI standards.
2. In general, induction generators must be accelerated to "synchronous" speed prior to connection to the PSNH system to reduce the magnitude and duration of accelerating current and resulting voltage drop to PSNH customers to acceptable levels.
3. In general, synchronous generators may not use the "pull-in" method of synchronizing due to excessive voltage drops to PSNH customers.
4. Power factor correction capacitors may be required for some facilities either at the time of initial installation, or, at some later date. The installation will normally be done by the Developer at his expense.
5. Certain facilities having installed capacity similar in magnitude to connected circuit load may require that control modifications be made to tap changers in the electrical vicinity. Should they be necessary, the modification will be made at the Developers' expense.
6. Automatic reclosing of the PSNH circuit after a tripping operation will occur after an appropriate time delay. If voltage blocking of automatic reclosing is required, it will be added at the Developers' expense.

C. Metering Considerations

1. Except for protection/control and metering voltage sensing and generator and/or capacitor contactor supply voltage, no unmetered station service AC shall be taken from the station service transformers.
2. The following is a list of information which must be available to the PSNH Power Supply Department for generators of this size.
 - Provide analog telemetry to the nearest PSNH remote terminal unit for monitoring of megawatt output.
 - Report on a daily basis, twenty-four hours of hourly generation. Values are to be reported in tenths of a MWh. Hourly generation is the gross or net value as agreed upon in the contract.
 - Report a meter reading on a weekly basis to correct any discrepancies in the hourly totals.

- Provide on a monthly basis, a printed log of date, time and hourly generation for each day of the month. Metering required for watthour records will be either magnetic tape or electronic recorders as specified in CRS #13.
- The Station Operator is to report expected output for the following day, outage and return times, and significant limitations to the PSNH dispatcher.
- The dates planned for annual inspection along with any flexibility in the planned period should be available to PSNH in accordance with NEPEX Operating Procedure #5.
- Using monthly meter readings, submit a calculated bill for generation supplied to PSNH.
- Report all generator trips caused by relay action, as well as the associated relay targets, to the PSNH dispatcher.

IV. PSNH REQUIREMENTS - SPECIFIC

A. System Configuration and Protection

1. The facility must be arranged and equipped as per partial one line diagram SK-PCM-323-1.
2. The following protective functions must be supplied and connected to automatically trip 52G and 52L. These devices must be utility grade as approved by PSNH.

- 32 - Reverse Power
- 810 - Overfrequency
- 81U - Underfrequency
- 59 - Overvoltage
- 27/47 - Three Phase Undervoltage/Phase Sequence
- 51V - Voltage Restrained Overcurrent
- 51N - GSU Neutral Overcurrent
- 59-1 - No Fault Overvoltage Relay (RIS-PR2035)
- 50/51
- or
- 87T - Overcurrent or differential GSU protection

3. The facility generator stepup transformer (GSU) must have a Delta-Gr. Wye with reactor configuration.
4. Although the final neutral reactor specifications should be determined only on the basis of actual transformer impedance and size in conjunction with actual generator data, the following can be used for planning purposes.

- 9.0 OHMS at 60 Hz
- 34.5 kV, 150 kV BIL or greater
- 1000A Isc for 10 seconds
- 25A Continuous Current

5. Transfer trip relaying from Whitefield S/S to the generating plant.

B. System Metering

1. The facility must be equipped with the metering system as shown on partial one line diagram SK-PCM-323-1. As shown and detailed here, a 13.8 kV generating voltage is assumed.
2. The metering must consist of the following components:
 - Item A 2 - General Electric type JVM-5 indoor voltage transformers with 2 primary fuses, 15 kV class, ratio 14400/120 volts, catalog #685X46.
 - Item B 2 - General Electric type JKM-5 indoor current transformers, 15 kV class, ratio 800/5 amps, catalog #755X42G18.
 - Item C 1 - Scientific Columbus type JEM-2 solid state watthour meter, with transformer loss compensation option, mass memory and extended communications option, and KQH function. See notes 5 and 6.
 - Item D 1 - Anchor Electric 13 terminal transformer rated meter socket, catalog #TSS-13-2-PSHO.
 - Item E 1 - Meter Devices 10 pole test switch, catalog #A-1898C.
 - Item F 1 - Texas Instruments teleprinter, silent 700 series with 5 wire RS-232C interface. See notes 7 and 8.

