

#AOP-03-024  
DEC#NS87-0011  
Operating Permit Expiration Date: January 18, 2010

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: January 18, 2005**

Owner/Operator: Cersosimo Lumber Company, Inc.  
1103 Vernon Street  
Brattleboro, Vermont 05301-8615

Source: Sawmill and kiln drying of lumber (Main Yard)  
Cersosimo Lumber Company, Inc.  
1103 Vernon Street  
Brattleboro, Vermont 05301

## **FINDINGS OF FACT**

### (A) FACILITY DESCRIPTION

Cersosimo Lumber Company, Inc. (also referred to herein as “Permittee”) owns and operates the sawmill referred to as the Main Yard (also referred to herein as “Facility”) at 1103 Vernon Street in Brattleboro, Vermont. This is also Cersosimo Lumber’s main corporate office location. The Facility saws hardwood and softwood logs into boards which are then kiln dried on site. The kiln dried boards are then planed, graded and stored for shipment. The Permittee has proposed to increase the annual fuel limit at the Facility from 18,000 to 20,000 tons of wood fuel. In addition the Permittee has proposed to burn green wood waste exclusively and separate the dry wood waste from the wood fuel for sale. The particulate emissions from the dry wood waste will be controlled with a new fabric filter. The existing pneumatic wood conveying system will be used as backup for the proposed dry wood waste line with the associated fabric filter.

The Facility consists of a debarking machine, various saws, wood waste conveying equipment with cyclones, a wood chipper, planing equipment, two 600 HP (32 MMBtu/hr input each) wood fired boilers, and 26 dry kilns.

#### Existing Equipment

- 600 H.P. (32 MMBtu/hr<sup>1</sup>) wood boiler (Dillon boiler), PM emissions controlled by multiclone, installed 1975
- 600 H.P. (32 MMBtu/hr) wood boiler (IBC boiler), PM emissions controlled by multiclone, installed 1985
- 26 dry kilns, total maximum annual capacity of 30 million board feet
- Pneumatic Wood Conveying System
  - Indoor bin cyclone (#8)<sup>3</sup> 1,059 acfm<sup>2</sup>
  - Outdoor bin cyclone (#18)<sup>3</sup> 5,339 acfm
  - 1,2 Sided Planer cyclone (#32) 6,144 acfm
  - Hog shop planer cyclone (#38) 13,771 acfm

#### Proposed Equipment

- Dry wood waste handling system, Torit 156 RAW10-AW baghouse, 11,587 acfm, air to cloth ratio of 5.7:1, manufactured 2004

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

<sup>2</sup> acfm – design air flow rate in actual cubic feet per minute.

<sup>3</sup> These two cyclones will no longer handle any dry wood waste after the installation of the new Torit baghouse. The cyclones will handle only green wood waste, which is not considered a PM source, and therefore these cyclones are no longer considered a source of emissions.

### (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(4) [Wood products industries] and (6)(b) [Wood fuel-burning equipment of greater than 90 H.P. rated output] 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 5-502 of the *Regulations* and the following "Permit to Operate" approvals pursuant to 10 VSA §556a and Title V of the federal Clean Air Act.

<b>Prior Agency Approvals and Actions</b>	
Date of Action	Description of Agency Approval/Action
December 16, 1988	#AP-88-034 – Agency Permit to Construct IBC boiler at the Facility. Boiler underwent MSER review.
August 5, 1994	#AP-94-012 – Agency Permit to Construct approval for the modification of the Facility to add three new kilns and the subsequent increase in steam and fuel demand. The permitted annual wood waste use increased from 14,400 tons to 18,000 tons.
April 23, 1999	#AOP-95-056 – Initial Title V Permit to Operate approval for Facility.

(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.

The Facility currently operates under a Permit to Operate issued on April 23, 1999. The allowable emissions from the Facility are estimated to be greater than ten (10) tpy and emissions of particulate matter (PM) are estimated to be in excess of the one-hundred (100) tpy threshold for applicability of 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:

Allowable Air Contaminant Emissions (tons/year) <sup>1</sup>						
PM/PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOCs	Total Criteria	HAPs <sup>2</sup>
150.8	2.2	19.4	52.8	35.4	>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. Combined allowable HAP emissions equals 3.43 tpy.

