

#AOP-01-037  
DEC# SJ95-0114  
Operating Permit Expiration Date: May 16, 2016

State of Vermont  
Agency of Natural Resources  
Department of Environmental Conservation



Air Pollution Control Division  
Waterbury, Vermont

**TITLE V**  
**AIR POLLUTION CONTROL PERMIT**  
**TO CONSTRUCT AND OPERATE**

Date Permit Issued: May 16, 2011

Owner/Operator: Ryegate Associates, Incorporated  
247 Weesner Drive  
East Ryegate, Vermont 05042

Source: Ryegate Associates, Incorporated  
Wood-fired Electric Generating Station  
247 Weesner Drive  
East Ryegate, Vermont

## FINDINGS OF FACT

### (A) FACILITY DESCRIPTION

Ryegate Associates, Incorporated (hereinafter "Ryegate Associates" and also referred to herein as "Permittee") owns and operates a twenty (20) megawatt (net) wood-fired power plant located at 247 Weesner Drive in East Ryegate, Vermont (hereinafter "Ryegate Power Station" and also referred to herein as "Facility"). Ryegate Power Station is operated as a base load plant at or close to 100% capacity at all times, excluding plant outages. The electricity generated at the Ryegate Power Station is sold to the Vermont Electric Power Producers Inc. (VEPPI). Operations performed at the Facility are classified within the Standard Industrial Classification Code - 4911 (Electrical Services).

The Facility is fired with whole tree wood chips delivered in standard chip vans. The fuel is primarily mixed hardwood and softwood, with some lesser amounts of sawdust, mill chips, and bark. The fuel chips are stored in silos and outside storage pile(s) before being mechanically conveyed to the boiler. Wood fuel is fed into a single, high-pressure, boiler designed to burn green fuel (hereinafter "Main Boiler"). Steam produced by the Main Boiler is passed through a condensing turbine generator set with extraction steam utilized for feedwater heating. Condenser heat is removed via a open loop circulating water system to a cooling tower structure.

The Main Boiler is fitted with a propane (LPG) auxiliary burner having a maximum rated heat input of 50 million British Thermal Units per hour ("MMBtu/hr"). This burner is used primarily for plant start-up and for supplemental fuel. The Facility also has a 430 horsepower propane-fired engine generator set for use during electric power outages (hereinafter "Emergency Generator"), and an auxiliary propane-fired boiler (hereinafter "Auxiliary Boiler") that supplies hot water for space heating purposes during plant outages.

Air contaminant emissions produced by the wood-fired boiler are controlled as follows: electrostatic precipitator, flue gas reinjection, selective non-catalytic reduction system (urea injection), and combustion air control with oxygen trim and underfire/overfire air ratio.

Below is a summary of specifications for equipment the Facility will consist of upon issuance of this Permit:

<b>Equipment Specifications</b>			
Equipment	Size <sup>1,2</sup>	Fuel Type <sup>3</sup>	Date of Installation
Main Boiler Manufacturer: Riley Stoker Corp.	300 MMBtu/hr	Wood	1992
Main Boiler Auxiliary Burner Manufacturer: Coen Model: 230/DAZ-22	50 MMBtu/hr	LPG	

Equipment Specifications			
Equipment	Size <sup>1,2</sup>	Fuel Type <sup>3</sup>	Date of Installation
Auxiliary Boiler Manufacturer: Weil-McLain Boiler Model: 1688R-W Burner Model: WCR3-G-25B	5 MMBtu/hr		
Emergency Generator Manufacturer: Cummins Model: GTA-19	430 bhp (300kW)		
Insignificant Fuel Combustion Equipment			
Equipment	Size <sup>1</sup>	Fuel Type	Date of Installation
Diesel Fire Pump	< 3 MMBtu/hr	No. 2 Fuel Oil	1992
Fuel Yard Maintenance Building Heater			
Main Maintenance Building Heater		LPG	2009
Propane System Vaporizer			

<sup>1</sup> MMBtu/hr - Million British Thermal Units per hour maximum rated heat input.

<sup>2</sup> bhp – brake horsepower rated output as specified by the manufacturer. kW – kilowatt electrical output.

<sup>3</sup> LPG –Liquefied Petroleum Gas

#### (B) FACILITY CLASSIFICATION

The Facility is classified as a source of air contaminants pursuant to Title 10 of the *Vermont Statutes Annotated* ("10 VSA") §555 and §5-401 (3), [Electrical power generating facilities], of the *Vermont Air Pollution Control Regulations* (hereinafter "*Regulations*"). In addition, §5-101 of the *Regulations* defines a *stationary source* as any structure(s), equipment, installation(s), or operation(s), or combination thereof, which emit or may emit any air contaminant, which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person or persons under common control. Based on this definition, all of the equipment, operations, and structures at the Facility are grouped together by the Agency of Natural Resources, Department of Environmental Conservation, Air Pollution Control Division (hereinafter "Agency") as one stationary air contaminant source for purposes of review under the *Regulations*.

#### (C) PRIOR AGENCY ACTIONS/APPROVALS

The Facility has been issued the following "Permit to Construct" approvals pursuant to 10 VSA §556 and §§5-501 and/or 5-502 of the *Regulations* and the following "Permit to Operate" approvals pursuant to 10 VSA §556a and Subchapter X of the *Regulations*.

Prior Agency Approvals and Actions		
Permit Number	Date Approval Issued	Description of Agency Approval/Action
N/A	January 11, 1988	Original Agency approval to construct the Facility.
AP-90-029a	July 11, 1990	Amendment issued to extend the deadline of construction of the Facility and added requirement for SNCR for NO <sub>x</sub> .
AP-90-029b2	August 15, 1991	Amendment issued to address design changes in the Facility (e.g., switch auxiliary fuel from No. 2 oil to LPG, increase in stack height, etc.).
AP-90-029b	October 30, 1991	Amendment issued requiring compliance with a revised NO <sub>x</sub> MSER limit 0.15 lb/MMBtu at start-up instead of three years following start-up.
AP-90-029c	January 24, 1992	Amendment issued approving the use of urea and/or ammonia for the selective non-catalytic control device.
AP-90-029d	April 29, 1992	Amendment issued in order to make clerical revisions to the conditions of the approval.
AP-90-029e	June 18, 1992	Amendment issued in order to revise the language of various reporting requirements.
AP-90-029f	February 23, 1993	Amendment issued in order to extend the deadline for emission testing.
AP-90-029g	February 25, 1997	Amendment issued eliminating the requirement to continuously monitor VOC emissions and the prohibition on simultaneous operation of the Main Boiler and Auxiliary Boiler.
AOP-95-031	September 15, 1997	Agency approval for initial Title V Permit to Operate.

## (D) FACILITY PERMIT APPLICABILITY

As noted above, the Facility is classified as a source of air contaminants under §5-401 of the *Regulations*. Pursuant to 10 VSA §556a and Subchapter X of the *Regulations* a Permit to Operate is required for any air contaminant source with allowable emissions of all air contaminants combined of ten (10) tons per year ("tpy") or more or that is subject to a standard, limitation or other requirement under §111 and/or §112 of the Clean Air Act.

Therefore, pursuant to §§5-1002, 5-1003, and 5-1005 of the *Regulations* the Facility is classified as a "Title V Subject Source" and must obtain a Permit to Operate consistent with the requirements of Subchapter X of the *Regulations* and Title 40 *Code of Federal Regulations* ("40 CFR") Part 70.