Notes:

1. Substitutions for the above metering are acceptable, provided they are equivalent and advance approval is obtained from the Public Service Company.
2. Items A and B above are designed to be mounted inside switchgear, but may be housed in some other suitable enclosure, providing that the 13.8 kV feeders can be routed to the current transformers.
3. Developer is responsible for providing the metering equipment, physically mounting the equipment, installing necessary conduit, and wiring the primary side of the instrument transformers.
4. Public Service Company will wire the metering secondaries, perform the initial meter test, program the JEM-2 watthour meter, verify the metering connections by vector analysis, and provide overall supervision of the metering installation at the request of the Developer. The cost of this service is estimated to be \$600.00, and would be billed to the Developer.

5. Item C of the materials list is a highly sophisticated solid state watt-hour meter and requires specific ordering details. Because all details are not known at this time, it is not possible to order this item at the present time. When all details are known and are firm, Public Service Company will work with the Developer, at the request of the Developer, to specify and order this item.
6. Developer is required to obtain transformer loss data for the the GSU transformer from the manufacturer prior to ordering the JEM-2 watt-hour meter. No-load and load loss watts (iron and copper losses) are required to complete the JEM-2 ordering specifications. A timely response is therefore important on this item, to be certain the meter is received prior to startup.
7. A means must be provided to notify the Public Service Company system dispatchers daily of the previous 24 hours hourly generation reports. The Texas Instruments Silent 700 series teleprinter, in conjunction with the JEM-2 solid state watt-hour meter will accomplish this task nicely.
8. The magnetic tape recorder shown on the one line diagram in conjunction with the generation meter, is for Public Service Company purposes only. For this reason, it will be supplied and installed by Public Service Company at the expense of Public Service Company.
9. The station service metering will be provided by Public Service Company as with any customer, and most likely served under our standard TR rate.
10. If the Developer wishes to design his own metering system, advance review and approval must be obtained from Public Service Company, prior to ordering the equipment. Any alternatives must, however, be based upon standard utility industry metering practices with respect to accuracy, reliability, applicability, and electrical configuration.

Possible Sources - Metering

Items A and B

General Electric Supply Company
399 E. Industrial Park Drive
Manchester, NH 03103
603/669-2600

Item C

Danek Associates, Inc.
P.O. Box 244
95 Hampton Avenue
Needham, MA 02194
617/444-8838

Item D

Westinghouse Supply Company
140 Hayward Street
Manchester, NH 03104
603/625-5456

Item E

Alex Stohn Associates
10 Industrial Park Road
Hingham, MA 02043

Item F

Supplier unknown, but Danek Associates
may be of assistance

C. Primary Interconnection

Public Service will tap the 348 Line at Pole 348/117 and rebuild the existing single phase 7200 volt line along Route 116 to Pole 331/72 to three phase 19.9/34.5. A step transformer at Pole 331/72X will feed the remaining 7200 volt line. The existing circuit 348X3 will be dead ended on Pole 33/64. The tap to the Developer will begin at pole 331/71 and extend approximately 50' to the delivery point at the Developer owned pole 331/71A.

A VSO recloser with bypass switches will be installed by PSNH at the Developer's expense on pole 331/65. Similarly, a new pole 348/117X will have a three phase 600 amp gang-operated disconnect switch installed for sectionalizing purposes.

The Developer will install pole 331/71A approximately 50' from PSNH Pole 331/71. Pole 331/71A will be perpendicular to the rebuilt 331 route and roughly twenty feet onto the Developer's property. On the Developer's pole 331/71A would be an S & C, K.P.F., or PSNH approved equal, 600 Amp (min.) three-phase 19.9/34.5 kV gang-operated disconnect switch, and the facility status indicator lights (with red and green status indicator lights and the emergency shutdown switch).

The Developer must execute a Service Agreement with PSNH because station service power will be distributed on his distribution line. The Developer's power line from Pole 331/71A into his plant site must conform to PSNH 19.9/34.5 kV 125 B.I.L. distribution standards and the latest National Electrical Safety Code.