(E) REVIEW FOR THE PERMIT TO CONSTRUCT

(a) New Source Review Designation

The Facility, prior to the construction of the proposed modification, is designated as a major stationary source of air contaminants since it has allowable emissions of a single air contaminant of fifty (50) tons per year or greater. Consequently, any *modification* of the source that would result in a significant increase in emissions of any air contaminant, as defined in §5-101 of the *Regulations*, is designated as a major modification and is subject to review under §5-501 and §5-502 of the *Regulations*. The proposed project identified in Findings of Fact (A) above, together with all previous minor modifications constructed at the Facility since July 1, 1979, and which have not been previously reviewed under §5-502 of the *Regulations*, will not result in a significant increase in emissions. Consequently, the proposed modification is designated as a non-major modification and is not subject to the requirements of §5-502 of the *Regulations*.

(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 proposed project is designated as a non-major modification of a stationary source and therefore is not subject to review under the MSER requirements in §5-502 of the *Regulations*.

(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.

Based on the level of emissions from this Facility, the project is not expected to cause or contribute to a violation of any ambient air quality standard or significantly deteriorate air quality. Therefore, an air quality impact evaluation was not required by the Agency for the proposed project.

(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) - Prohibition of Visible Air Contaminants, Installations Constructed Subsequent to April 30, 1970.
Section 5-221(1) - Prohibition of Potentially Polluting Materials in Fuel, Sulfur Limitation in Fuel.
Section 5-231(1) - Prohibition of Particulate Matter; Industrial Process Emissions.
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.
Section 5-402 – Written Reports When Requested.
Section 5-403 – Circumvention.
Section 5-1010 – Reasonably Available Control Technology.
Subchapter VIII – Registration of Air Contaminant Sources.

(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"). RACT for the wood fired boilers has been determined to be periodic combustion efficiency tests, annual boiler tune-up, and the development and implementation of an operation and maintenance plan (O&M plan). Additional RACT requirements may be imposed in the future upon the renewal of this or any future operating permit for the Facility.

(iii) Federal Requirements

<b>Applicable Requirements from Federal Regulations and the Clean Air Act</b>
40 <i>CFR</i> Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units: §60.42c Standards for sulfur dioxide; §60.43c Standards for particulate matter; §60.48c Reporting and recordkeeping requirements. Applicable to all units of 10 MMBTU per hour or greater manufactured after June 9, 1989. Both boilers at the Facility were manufactured prior to June 9, 1989, and therefore the boilers at the Facility are not subject to this regulation.
Clean Air Act §§114(a)(3), 502(b), and 504(a)-(c); 40 <i>CFR</i> Part 70 §§70.6(a)(3)(i)(B) and 70.6(c)(1); and 40 <i>CFR</i> 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. The uncontrolled emissions of PM from the boilers and the uncontrolled (cyclone instead of a fabric filter) emissions from the dry wood waste handling system are each less than the Title V major source threshold for PM. Therefore there is no equipment at the Facility that is subject to this regulation.
40 <i>CFR</i> Part 70.6 (a)(3)(i)(B) – Periodic Monitoring. Requires each permit to contain periodic monitoring sufficient to yield reliable data from the relevant time period. Periodic Monitoring is the regulatory authority for the requirement to install and operate a COMS at the Facility.

The Facility is currently not subject to any New Source Performance Standards (NSPS) or National Emission Standards for Hazardous Air Pollutants (NESHAP).

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

The Facility currently operates under the confines of a Permit to Construct and Operate issued on April 23, 1999 (#AOP-95-056). 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 Permit to Operate (#AOP-03-024).

(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. All 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 semi-annual 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 ("HMSE") 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 is exempt from this section. Solid fuel burning equipment installed or constructed prior to January 1, 1993 is also exempt from this section. HAC emissions from the lumber kilns are the only regulated source of HAC emissions at the Facility, and these emissions do not exceed any respective Action Level. Therefore, the Facility is not subject to §5-261 of the *Regulations* at this time.