The Facility currently operates under a Permit to Operate issued on September 15, 1997 (Permit #AOP-95-031). The allowable emissions from the Facility are estimated to be greater than ten (10) tpy combined and emissions of nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) are estimated to be in excess of the one-hundred (100) tpy threshold for applicability to Title V of the federal Clean Air Act. Therefore, pursuant to §§5-1002, 5-1003, and 5-1005 of the *Regulations* the Facility is classified as a "Title V Subject Source". In accordance with §5-1009 of the *Regulations*, the Agency is issuing the Permit to Operate herein as a renewal of the previous Permit to Operate for the Facility and the Permit herein supercedes all prior Permits for the Facility.

In accordance with 10 VSA §556(e) the Agency has combined the Permit to Construct and the Permit to Operate for this Facility into one combined Permit to Construct and Operate. The allowable emissions for the Facility are summarized below:

<b>Future Allowable Air Contaminant Emissions (tons/year)<sup>1</sup></b>						
<b>PM/PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOCs</b>	<b>Total Criteria</b>	<b>HAPs<sup>2</sup></b>
22	25	197	394	39	>10	<10/25

<sup>1</sup> PM/PM<sub>10</sub> - particulate matter and particulate matter of 10 micrometers in size or smaller; SO<sub>2</sub> - sulfur dioxide; NO<sub>x</sub> - oxides of nitrogen measured as NO<sub>2</sub> equivalent; CO - carbon monoxide; VOCs - volatile organic compounds; HAPs - hazardous air pollutants as defined in §112 of the federal Clean Air Act.

<sup>2</sup> Emissions of individual HAPs each < 10 tpy and emissions of total HAPs combined <25 tpy.

## (E) REVIEW FOR THE PERMIT TO CONSTRUCT

### (a) New Source Review Designation

The Permittee has not proposed any modifications to the Facility in conjunction with the review for this Permit to Operate and therefore is not subject to review under the New Source Review requirements in §5-501 or §5-502 of the *Regulations* at this time.

### (b) Most Stringent Emission Rate

Pursuant to §5-502 of the *Regulations*, the owner/operator of each new major stationary source or major modification must apply control technology adequate to achieve the Most Stringent Emission Rate ("MSER") with respect to those air contaminants for which there would be a major or significant actual emissions increase, respectively, but only for those currently proposed physical or operational changes which would contribute to the increased emissions.

The Facility was previously reviewed under §5-502 of the *Regulations* for the following modifications to the Facility. The following MSER determinations have been made at this Facility:

<b>Most Stringent Emission Rate Determinations</b>		
<b>Determination Date &amp; Permit #</b>	<b>Pollutant</b>	<b>Description/Emission limit<sup>1</sup></b>
Original Permit to Construct No Permit Number Issued: January 11, 1988	PM	<u>Main Boiler:</u> Installation and operation of mechanical collectors in series with a 670 SCA, five field electrostatic precipitator. Emission Limit: 0.00070 gr/dscf at 12% CO <sub>2</sub> .
	SO <sub>2</sub>	<u>Main Boiler:</u> Combustion of #2 fuel oil with a maximum sulfur content of 0.5 percent by weight, as the auxiliary fuel and the maximum combustion limit of 357,000 gallons/yr.
	NO <sub>x</sub>	<u>Main Boiler:</u> Modern combustion design devised to minimize nitrogen oxides emissions and the low flame temperature resulting from the utilization of wood as the primary fuel. Emission Limit: 0.250 lb/MMBtu.
	CO	<u>Main Boiler:</u> Modern combustion design devised to assure complete combustion of fuels. Emission Limit: 0.30 lb/MMBtu.
July 11, 1990 AP-90-029a	NO <sub>x</sub>	<u>Main Boiler:</u> Installation and operation of a non-catalytic reduction system wherein ammonia is injected into the boiler combined with modern combustion design of the boiler and the low flame temperature resulting from utilization of wood as the primary fuel. Emission Limits: 0.25 lb/MMBtu (first year of operation) 0.20 lb/MMBtu (second year of operation) 0.15 lb/MMBtu (third year of operation)
August 15, 1991 AP-90-029b	PM	<u>Auxiliary Boiler:</u> Use of propane fuel. Emission Limit: 0.005 lb/MMBtu <u>Emergency Generator:</u> Use of propane fuel. Emission Limit: 0.001 g/bhp-hr
	NO <sub>x</sub>	<u>Auxiliary Boiler:</u> Modern combustion design and use of propane fuel. Emission Limit: 0.14 lb/MMBtu <u>Emergency Generator:</u> Modern combustion design and the use of propane fuel. Emission Limit: 8.5 g/bhp-hr
	CO	<u>Auxiliary Boiler:</u> Modern combustion design. Emission Limit: 0.035 lb/MMBtu <u>Emergency Generator:</u> Modern combustion design. Emission Limit: 28 g/bhp-hr
October 30, 1991 AP-90-029c	NO <sub>x</sub>	<u>Main Boiler:</u> Installation and operation of a non-catalytic reduction system wherein ammonia is injected into the boiler combined with modern combustion design of the boiler and the low flame temperature resulting from utilization of wood as the primary fuel. Emission Limit: 0.15 lb/MMBtu (8 hour rolling average) to be met upon start-up of boiler.

<sup>1</sup>gr/dscf – grains per dry standard cubic feet, lb/hr – pounds per hour, lb/MMBtu – pounds per million British thermal unit at maximum rated heat input, g/bhp-hr – grams per break horsepower hour rated output as specified by the manufacturer.

(c) Ambient Air Quality Impact Evaluation

An ambient air quality impact evaluation is performed to demonstrate whether or not a proposed project will cause or contribute to violations of the ambient air quality standards and/or significantly deteriorate existing air quality. The Agency's implementation procedures concerning the need for an ambient air quality impact evaluation under §5-406(1) of the *Regulations*, specifies that such analyses may be required when a project results in an allowable emissions increase of ten (10) tons per year or more of any air contaminant, excluding VOCs. Additionally, the Agency may require an air quality impact evaluation where the short-term allowable emission rates will significantly increase as a result of a project.

The Permittee has not proposed any modifications to the Facility in conjunction with the review for this Permit to Operate and therefore is not subject to an air quality impact analysis under §5-501 of the *Regulations* at this time.

Ambient air quality impact analyses were performed in 1987 as part of the original review for the Facility and again as part of the review for AP-90-029A2 issued August 15, 1991. The pollutants PM, SO<sub>2</sub>, CO and NO<sub>x</sub> were modeled and it was determined that the proposed impacts would not cause a violation of any National Ambient Air Quality Standard (NAAQS), exceed any PSD increment or significantly contribute to an existing violation of an NAAQS.

(F) REVIEW FOR THE PERMIT TO OPERATE

(a) Applicable Requirements

The operations at the Facility are subject to the following state and federal laws and regulations, the requirements of which are embodied in the conditions of this Permit.

(i) *Vermont Air Pollution Control Regulations:*

<b>Applicable Requirements from the Vermont Air Pollution Control Regulations</b>
Section 5-201 – Prohibition of Open Burning.
Section 5-211(2) and (3) - Prohibition of Visible Air Contaminants, Installations Constructed Subsequent to April 30, 1970. Exceptions – Wood Fuel Burning Equipment.
Section 5-221(1) - Prohibition of Potentially Polluting Materials in Fuel, Sulfur Limitation in Fuel.
Section 5-231(3) - Prohibition of Particulate Matter; Combustion Contaminants.
Section 5-231(4) - Prohibition of Particulate Matter; Fugitive Particulate Matter.
Section 5-241 – Prohibition of Nuisance and Odor.