After the Developer has received his station service transformer and generator step-up transformer, he must contact PSNH Northern Division Electrical Supervisor to schedule an appointment for TTR Testing. These transformers must conform to PSNH transformer specifications.

The Developer must have his line completed from pole 331/71A to his plant prior to PSNH being able to make the final connection between PSNH Pole 331/71 and the Developer's pole 331/71A. PSNH expects the gang-operated disconnect, discs and all connections to be installed on pole 331/71A prior to scheduling the final connection. Pole 331/71A must be grounded and a grounding mat is required for the switch at this location.

In summary, the Developer is responsible for the following:

1. Executing a Service Agreement with PSNH for his station service.
2. Design and construction of his distribution line to PSNH standards as previously described.
3. Sizing and procurement of his generator stepup and station service transformers.
4. Scheduling with the Northern Division Meter Supervisor for testing and calibration of any Developer's procured meters.
5. Scheduling with the PSNH Northern Division Electrical Supervisor for TTR testing of his transformers.
6. Notification to PSNH after completion of his distribution line for PSNH to complete this interconnection.
7. Notification to PSNH Northern Division Electrical Engineer prior to any generation into PSNH system.

Public Service of New Hampshire recommends that a double lock device be set up on the gang-operated disconnect located on Pole 331/71A. PSNH does require access to open the disconnect and the double locking device enables the Developer to open this disconnect for maintenance on his distribution line.

D. System Operation

A load flow study was made to determine the effect of this machine on the PSNH system under both light and heavy load conditions. It was determined that 18 MW output could be accepted as long as the machine could be run under-excited (18-j 1.8 MVA absorbing vars) to stay below the 104% maximum allowable voltage level. The 59-1 voltage relay will monitor operating voltage and trip the unit after a time delay should the voltage remain above PUC limits. It should be noted that the above output is based on a computer study only. Actual system operation will determine final capability.

Under light load conditions, the power flow through the Whitefield transformer will reverse. Although no problem was predicted by the load flow study, any control changes required to correct problems which become apparent based on actual operation will be made at the Developer's expense. (See Section V.A.7)

Because of operating problems caused by isolating the generator and connected load in its immediate area, separated from the PSNH system, a transfer trip scheme will be required from Whitefield S/S to the plant. Transfer trip of the generator will occur anytime the 348 OCB is open. These outages, plus occasional operations which occur on other area lines and subsequently, cause the machine to trip, must be acceptable to the Developer for the operation of the machine.

In addition, due to limited fault sensing ability on Whitefield 348 with the Whitefield transformer out and the generator running, the plant may have to be removed from service for this contingency. A firm answer to this question will only be available as specific generator and transformer information becomes available.

V. PSNH PRICE ESTIMATES

The following estimates for labor, materials, and overheads are supplied as an aid to the Developer for financial planning purposes. Should the Developer elect to have PSNH perform any of the work described in the estimates, he will ultimately be billed for the full actual cost of any work performed.

Authorization for PSNH to perform any of the work or supply any of the equipment described below must be forwarded to the Supplementary Energy Sources Department along with a minimum payment covering 50% of the estimated labor and materials cost. PSNH will neither perform work nor order materials until this requirement has been met.

A. System Protection

1. All protective relay materials will be purchased by the Developer. PSNH must be notified as to exact relay model numbers proposed so that proper setting capability exists for interfacing with the PSNH system.

SUBTOTAL \$ 0.00

2. Estimated labor to test PSNH required relays (including transfer trip equipment) and to perform trip tests at the generating plant.

SUBTOTAL \$5,520.00

3. Engineering - Control circuits review, specification review, meetings, PSNH required relay settings.

SUBTOTAL \$2,000.00

4. Transfer trip equipment for Whitefield (transmitter) to prevent operating plant isolation from the Whitefield 34.5 kV bus.

Transmitter: \$2,750.00
Labor: \$3,400.00

SUBTOTAL \$6,150.00

Note: The transfer trip equipment listed does not include approximately \$7500.00 for the Developer to purchase a matching receiver. Equipment installation and wiring at the generating plant, including arranging an appropriate telephone channel are the responsibility of the Developer. PSNH will assist with channel and equipment specifications.