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. Therefore, pursuant to 10 VSA §§556 and 556a, as amended, the Agency hereby proposes to issue 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) or their equivalent as approved by the Agency. [10 V.S.A. §§556(c) and 556a(d)]
- (2) The Permittee shall control emissions from each of the wood fired boilers with a separate multiclone particulate control device on each boiler or an equivalent device capable of achieving similar emission reductions if approved in writing by the Agency. All elements of these air pollution control systems shall be maintained in good working order at all times and operated in accordance with the manufacturer's operation and maintenance recommendations. Each air pollution control system shall be in operation whenever the respective emission source is in operation. [10 V.S.A. §§556(c) and 556a(d)]
- (3) The Permittee shall control emissions from the dry wood waste system with a fabric filter or an equivalent device capable of achieving similar emission reductions if approved in writing by the Agency. The fabric filter collector shall be equipped with a pressure drop measurement device which continuously measures and displays the pressure drop across the fabric filter collector (e.g., manometer or magnehelic). All elements of the fabric filter, including the pressure drop measurement device, shall be maintained in good working order at all times and shall be operated in accordance with the manufacturer's operation and maintenance recommendations. The fabric filter shall be in operation whenever the respective emission source it serves is in operation. The Permittee shall use the pressure drop measurement device to maintain the pressure drop across the fabric filter within acceptable range as specified by the manufacturer. [10 V.S.A. §§556(c) and 556a(d)] [§5-1010 of the *Regulations*]
- (4) The Permittee shall control combustion air for each wood boiler with an oxygen trim meter and variable speed fan. The variable speed fan shall be controlled automatically by a computer control system with input from the oxygen trim meter. This system shall be installed and in operation on both wood boilers no later than one year from the issuance of this permit. [§5-404 of the *Regulations*]
- (5) Stack heights: The exhaust gases from the wood fired boilers shall be vented vertically through a stack which extends a minimum of sixty-five (65) feet above the stack base grade elevation. The exhaust gases from the Torit baghouse shall be vented vertically upward through a stack which extends a minimum of twenty-four (24) feet above the hopper outlet

of the baghouse. The Permittee shall at the request of the Agency increase the stack height of any respective stack if, in the judgment of the Agency based on inspections of the actual operations at the Facility, proper or adequate dispersion can not be maintained at the current stack height. The stacks 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)]

#### - Operational Limitations -

- (6) Wood: The annual fuel consumption in the wood fired boilers shall not exceed a combined 20,000 tons of wet, as-fired wood fuel, based on any rolling twelve (12) consecutive calendar month period. [10 V.S.A. §§556(c) and 556a(d)]
- (7) Wood: The Permittee shall assure that during each shift of boiler operation at least one employee is present who has received instruction in the proper operation and monitoring of boilers to achieve optimum combustion efficiency. [10 V.S.A. §§556(c) and 556a(d)]
- (8) Wood: Only natural wood as defined in the *Regulations*, as well as sawdust or other wood waste generated wholly from natural wood, may be used as fuel in the wood fuel burning equipment without the prior written approval of the Agency. Only green wood may be used as fuel, and specifically kiln dried wood waste may not be used as fuel. In addition, the wood fuel burning equipment shall only be used when there is a need for space or process heat and shall not be used where the primary purpose is the reduction in volume and weight of an unwanted material. [10 V.S.A. §§556(c) and 556a(d)] [§5-101 of the *Regulations*]
- (9) Engines: 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. Engines installed after July 1, 1999 must comply with the emission standards of §5-271 of the *Regulations* immediately upon installation. Engines installed prior to July 1, 1999 must comply with the emission standards of §5-271 of the *Regulations* by no later than July 1, 2007. Installation of any size stationary reciprocating internal combustion engine 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*]
- (10) Open Burning: The Permittee shall burn only natural wood in any open burn pile and shall only burn in accordance with this Permit and the *Regulations*. For the purposes of this Permit, natural wood shall be defined as trees, including logs, boles, trunks, branches, limbs, and stumps, lumber including timber, logs or slabs, especially when dressed for use. This definition shall also include pallets which are used for the shipment of various materials so long as such pallets are not chemically treated with any preservative, paint, or oil. This definition shall not extend to other wood products such as sawdust, plywood, particle board and press board. Prior to conducting any open burning of natural wood, the Permittee shall notify the Air Pollution Control Officer and shall obtain approval from the Air Pollution Control Officer to conduct open burning at the Facility, if required. [§5-202 of the *Regulations*]