<b>Applicable Requirements from the Vermont Air Pollution Control Regulations</b>
Section 5-402 – Written Reports When Requested.
Section 5-403 – Circumvention.
Section 5-502(3) – Most Stringent Emission Rate.
Subchapter VIII – Registration of Air Contaminant Sources.
Subchapter X – Operating Permits.

(ii) Reasonably Available Control Technology - §5-1010 of the *Regulations*

Pursuant to 10 VSA §556a(d) and §5-1010 of the *Regulations* the Agency may establish and include within any Permit to Operate emission control requirements based on Reasonably Available Control Technology ("RACT"). Based on the Facility's existing levels of emissions and emission controls, the Agency has not imposed any further requirements on this Facility under this authority at this time.

(iii) Existing Air Pollution Control Permit to Construct and/or Operate

The Facility currently operates under the confines of a combined Permit to Construct and Operate issued on September 15, 1997 (Permit #AOP-95-031). The conditions within that existing permit are considered applicable requirements pursuant to §5-1002(d) of the *Regulations*. The requirements of that permit which are not being modified herein are incorporated into this new combined Permit to Construct and Operate (Permit #AOP-01-037).

Consistent with Condition (16) of Permit #AOP-95-031, the Facility has updated and made changes to its O&M including boiler cleaning techniques.

(iv) Federal Requirements:

<b>Applicable Requirements from Federal Regulations and the Clean Air Act</b>
40 <i>CFR</i> Part 60, New Source Performance Standards, Subpart A - General Provisions.
40 <i>CFR</i> Part 60, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units: §60.42b Standards for sulfur dioxide; §60.43b Standards for particulate matter; §60.44b Standards for nitrogen oxides; §60.49b Reporting and recordkeeping requirements. Applicable to all units of 100 MMBtu per hour or greater constructed after June 19, 1984.

**Applicable Requirements from  
Federal Regulations and the Clean Air Act**

Clean Air Act §§114(a)(3), 502(b), and 504(a)-(c); 40 *CFR* Part 70 §§70.6(a)(3)(i)(B) and 70.6(c)(1); and 40 *CFR* Part 64 - Compliance Assurance Monitoring. Upon renewal of a Title V Permit to Operate, a facility must comply with enhanced monitoring and compliance assurance monitoring requirements for any emission controlled unit subject to an emission standard with uncontrolled emissions from the unit in excess of the Title V major source thresholds.

40 *CFR* Parts 72, 73, 75, 76, 77, 78, Acid Rain Program

*Acid Rain Program does not apply since Ryegate had power contracts prior to effective date and does not burn oil:*

*They are an Independent Power Production facility (IPP) that had power purchase commitments prior to 11/15/90 (entered into a purchase power agreement on March 13, 1989 Docket # 5177 ) even though they did not commence commercial operation until after 11/15/90. Once they amend their power purchase contracts on October 31, 2012 they will lose this exemption but can apply for new unit exemption as a low sulfur unit less than 25 MW.*

40 *CFR* Part 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers. This regulation will apply to new and existing fuel oil and solid fuel fired boilers located at area sources (major sources are subject to Subpart DDDDD). It does not apply to natural gas or propane fired boilers. The final rule is effective 3/21/2011. Boilers that commenced construction on or before June 4, 2010 are considered an existing source.

*The Main Boiler is subject to this regulation.*

*The propane fired auxiliary boiler is not subject to this regulation.*

(b) Non-Applicable Requirements

Pursuant to §5-1015(a)(14) of the *Regulations*, an owner or operator of a Facility may request a permit shield from specific state or federally enforceable regulations and standards which are not applicable to the source. The applicant has not requested such a permit shield in accordance with the requirements of §5-1015(a)(14) of the *Regulations*.

(c) Enforceability

This section delineates which permit conditions are federally enforceable and which conditions are state only enforceable. All federal enforceable conditions are subject to federal citizen suit provisions. Condition (14) of this Permit regarding odor control and the emission limits for ammonia in Condition (22) of this Permit derive solely from state law and are only state enforceable, and therefore, are not federally enforceable. All other conditions of this Permit are enforceable by both state and federal authorities.

(d) Compliance Certification

The Permittee is required by this Permit to certify compliance as part of its annual registration with the Agency pursuant to the requirements of Subchapter X of the *Regulations*. Additionally, this Permit requires the submission of quarterly reports of monitoring records used to demonstrate compliance with the limitations contained in this Permit.

(G) HAZARDOUS MOST STRINGENT EMISSION RATE

Pursuant to §5-261 of the *Regulations*, any stationary source whose current or proposed actual emission rate of a hazardous air contaminant ("HAC") is equal to or greater than the respective Action Level (found in Appendix C of the *Regulations*) shall achieve the Hazardous Most Stringent Emission Rate ("HMSER") for the respective HAC.

Pursuant to §5-261(1)(b)(ii) of the *Regulations*, all fuel burning equipment which combusts virgin liquid or gaseous fuel and wood boilers constructed before January 1, 1993 are exempt from this section. Therefore, the Main Boiler, Auxiliary Boiler and the engine/generator are not subject to §5-261 of the *Regulations* at this time.

The emission of HACs from the cooling tower drift is also subject to §5-261, but no Action Levels are estimated to be exceeded.

The ammonia emissions from the SNCR system is subject to §5-261, and the HMSER continues to be an ammonia emission rate of 40 ppmv.

<b>Hazardous Most Stringent Emission Rate Determinations</b>		
Date of Determination/ Permit #	Pollutant	Description/Emission limit
July 11, 1990 #AP-90-029a  Re-established May 16, 2011 #AOP-01-037	Ammonia	40 ppmv (parts per million on a volume basis corrected to 12% CO2)(one-hour average) when wood is contributing more than thirty (30) % of the BTU input to the Main Boiler.

(H) EQUIVALENCY DETERMINATIONS

<b>Applicable Visible Emission Standards, Main Boiler</b>		
<b>Most Stringent</b>	<b>Regulatory Authority</b>	<b>Standard or Limit</b>
	40 <i>CFR</i> Part 60 Subpart Db §60.43b(f)	20% or less opacity except for one 6 minute period in any hour where emissions may not exceed 27% opacity. Does not apply to startup, shutdown and malfunction.
X	§5-211(2) and (3) of the <i>Regulations</i>	20% opacity for periods aggregating to more than 6 minutes in any hour. Exception for wood burning start up and soot blowing, but never to exceed 80% opacity.

<b>Applicable Particulate Matter Emission Standards, Main Boiler</b>		
<b>Most Stringent</b>	<b>Regulatory Authority</b>	<b>Standard or Limit</b>
	40 <i>CFR</i> Part 60 Subpart Db §60.43b(c)(1)	0.10 lb/MMBtu
	§5-231(3)(b)(iii) of the <i>Regulations</i>	0.10 gr/dscf
X	MSER: Original Permit to Construct – Issued January 11, 1988	0.0007 gr/dscf corrected to 12% CO <sub>2</sub> equivalent to 0.002 lb/MMBtu

Based on the Agency's review of the Facility's application and the above Findings of Fact, the Agency concludes that the Facility, subject to the following Permit conditions, complies with all applicable state and federal air pollution control laws and regulations or is subject to an acceptable schedule of compliance. Therefore, pursuant to 10 VSA §§556 and 556a, as amended, the Agency hereby issues a Permit approving the Facility, as described in the above Findings of Fact, subject to the following:

## PERMIT CONDITIONS

### - Construction and Equipment Specifications -

- (1) The Permittee shall construct and operate the Facility in accordance with the plans and specifications submitted to the Agency and in accordance with the conditions set forth herein, including the equipment specifications as listed in Findings of Fact (A). [10 V.S.A. §§556(c) and 556a(d)] [§5-501(1) of the *Regulations*]
- (2) The Main Boiler's propane auxiliary burner shall not exceed fifty (50) million British Thermal Units per hour ("MMBTU/hr"). [10 V.S.A. §556(c)] [AP-90-029b issued 8/15/1991]
- (3) Air Pollution Control Equipment
  - (a) The Main Boiler shall be equipped with a particulate matter control system consisting of mechanical collectors in series with a five (5) field electrostatic precipitator ("ESP"), each of the make and specifications indicated by the Permittee in its application entitled "Air Pollution Control Operating Permit Application" and dated 15 September 2001. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the mechanical collectors and ESP in a manner consistent with good air pollution control practice for minimizing emissions. Further, the mechanical collectors and ESP shall be operated whenever the Main Boiler is running after initial start-up. [10 V.S.A. §556(c)] [Original Agency Approval to Construction: 1/11/1988] [40 CFR §60.11d]
  - (b) The Main Boiler shall be equipped with a non-catalytic nitrogen oxides reduction system consisting of either ammonia or urea injection into the boiler flue gas at appropriate points within the furnace. The Permittee shall maintain temperatures within the injection zones in a range between 1600 degrees Fahrenheit ("°F") and 1900°F. All elements of the non-catalytic reduction system shall be maintained in good working order and shall be operating whenever the Main Boiler is running after initial start-up. [10 V.S.A. §556(c)] [AP-90-029a]
- (4) Auxiliary Boiler
  - (a) The Permittee shall operate the Auxiliary Boiler in accordance with the plans and specifications submitted to the Agency and the terms and conditions of this Permit.

- (b) The Auxiliary Boiler shall have a maximum rated heat input of five (5) MMBTU/hr or less and shall operate on propane fuel.

[10 V.S.A. §556(c)] [AP-90-029b issued 8/15/1991]

(5) Emergency Generator

- (a) The Permittee shall operate the Emergency Generator in accordance with good operating practices.
- (b) The Emergency Generator shall have a maximum rating of 300 kilowatts and 430 brake horsepower and shall operate on propane fuel.
- (c) The Emergency Generator shall be equipped with a non-resettable elapsed time meter designed to measure and record its total hours of operation.

[10 V.S.A. §556(c)] [AP-90-029b issued 8/15/1991]

- (6) The exhaust gases from the Main Boiler shall be released vertically through a stack which extends a minimum of 212 feet above the stack base grade elevation. The stack shall not be equipped with any device that may obstruct the upward discharge of the exhaust gases such as a fixed raincap. [10 V.S.A. §§556(c) and 556a(d)] [§5-406 of the *Regulations*]
- (7) The exhaust gases from the Auxiliary Boiler shall be released vertically through a stack which extends a minimum of 47 feet above the stack base grade elevation. [10 V.S.A. §§556(c) and 556a(d)] [§5-406 of the *Regulations*]

**- Operational Limitations -**

- (8) The Permittee shall utilize as solid fuel for the Main Boiler only wood fuel uncontaminated by glues, preservatives, oils, or similar foreign substances. Furthermore, The Permittee shall notify the Agency of all proposed sources of wood fuel other than whole tree wood chips, and of the nature of said fuels, prior to the securing of any purchase/utilization agreements for said fuels. Whole tree wood chips means chips made from virgin wood and include stumps, branches, bark, and sawdust incidental to chipping operations. [10 V.S.A. §§556(c) and 556a(d)] [§§5-101, 5-231(2) and 5-1015(a)(1) of the *Regulations*]
- (9) Propane
  - (a) The annual propane fuel consumption by the Main Boiler shall not exceed 20.0 million cubic feet, based upon any rolling twelve (12) consecutive calendar month period.
  - (b) The sulfur content of propane combusted by the Facility shall at no time exceed 10 grains per 100/cubic foot.

[10 V.S.A. §§556(c) and 556a(d)] [AP-90-029b issued 8/15/1991]

- (10) The Auxiliary Boiler shall not operate more than 720 hours during any rolling twelve (12) consecutive calendar month period. [10 V.S.A. §§556(c) and 556a(d)] [AP-90-029b issued 8/15/1991]

(11) The Permittee shall not install or operate a stationary reciprocating internal combustion engine, as defined in the *Regulations*, that is 450 bhp or greater unless the engine complies with §5-271 of the *Regulations*, as applicable. Installation of any size stationary reciprocating internal combustion engine, even those below 450 bhp, may still require approval from the Agency in the form of an amended Permit prior to installation. Stationary reciprocating internal combustion engines include those used to power generator sets or to provide shaft power for equipment but does not include engines used to power motor vehicles. [§§5-501 and 5-271 of the *Regulations*]

(12) The Emergency Generator shall not operate more than 720 hours during any rolling twelve (12) consecutive calendar month period and shall not operate simultaneously with the Main Boiler, except for periods of regularly scheduled Emergency Generator operation necessary for maintenance and performance testing of the emergency system when requested by the Independent Systems Operator for New England (ISO New England) for an OP 4 event or OP 7 event. [10 V.S.A. §556(c)][AP-90-029b issued 8/15/1991]

(13) Fugitive Particulate Matter Control

The Permittee shall take reasonable precautions at all times to prevent emissions of fugitive particulate matter, including, but not limited to, the following measures:

- (a) Techniques such as, but not limited to, enclosing or spraying with water or surfactants shall be employed by the Permittee to prevent particulate matter from becoming airborne from the handling and transportation of ash.
- (b) The Permittee shall include in its contract(s) with those receiving ash from the Facility the following clause:  
The ash recipient shall take reasonable precautions at all times to prevent fugitive particulate matter from becoming airborne from the handling and disposing of ash.
- (c) All roads, traffic areas, and storage piles on the premises shall be maintained and treated as necessary to control fugitive dust, and all trucks and railroad cars which may be sources of fugitive dust shall be covered or treated as necessary.
- (d) Reasonable measures shall be taken to control fugitive dust resulting from any wood chipping operations conducted at the Facility.

[10 V.S.A. §556(c) and §5-231(4) of the *Regulations*] [Original Agency Approval to Construction: 1/11/1988]

(14) Nuisance and Odor Control

- (a) The Permittee shall operate the Facility in accordance with its Chip Management Plan, initially approved by the Agency on 5/28/1992. Future amendments to the plan do not require approval by the Agency, but a copy of the amended plan shall be sent to the Agency. Said plan shall detail the outdoor woodchip storage and handling methods to be utilized by the Permittee to prevent the decomposition of the woodchips and the emissions of objectionable odors beyond the property line of the premises. [Original Agency Approval to Construction: 1/11/1988]