5. Relay and control installation and tests at Whitefield (27L addition) and area underfrequency cabinets.

Material \$5,500.00
Labor \$6,550.00

SUBTOTAL \$12,050.00

6. (Contingency) PSNH is currently reviewing all 34.5 kV reclosers relative to their interrupting capability during high system X/R conditions. Type RVE reclosers have not been fully tested by their manufacturer to determine their full capabilities. If upon receipt of this test data it appears that the addition of the Developers generator has changed the system X/R such that the two RVE reclosers in the area are no longer applicable, the reclosers will be changed at the Developers expense with credit for salvaging the existing RVE.

(Contingent) SUBTOTAL \$40,000.00

7. (Contingency) At maximum generation during light load conditions power will reverse and flow into the 115 kV system at Whitefield S/S. No adverse effects of this condition concerning proper tap changer operation are predicted by the PSNH computer model, however if actual operating experience proves otherwise reverse power detection and control modifications will be installed at the Developer's expense.

(Contingent) SUBTOTAL \$2,000.00

SECTION A TOTAL (w/o Contingencies) \$25,720.00

SECTION A TOTAL (w/Contingencies) \$67,720.00

B. System Metering

1. The Developer will purchase all required metering.

SUBTOTAL \$ 0.00

2. Estimated labor to test the JEM-2, wire the instrument transformer secondaries, perform a connection verification analysis and supervise the overall metering installation.

SUBTOTAL \$ 600.00

SECTION B TOTAL \$ 600.00

Note: No cost for analog telemetry is included per Section III.C.2. System specifications must be developed jointly by the Developer, New England Telephone Co., and PSNH. The Developer will be responsible for all costs.

C. Primary Interconnection

The following is a summary of the primary interconnection work required to provide 19920/34500 volt service to the airbreak at pole 331/71A.

1. Material, labor and overheads for distribution work relative to the generating plant addition, including:

- 1) VSO Recloser at Pole 331/65
- 2) Pole 348/117X with switch
- 3) Poles, wire and associated hardware to convert from Pole 348/117, along Route 116 to Pole 331/72
- 4) A step transformer at Pole 331/72X
- 5) The tap to the Delivery Point at the Developer's Pole 331/71A
- 6) Voltage control of Cherry Valley capacitors

(Note that this includes neither the 1000' line from the airbreak to the plant site, nor the airbreak on Pole 331/71A.)

SECTION C TOTAL \$49,500.00

GRAND TOTAL (A + B + C) (w/o Contingencies) \$75,820.00

GRAND TOTAL (A + B + C) (W/Contingencies) \$117,820.00

VI. INTERCONNECTION EQUIPMENT OWNERSHIP, OPERATION, AND MAINTENANCE

A. Delivery Point

For the purpose of establishing ownership, operation, and maintenance responsibilities, the location of facility energy delivery to PSNH (the "Delivery Point") must be defined. At this facility, the delivery point will be at the connection of the conductor from PSNH pole 331/71 to the discs on the Developer's pole 331/71A.

B. Description of Responsibilities

PSNH will own and maintain all equipment up to the delivery point. The Developer will own and maintain all equipment from the Delivery Point into and throughout the plant.

VII. DRAWINGS

A. Sketch SK-PCM-323-1 is attached.

P. C. Martin
September 23, 1985

ATTACHMENT C

BROWN, OLSON & GOULD

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E. MARIA REINEMANN

February 11, 2008

Craig A. Wright
Air Resources Division
Department of Environmental Services
29 Hazen Drive
Concord, NH 03301

Re: Pinetree Power, Inc. Application for Class III Certification

Dear Mr. Wright:

As required by Public Utilities Commission Interim Rule 2505.02(i), enclosed please find a copy of Pinetree Power Inc.'s application to the Public Utilities Commission for Class III renewable portfolio generator certification. The application seeks conditional certification from the Public Utilities Commission pending certification of Pinetree's emissions by the Air Resources Division pursuant to RSA 362-F:12, III.

Please call if you have any questions.

Sincerely,



David J. Shulock, Esq.