**- Emission Limitations -**

- (11) Particulate Matter [Dillon Boiler]: Emissions of particulate matter from the Dillon wood fired boiler shall not exceed 0.45 grains per dry standard cubic foot (gr/dscf) of undiluted exhaust gas corrected to 12% carbon dioxide.

Any emission testing conducted to demonstrate compliance with the above emission limit shall be performed in accordance with 40 *CFR* Part 60, Appendix A, Reference Method 5 or an alternative method which has been published in 40 *CFR*, provided the federally approved alternative method has been accepted in writing by the Agency before testing. [10 V.S.A. §§556(c) and 556a(d)] [§§5-231(3) and 5-404 of the *Regulations*]

- (12) Particulate Matter [IBC Boiler]: Emissions of particulate matter from the IBC wood fired boiler shall not exceed 0.20 grains per dry standard cubic foot (gr/dscf) of undiluted exhaust gas corrected to 12% carbon dioxide.

Any emission testing conducted to demonstrate compliance with the above emission limit shall be performed in accordance with 40 *CFR* Part 60, Appendix A, Reference Method 5 or an alternative method which has been published in 40 *CFR*, provided the federally approved alternative method has been accepted in writing by the Agency before testing. [10 V.S.A. §§556(c) and 556a(d)] [§§5-231(3) and 5-404 of the *Regulations*]

- (13) Particulate Matter [Fabric Filter]: Emissions of particulate matter from the fabric filter associated with the dry wood waste handling system shall not exceed 0.02 grains per dry standard cubic foot (gr/dscf) of undiluted exhaust gas at standard conditions on a dry basis.

Any emission testing conducted to demonstrate compliance with the above emission limit shall be performed in accordance with 40 *CFR* Part 60, Appendix A, Reference Method 5 or an alternative method which has been published in 40 *CFR*, provided the federally approved alternative method has been accepted in writing by the Agency before testing. [10 V.S.A. §§556(c) and 556a(d)] [§§5-231(1) and 5-404 of the *Regulations*]

- (14) Visible Emissions [Facility Wide]: Emissions of visible air contaminants from any installation 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 (a) and (b) of this condition shall apply.

(a) During normal startup 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.

(b) 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.

Any emission testing conducted to demonstrate compliance with the above emission limits shall be performed in accordance with the proposed Federal Reference Method F-1 contained in the Federal Register Vol.51, No.168, pp. 31076-31081, August 29, 1986 or an equivalent method approved in writing by the Agency. [§§5-211(2), 5-211(3) and 5-404 of the *Regulations*]

- (15) Volatile Organic Compounds: Emissions of volatile organic compounds from the Facility shall not equal or exceed fifty (50) tons per year based on any rolling twelve (12) consecutive calendar month period. [§5-502 of the *Regulations*]
- (16) 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 year based on any rolling twelve (12) consecutive calendar month period. [40 *CFR* Part 63]
- (17) 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*]
- (18) Fugitive Emissions: The Permittee shall take reasonable precautions at all times to control and minimize emissions of fugitive particulate matter from the operations at the Facility. This shall include but not be limited to the following:
  - (a) Taking precautions to prevent fugitive particulate matter (ie. wood dust) during the handling and disposal of the wood waste material collected from the wood processing operations. Any drop loading of wood waste material from a silo, storage bin or similar unit into a receiving vehicle or trailer for subsequent removal shall be done in an area enclosed on at least three sides in order to prevent wind currents from reentraining the material. The Agency may require additional dust control measures, such as requiring an enclosed chute or stocking be used to limit the drop distance, based on Agency inspections of the actual operations;
  - (b) The use of wet suppression, calcium chloride applications or other dust control measures as necessary to minimize fugitive dust from all unpaved roads and traffic areas, aggregate handling operations and storage piles at the Facility. The paved portions of the haul roads and traffic areas shall be periodically sprayed with water and swept to prevent buildup of material that may generate fugitive dust emissions; and
  - (c) The covering of all trucks owned or operated by the Permittee while operated on public roadways and loaded with materials that may generate fugitive dust emissions;