- (b) The Permittee shall not discharge, cause, suffer, allow, or permit from any source whatsoever such quantities of air contaminants or other material which will cause injury, detriment, nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort, repose, health or safety of any such persons or the public or which causes or has a natural tendency to cause injury or damage to business or property. [§5-241(1) and (2) of the *Regulations*]
- (15) Operation and Maintenance Plan: The Permittee shall develop and update as necessary an Operation and Maintenance Plan for the Main Boiler and its associated air pollution control equipment.
- (a) Said plan shall detail the inspection and maintenance procedures to be followed to ensure proper operation of the Facility and continuing compliance with the emission standards specified in this Permit.
- (b) Said plan shall also detail the practices and procedures to be followed during periods of startup, shutdown and upset conditions in order to prevent emissions in excess of the standards specified in this permit.
- (c) Said plan shall include, but not be limited to, consideration of preventive maintenance schedules, spare parts inventories, procedures and protocols for unscheduled outages, and provisions for equipment replacement and measures to be taken to protect air pollution control equipment in the event of any control equipment failure or shutdown.
- (d) All operators of the Facility shall be trained in the operation and maintenance of both the Main Boiler and its associated air pollution control equipment by qualified personnel.
- [10 V.S.A. §§556(c)][Original Agency Approval to Construction: 1/11/1988]
- (16) In accordance with 40 *CFR* Part 63 Subpart JJJJJJ (National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial and Institutional Boilers at area sources), the Permittee shall comply with the following applicable requirements for coal, oil and wood fired boilers as well as all other applicable requirements of this regulation:
- (a) Biennial tune-ups of the boiler(s) as required by 40 *CFR* §63.11223. For boilers installed prior to June 4, 2010 the first tune-up is required by March 21, 2012. Subsequent tune-ups must be completed no later than 25 months after the prior tune-up.
- (b) A one-time energy assessment of the boilers as well as the rest of the Facility as required by 40 *CFR* §63.11201(b). This provision only applies to existing facilities with one or more boilers of 10 MMBtu/hr heat input or greater that were installed prior to June 4, 2010. The energy assessment must be completed by March 21, 2014.
- (c) Notification, reporting and recordkeeping requirements as specified in §63.11225. This includes:
- (i) §63.11225(a)(2): Initial Notification:
- a. For boilers installed prior to June 4, 2010 the initial notification must be sent to the EPA no later than September 17, 2011.

- (ii) §63.11225(a)(4): Notification of Compliance Status:
  - a. Notification of the initial tune-up of the boiler must be submitted no later than July 19, 2012 for boilers installed prior to June 4, 2010.
  - b. Notification of the completion of the energy assessment must be submitted no later than July 19, 2014
- (iii) §63.11225(b): By March 1 of each year, prepare and submit an annual compliance certification report. For boilers only subject to a requirement to conduct biennial tune-up and not subject to emission limits or operating limits, the Permittee may prepare only a biennial compliance report. This should be included in the Annual Compliance Certification required by Condition (34) of this permit.
- (iv) All records, reports and notifications that are required by this regulation shall be submitted to the Agency as well as the U.S. Environmental Protection Agency.

[40 CFR Part 63 Subpart JJJJJ] [40 CFR Part 63]

**- Emission Limitations -**

(17) Particulate Matter:

- (a) In the event that emission testing demonstrates that particulate matter emissions exceed 0.00070 grains per dry standard cubic foot corrected to twelve percent carbon dioxide ("gr/DSCF corrected to 12% CO<sub>2</sub>") or 0.50 pounds per hour ("lbs/hour") when wood fuel is contributing more than thirty (30) percent ("%") of the British Thermal Unit ("BTU") input to the Main Boiler, but are less than 0.0070 gr/DSCF corrected to 12% CO<sub>2</sub> and 5.0 lbs/hour, the Permittee shall take all reasonable measures to reduce and maintain its emissions of particulate matter to the greatest extent practicable below 0.0070 gr/DSCF corrected to 12% CO<sub>2</sub> and 5.0 lbs/hour. The Permittee shall report to the Secretary those measures implemented and the degree of improvement derived from them. [10 V.S.A. §556(c) and §5-502(3)(a)(i) of the *Regulations*] [Original Agency Approval to Construction: 1/11/1988]
- (b) In the event that emission testing demonstrates that particulate matter emissions exceed 0.0070 gr/DSCF corrected to 12% CO<sub>2</sub> or 5.0 lbs/hour, when wood fuel is contributing more than thirty (30) % of the BTU input to the Main Boiler, the Main Boiler shall cease operation. Operation shall be discontinued within thirty (30) days after the Permittee or the Agency receives the results of said testing. The Main Boiler will be permitted to restart only after the Permittee has demonstrated to the satisfaction of the Secretary that all necessary corrective actions have been taken to ensure that the Main Boiler will operate in compliance with this Permit. Within sixty (60) days after restarting operation under these circumstances, compliance with the above particulate matter emission limit shall be demonstrated by emission testing to the satisfaction of the Secretary. [10 V.S.A. §556(c)] [Original Agency Approval to Construction: 1/11/1988]
- (c) Any emission testing conducted to demonstrate compliance with the above particulate matter emission limit shall be performed in accordance with 40 CFR Part 60, Appendix A, Reference Method 5 or an equivalent method approved in writing by the Agency. The sampling time for each test run shall be at least 120

minutes and the minimum sampling volume shall be sixty (60) dry standard cubic feet. [10 V.S.A. §556(c) and 40 CFR Part 60 Subpart Db §60.46b] [Original Agency Approval to Construction: 1/11/1988]

(18) Visible Emissions:

- (a) Emissions of visible air contaminants from the stacks at the Facility, except where otherwise noted in this Permit shall not exceed twenty (20) percent opacity for more than a period or periods aggregating six (6) minutes in any hour and at no time shall visible emissions exceed sixty (60) percent opacity. For wood fuel burning equipment, the exceptions as provided in paragraphs (b) and (c) of this condition shall apply.
- (b) During normal start-up operations of the wood fuel burning equipment, emissions of visible air contaminants in excess of the limits specified above may be allowed for a period not to exceed one (1) hour; however, at no time shall such emissions exceed eighty (80) percent opacity.
- (c) During normal soot blowing operations of the wood fuel burning equipment, emissions of visible air contaminants in excess of the limits specified above may be allowed for a period not to exceed thirty (30) minutes during any twenty-four (24) hour period; however, at no time shall such emissions exceed eighty (80) percent opacity.
- (d) Compliance with the above visible emission limits for the Main Boiler shall be determined by means of continuous emission monitoring. At the Secretary's discretion, compliance shall, in the alternative, be determined by observations by a trained observer in accordance with 40 CFR Part 51, Appendix M, Methods 203B and 203C, respectively. For all other installations and operations at the Facility, any emission testing conducted to demonstrate compliance with the above emission limits shall be performed in accordance with the above Federal Reference Method. [§§5-211(2), 5-211(3) and 5-404 of the *Regulations*] [Original Agency Approval to Construction: 1/11/1988]

(19) Nitrogen Oxides: Nitrogen oxides ("NO<sub>x</sub>") emissions from the Main Boiler shall not exceed 0.15 pounds per million BTU ("lb/MMBtu") of heat input and 45 lbs/hour (eight-hour rolling average) when wood is contributing more than thirty (30) % of the BTU input to the Main Boiler. [10 V.S.A. §556(c) and §§5-502(3)(a)(i) and 5-1010(a) of the *Regulations*] [AP-90-029a]

(20) Carbon Monoxide: Carbon Monoxide ("CO") emissions from the Main Boiler shall not exceed 0.30 pounds per million BTU ("lb/MMBtu") of heat input and 90 lbs/hour (eight-hour rolling average) when wood is contributing more than thirty (30) % of the BTU input to the Main Boiler. [10 V.S.A. §556(c) and §§5-502(3)(a)(i) and 5-261(3) of the *Regulations*] [Original Agency Approval to Construction: 1/11/1988]

(21) Volatile Organic Compounds: Volatile Organic Compounds ("VOC") emissions from the Main Boiler shall not exceed 0.03 pounds per million BTU ("lb/MMBtu") of heat input and 9.0 lbs/hour (1 hour average) when wood is contributing more than thirty (30) % of the BTU input to the Main Boiler.

Compliance with the above VOC emission limit shall be determined by means of using the following Federal Reference Method 25 or Method 25a combined with Method 18 (40

CFR Part 60, Appendix A). [10 V.S.A. §556(c) and §§5-502(3)(a)(i) and 5-261(3) of the *Regulations*] [Original Agency Approval to Construction: 1/11/1988]

- (22) Ammonia: Ammonia ("NH<sub>3</sub>") emissions from the Main Boiler shall not exceed 40 ppmv (parts per million on a volume basis corrected to 12% CO<sub>2</sub>)(one-hour average) when wood is contributing more than thirty (30) % of the BTU input to the Main Boiler. [10 V.S.A. §556(c) and §§5-502(3)(a)(i) and 5-261(3) of the *Regulations*] [AP-90-029a]
- (23) Hazardous Air Pollutants: Emission of federally regulated hazardous air pollutants (HAPs) from the Facility shall not equal or exceed ten (10) tons per year of any single HAP or twenty-five (25) tons per year of all HAPs combined per calendar year per year based on any rolling twelve (12) consecutive calendar month period. [40 CFR Part 63]
- (24) Hazardous Air Contaminants: Emissions of state hazardous air contaminants (HACs) from the applicable operations at the Facility shall not equal or exceed their respective Action Level (found in Appendix C of the *Regulations*) unless the Agency has reviewed and approved such HAC emission under §5-261 of the *Regulations*. [§5-261 of the *Regulations*]

**- Compliance Testing and Monitoring -**

- (25) Compliance Testing and Monitoring
- (a) Continuing compliance with the particulate matter emission standards specified in condition (17) of this Permit and the VOC emission standard specified in condition (21) of this Permit shall be determined by biennial emissions testing, to be conducted beginning in 1995 and every other year thereafter. The Permittee shall conduct such testing and furnish the Agency with a written report of the results of such testing within ninety (90) days after June 1<sup>st</sup> for those years when re-testing is required. At least thirty (30) days prior to the re-testing, the Permittee shall submit a pre-test report prepared in accordance with the Agency's "Source Emission Testing Guidelines".
- (b) Continuing compliance with the visible air contaminant emission standards specified in condition (18) of this Permit shall be determined by means of continuous emission monitoring, as required in condition (28) of this Permit. At the Secretary's discretion, compliance shall, in the alternative, be determined by observations by a trained observer in accordance with 40 CFR Part 51, Appendix M, Methods 203B and 203C, respectively, or equivalent methods approved in writing by the Agency.
- (c) Continuing compliance with the nitrogen oxides and carbon monoxide emission standards specified in conditions (19) and (20) of this Permit shall be determined by means of continuous emission monitoring, as required in condition (28) of this Permit.
- (d) Continuing compliance with the ammonia emission standard specified in condition (22) of this Permit shall be determined by continuous emission monitoring, as required in condition (28) of this Permit. [10 V.S.A. §556(c)]

**- Continuous Assurance Monitoring -**

(26) Compliance Assurance Monitoring (CAM) – NO<sub>x</sub>:

- (a) The Permittee shall use the continuous emission monitoring system for oxides of nitrogen, required in this permit, to fulfill their CAM obligation.

Table for Condition (26) Compliance Assurance Monitoring (CAM) – NO <sub>x</sub>	
Indicator	Measured NO <sub>x</sub>
Approach	Use of NO <sub>x</sub> CEM
Indicator Range	Alarm for NO <sub>x</sub> concentration >= 77 ppm (approximately equivalent to 0.14 lb/MMBTU)
Measurement location	Exhaust stack after all control systems.
QA/QC	This is covered in Condition (27) of this permit
Frequency	Continuous

[40 CFR Part 64]

(27) Compliance Assurance Monitoring (CAM) – Particulate Matter:

Table for Condition (27) Compliance Assurance Monitoring (CAM) – Particulate Matter			
Indicator	Secondary Voltage	ESP Amperage	Inspection & Maintenance
Approach	<p>The transformer-rectifier secondary voltage for each of the 5 fields is transmitted to the process control computer.</p> <p>The Unit Supervisor will monitor the readings and record the 24 hour sheet."</p>	<p>The ESP field milliamps value for each of the 5 fields is transmitted to the process control computer.</p> <p>The Unit Supervisor will monitor the readings and record on the "round sheet."</p>	<p>A. Inspection and Maintenance generated by work order and round sheets.</p> <p>B. Record TR voltage and milliamp readings.</p> <p>C. DCS alarm acknowledgement.</p> <p>D. Inspections of screws, conveyors, and rotary seal valves.</p> <p>E. Inspect and test rappers, vibrators, and insulator blowers.</p> <p>F. Test hopper high level alarms.</p> <p>G. Internal inspection of precipitator.</p>
Indicator Range	<p>Field T-R kilovolt range:</p> <p>TR-1: 30-50 TR-2: 30-50 TR-3: 20-25 TR-4: 20-25 TR-5: 20-25</p> <p>Excursions trigger an inspection, corrective action and a reporting requirement.</p>	<p>Field milliamp range:</p> <p>TR-1: 100-400 TR-2: 300-500 TR-3: 50-100 TR-4: 50-100 TR-5: 50-100</p> <p>Excursions trigger an inspection, corrective action and a reporting requirement.</p>	Computer generated work orders.
Measurement location	Transformer-rectifier	Transformer-rectifier	Inspections are performed at the ESP, in the control room, and ancillary equipment.
QA/QC	Annual calibration of voltage meter	Annual calibration of milliamp meter	Inspections shall be performed by qualified personnel.
Frequency	Record readings during every shift.	Record readings during every shift.	<p>A. Per work order.</p> <p>B. Per shift.</p> <p>C. Per shift.</p> <p>D. Daily.</p> <p>E. Weekly.</p> <p>F. Monthly.</p> <p>G. Annually.</p>

[40 CFR Part 64]

**- Continuous Emissions Monitoring -**

- (28) Continuous Emission Monitoring ("CEM") The Permittee shall install a continuous emission monitoring system (CEMS) and continuous opacity monitoring system (COMS) approved by the Agency, to measure and permanently record, CO ppm, lb/MMBtu, lb/hr, NO<sub>x</sub> ppm, lb/MMBtu, lb/hr, NH<sub>3</sub> ppm emissions, CO<sub>2</sub> content, stack gas volumetric flow rate and visible emissions discharged to the atmosphere from the Main Boiler exhaust. The Permittee shall operate and maintain such system in good working order, within manufacturer's specifications and as specified below:
- (a) Except for NH<sub>3</sub>, the CEMS and COMS shall be designed, installed, calibrated, maintained and operated in such a manner as to meet the requirements of 40 CFR Part 60, Standards of Performance for New Stationary Sources, Subparts A, and Appendix B, Performance Specification 1, 2, 3, 4 and 6, 40 CFR Part 60, Appendix F-Quality Assurance Procedures, and latest revision of the Agency's Continuous Emission Monitoring Requirements ("CEM Requirements").
  - (b) The NH<sub>3</sub> CEMS shall be designed, installed, calibrated, maintained, operated and audited in such a manner as to meet the requirements of 40 CFR Part 60, Appendix F-Procedure 1. *Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used For Compliance Determination* and the latest revision of the Agency's CEM Requirements.
  - (c) The CEMS and COMS shall be operated, calibrated and maintained continuously, independent of the Main Boiler's operation. The Permittee must measure and record valid continuous emission data for the parameters listed in this condition during all periods of the Main Boiler's operation including periods of boiler startup, shutdown, malfunction or emergency conditions, except for periods of CEMS and COMS quality assurance/quality control ("QA/QC") identified in the approved Quality Assurance Plan, routine maintenance, or uncontrolled malfunction. Nevertheless, the Permittee must obtain valid data for all CEMS parameters listed in this condition and COMS for a minimum of 90% of the Main Boiler's operating hours, based on the calendar quarter.
  - (d) The Permittee shall develop a Quality Assurance Plan ("QA Plan") for the above CEMS and COMS that is acceptable to the Agency. Said QA Plan shall satisfactorily document instrumentation, monitoring procedures, calibration procedures, QA/QC procedures, data acquisition, validation and reporting procedures as required to demonstrate compliance with this Permit. The Permittee shall formally review the QA Plan annually. The Permittee shall revise and update the QA Plan as necessary, based on the results of this review, or at the request of the Agency or at any other appropriate time to accurately document CEMS and COMS operations. The Permittee shall notify the Agency in writing of the results of the annual QA Plan review. QA Plan modifications are subject to Agency review and shall not be implemented until approval has been received from the Agency.
  - (e) The Permittee shall submit a summary report for each calendar quarter, within thirty (30) days after the close of the quarter, in a format acceptable to the Agency and in accordance with the Agency's CEM Requirements and the Permittee's approved QA Plan. The report shall include at a minimum, all valid CO lb/MMBtu, CO lb/hr, NO<sub>x</sub> lb/MMBtu, NO<sub>x</sub> lb/hr, NH<sub>3</sub> ppm (corrected to 12% CO<sub>2</sub>) and visible emissions data in excess of the emissions standards specified

- in this Permit, as well as a frequency distribution summary of all valid CO lb/MMBtu, CO lb/hr, NO<sub>x</sub> lb/MMBtu, NO<sub>x</sub> lb/hr, NH<sub>3</sub> ppm (corrected to 12% CO<sub>2</sub>) data collected, a summary of valid CEMS and COMS data capture, periods of CEMS and COMS downtime, CEMS and COMS invalid data, CEMS and COMS calibration and QA/QC results.
- (f) Continuing compliance with the CO lb/MMBtu, CO lb/hr, NO<sub>x</sub> lb/MMBtu, NO<sub>x</sub> lb/hr, NH<sub>3</sub> ppm (corrected to 12% CO<sub>2</sub>) and visible emission standards specified in this Permit shall be determined by means of a CEMS and COMS as required by this Condition.
  - (g) The CEMS CO and NO<sub>x</sub> data shall be recorded and reported in units of lb/MMBtu (of heat input) and lb/hour (NO<sub>x</sub> as NO<sub>2</sub> and both CO and NO<sub>x</sub> in terms of 8-hour rolling averages, calculated on an hourly basis). NH<sub>3</sub> data shall be recorded and reported in units of ppm (corrected to 12% CO<sub>2</sub>) in terms of 1 hour averages, calculated on an hourly basis. Valid CEMS 8-hour rolling averages during source operation must be calculated from valid CEMS 1-hour sub-average data representing at least 75% of the particular averaging period.
  - (h) The COMS shall measure and record visible emissions at least every 10-seconds. COMS data shall be reported in whole numbers in units of % Opacity in terms of 1-minute averages. Valid COMS 1-minute averages during source operation must be calculated from at least 6 valid 10-second measurements. One (1)-minute averages shall be used for determining compliance with the twenty (20) % opacity aggregated six (6) minute standard and two (2) minute rolling averages (calculated using 1-minute averages) shall be used for determining compliance with the sixty (60) % opacity and eighty (80) % opacity standards.
  - (i) The Permittee shall maintain a file of all information reported in the quarterly summaries and all other supporting information and data collected by the monitoring system for at least five (5) years from the date of collection of such data or submission of such summaries.

[§§5-405, 5-1015(a)(3)-(5) of the *Regulations*][40 *CFR* Part 60 Subpart Db 60.49b(f)]

#### - Record Keeping and Reporting -

- (29) Record keeping: In addition to the record keeping and reporting requirements specified in conditions (25) and (28) of this Permit, the Permittee shall maintain records of the following data:
  - (a) The quantity of wood fuel fired during each day and calendar month;
  - (b) The quantity of wood fuel other than whole tree chips, such as sawdust, mill chips and bark received during each calendar month;
  - (c) The quantity of propane fired during each day and calendar month in each of the following:
    - (i) Main Boiler;
    - (ii) Auxiliary Boiler;
    - (iii) Auxiliary Generator;

- (d) The total hours of operation during each calendar month of the Auxiliary Generator;
- (e) The quantity of ammonia or urea injected into the Main Boiler during each calendar month;
- (f) Electricity supplied and used by each field of the electrostatic precipitator pursuant to the inspection and maintenance plan referenced by Condition (15) of this Permit.

A report, signed by a responsible official of the Facility and containing summaries of such records shall be submitted to the Agency for each calendar quarter within thirty (30) days after the close of each quarter. [10 V.S.A. §556(c) and 40 CFR Part 60 Subpart Db §§ 60.49b(d)(1) and 60.49b(w) and 40 CFR Part 70 §70.6(a)(3)(iii)(A)]

(30) Records of all required compliance testing shall include the following:

- (a) The date, place, and time of sampling or measurements;
- (b) The date analyses were performed;
- (c) The company or entity that performed the analyses;
- (d) The analytical techniques or methods used;
- (e) The results of all such analyses; and
- (f) The operating conditions existing at the time of sampling or measurement.

[§§5-402(1), 5-405(1) and 5-1015(5) of the Regulations][40 CFR 70.6(a)(3)(ii)(A)]

(31) All records shall be retained for a minimum period of five (5) years from the date of record and shall be made available to the Agency upon request. [§§5-402(1), 5-405(1) and 5-1015(a)(7) of the Regulations]

(32) The Permittee shall notify the Agency in writing within ten (10) days of any violation, of which it is aware, of any requirements of this Permit. This notification shall include, at a minimum, the cause for the violation and corrective action or preventative maintenance taken to correct the violation. [§§5-402(1) and 5-1015(a)(6) of the Regulations]

(33) The Permittee shall notify the Agency in writing of any proposed physical or operational change at the Facility which may increase the emission rate of any air contaminant to the ambient air regardless of any concurrent emission reductions that may be achieved. If the Agency determines that a permit amendment is required, a new application and the appropriate application fee shall be submitted. The permit amendment shall be obtained prior to commencing any such change. [10 V.S.A. §556(c)] [§§5-402(1) and 5-501 of the Regulations]

- (34) Annual Compliance Certification: By February 1st of each year, the Permittee shall submit to the Agency an annual certification of compliance for the previous calendar year which ascertains and identifies the compliance status of the Facility with respect to all terms and conditions of this Permit, including but not limited to the following:
- (a) Identification of each term or condition of the permit that is the basis of the certification;
  - (b) The compliance status;
  - (c) Whether compliance was continuous or intermittent; and
  - (d) The methods used for determining the compliance status of the Facility over the reporting period.
  - (e) For any periods of deviation, report the cause of the deviation and the corrective action taken.

A copy of the compliance certification shall also be sent to the U.S. Environmental Protection Agency at the following address:

Air Compliance Clerk  
U.S. EPA-New England  
5 Post Office Sq. Suite 100 (OES04-2)  
Boston, MA 02109-3912)

[§§5-402(1) and 5-1015(a)(11) of the *Regulations*] [§114(a)(3) of the CAA] [40 CFR 70.6(c)(1)]

- (35) Annual Registration: The Permittee shall calculate the quantity of emissions of air contaminants from the Facility annually. If the Facility emits more than five (5) tons of any and all air contaminants per year, the Permittee shall register the source with the Secretary of the Agency (hereinafter "Secretary"), and shall renew such registration annually. Each day of operating a source which is subject to registration without a valid, current registration shall constitute a separate violation and subject the Permittee to civil penalties. The registration process shall follow the procedures set forth in Subchapter VIII of the *Regulations*, including the payment of the annual registration fee on or before May 15 of each year. Annual registration forms submitted to the Agency shall contain a compliance certification statement in accordance with Condition (34) of this Permit. [Subchapter VIII §§5-802, 5-803, 5-807, 5-808 of the *Regulations*]

- (36) All records, reports, and notifications that are required to be submitted to the Agency by this Permit shall be submitted to:

Agency of Natural Resources  
Air Pollution Control Division  
103 South Main Street, Bldg 3 South  
Waterbury, Vermont 05671-0402.

[§5-402(1) of the *Regulations*]

**- Standard Permit Conditions -**

- (37) These Permit conditions may be suspended, terminated, modified, or revoked for cause and reissued upon the filing of a written request with the Secretary of the Agency (hereinafter "Secretary") or upon the Secretary's own motion. Any modification shall be granted only with the written approval of the Secretary. If the Secretary finds that modification is appropriate, only the conditions subject to modification shall be reopened. The filing of a request for modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay any terms or conditions of this Permit. The Secretary may provide opportunity for public comment on any proposed modification of these conditions. If public comments are solicited, the Secretary shall follow the procedures set forth in 10 V.S.A. §556 and §556a, as amended. [10 V.S.A. §§556(d) and 556a(g)] [§§5-1008(a) and 5-1008(e) of the *Regulations*]
- (38) Cause for reopening, modification, termination and revocation of this Permit includes, but is not limited to:
- (a) Inclusion of additional applicable requirements pursuant to state or federal law;
  - (b) A determination that the permit contains a material mistake or that inaccurate information was used to establish emissions standards or other terms or conditions of the operating permit;
  - (c) A determination that the operating permit must be modified or revoked to ensure compliance with applicable requirements;
  - (d) A determination that the subject source has failed to comply with a permit condition;
  - (e) For Title V subject sources, a determination by U.S. EPA that cause exists to terminate, modify, revoke or reissue an operating permit;
  - (f) Those causes which are stated as grounds for refusal to issue, renew or modify an operating permit under §5-1008(a) of the *Regulations*; or
  - (g) If more than three (3) years remain in the permit term and the source becomes subject to a new applicable requirement.
- [§5-1008(e)(4) of the *Regulations*]
- (39) The Permittee shall furnish to the Agency, within a reasonable time, any information that the Agency may request in writing to determine whether cause exists to modify, revoke, reissue, or terminate the Permit or to determine compliance with this Permit. Upon request, the Permittee shall also furnish to the Agency copies of records required to be kept by this Permit. [10 V.S.A. §§556(c) and 556a(d)] [§5-402(1) of the *Regulations*] [40 CFR Part 70 §70.6(a)(6)(v)]
- (40) By acceptance of this Permit, the Permittee agrees to allow representatives of the State of Vermont access to the properties covered by the Permit, at reasonable times, to ascertain compliance with Vermont environmental and health statutes and regulations and with this Permit. The Permittee also agrees to give the Agency access to review and copy any records required to be maintained by this Permit, and to sample or monitor at reasonable times to ascertain compliance with this Permit. [10 V.S.A. §§556(c), 556a(d) and 557] [§§5-402(1), 5-404, and 5-1015(a)(10) of the *Regulations*]

- (41) All data, plans, specifications, analyses and other information submitted or caused to be submitted to the Agency as part of the application for this Permit or an amendment to this Permit shall be complete and truthful and, for Title V permit applications, certified by a responsible official whose designation has been approved by the Secretary. Any such submission which is false or misleading shall be sufficient grounds for denial or revocation of this Permit, and may result in a fine and/or imprisonment under the authority of Vermont statutes. [10 V.S.A. §§556(c) and 556a(d)] [§§5-505 and 5-1006(f) of the *Regulations*]
- (42) For the purpose of establishing whether or not a person has violated or is in violation of any condition of this Permit, nothing in this Permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [10 V.S.A. §§556(c) and 556a(d)]
- (43) Any permit noncompliance could constitute a violation of the federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [10 V.S.A. §§556(c) and 556a(d)] [§§5-1008(a) and 5-1008(e) of the *Regulations*]
- (44) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this Permit. [10 V.S.A. §§556(c) and 556a(d)]
- (45) No person shall build, erect, install or use any article, machine, equipment or other contrivances, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which otherwise would constitute a violation of these *Regulations*. [§5-403 of the *Regulations*]
- (46) The provisions of this Permit are severable. If any provision of this Permit, or its application to any person or circumstances is held invalid, illegal, or unenforceable by a court of competent jurisdiction, the invalidity shall not apply to any other portion of this Permit which can be given effect without the invalid provision or application thereof. [10 V.S.A. §§556(c) and 556a(d)]
- (47) This Permit does not convey any property rights of any sort or any exclusive privilege, nor does it authorize any injury to private property or any invasion of personal rights. [10 V.S.A. §§556(c) and 556a(d)]
- (48) All subsequent owners and/or operators of this Facility must request an amendment and transfer of this Permit prior to commencing any operations covered by this Permit. All subsequent owners and/or operators shall submit to the Agency as part of the request for amendment all such information the Agency deems necessary to establish legal ownership and/or interest in the property and all such information the Agency deems necessary to ensure the new owners and/or operators will construct and operate the Facility in compliance with the *Regulations* and this Permit. The terms and conditions of this Permit shall remain in full force and effect after submittal of the request for amendment and until the issuance of an amended Permit or denial. Should the

Secretary deny the request, the new owner and/or operator must take whatever action is necessary to comply with the denial. [10 V.S.A. §§556 and 556a] [§§5-501, 5-1004, and 5-1013(a) of the *Regulations*]

- (49) Conditions (1) – (10), (12), (16) and (18) – (20) are derived from the new source review requirements of Subchapter V of the *Regulations*. With the exception of the cited new source review conditions, this Operating Permit shall expire as indicated on cover page to this Permit. The Permittee shall submit to the Agency a complete application for renewal of the Operating Permit at least twelve (12) months before the expiration of the Operating Permit. If a timely and administratively complete application for an operating permit renewal is submitted to the Secretary, but the Secretary has failed to issue or deny such renewal before the end of the term of this Operating Permit, then the Permittee may continue to operate the subject source and all terms and conditions of this Operating Permit shall remain in effect until the Secretary has issued or denied the operating permit renewal. However, this Operating Permit shall automatically expire if, subsequent to the renewal application being determined or deemed administratively complete pursuant to §5-1006 of the *Regulations*, the Permittee fails to submit any additional information required by the Secretary as well as information pertaining to changes to the Facility within thirty (30) days or such other period as specified in writing by the Secretary. [§§5-1011 and 5-1012(a) of the *Regulations*] [§§5-1005(c) and 5-1012 of the *Regulations*]
- (50) The conditions of this Permit as set forth above supersede all conditions contained in all prior Permits issued by the Agency to the Permittee for this Facility. [10 V.S.A. §§556(c) and 556a(d)]

The Agency's issuance of this Air Pollution Control Permit relies upon the data, judgment, and other information supplied by the Permittee. The Agency makes no assurances that the air contaminant source approved herein will meet performance objectives or vendor guarantees supplied to the source Permittee. It is the sole responsibility of the Permittee to operate the source in accordance with the conditions herein and with all applicable state and federal standards and regulations.

Dated this 16<sup>th</sup> day of May, 2011, in the town of Waterbury, county of Washington, state of Vermont.

Agency of Natural Resources

David K. Mears, Commissioner  
Department of Environmental Conservation

By: Richard A. Valentinetti  
Richard A. Valentinetti, Director  
Air Pollution Control Division

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A2 –File: Ryegate Associates Power Station