[10 V.S.A. §556(c) and 556a(d)] [§5-231(4) of the *Regulations*]

- (19) Nuisance and Odor: 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. The Permittee shall not discharge, cause, suffer, allow, or permit any emissions of objectionable odors beyond the property line of the premises. [§5-241(1) and (2) of the *Regulations*]

**- Compliance Testing and Monitoring -**

- (20) Boiler combustion efficiency: The Permittee shall perform periodic testing of its boiler exhaust gases to determine the concentrations CO and either CO<sub>2</sub> or O<sub>2</sub> in the exhaust gases. Beginning on the day of the initial emission testing required by this Permit, the Permittee shall perform said testing of the CO<sub>2</sub>/O<sub>2</sub> and CO concentrations at least once each week. The Permittee shall perform said testing of the CO<sub>2</sub>/O<sub>2</sub> and CO concentrations using methods which have been approved in writing in advance by the Agency. Any instruments and/or equipment used for said testing shall be calibrated and maintained in accordance with the manufacturer's recommendations. Each time testing of the boiler exhaust gas is conducted to determine the concentrations of CO<sub>2</sub>/O<sub>2</sub> and CO, the Permittee shall calculate and record the combustion efficiency of the boiler using methods approved in writing in advance by the Agency. Combustion efficiency shall be determined using the following equation:

$$CE (\%) = \frac{CO_2}{CO_2 + CO} \times 100$$

Where;

CE = Combustion efficiency,  
 CO<sub>2</sub> = % by volume of carbon dioxide in the flue gas on a dry basis, and  
 CO = % by volume of carbon monoxide in the flue gas on a dry basis.

[§§5-404(1) and 5-405(1) of the *Regulations*] [§5-1010 of the *Regulations*]

- (21) The Permittee shall perform periodic particulate matter emission testing on the Dillon and IBC boilers. Said testing shall be performed in order to demonstrate compliance with the emission limits contained in Conditions (11) and (12) of this Permit. At least 30 days before performing the emission testing required herein, the Permittee shall submit to the Agency a pretest report prepared in accordance with the Agency's "Source Emission Testing Guidelines."
- (a) The Permittee shall perform the initial emission testing and shall furnish the Agency with a written report of the results within 180 days after issuance of this permit.
- (b) Once the initial testing has been completed, the Permittee shall repeat the above emission testing of the boilers and submit a written report of the results once every five calendar years after the date of the initial emission testing.

[§§5-402(1) and 5-404(1) of the *Regulations*]

- (22) The Permittee shall install a continuous opacity monitoring system (COMS) to measure and permanently record the visible emissions (opacity) from the IBC and Dillon wood-fired boilers. The COMS shall be installed, calibrated, operated and maintained according to the manufacturer's recommendations, in good working order and as specified below:
- (a) The COMS shall be installed following the manufacturer's guidelines including sight glass assembly and purge air. The COMS shall be placed in a location that provides a representative measurement of the total visible emissions from the boiler, is free from water droplet formation, is easily accessible for maintenance and meets the manufacturer's ambient operating temperature, maximum pathlength and output wire length specifications.
  - (b) The COMS shall have a measurement range of 0-100% opacity, be accurate to +/- 5% and permanently record % opacity using a digital data acquisition system or analog strip chart recorder, at a minimum resolution of 1% opacity.
  - (c) The COMS must be operated continuously, recording acceptable opacity data during all periods of boiler operation including those periods of boiler startup, shutdown and malfunction; except for periods of COMS calibration, routine maintenance or uncontrolled malfunction. Nevertheless, the Permittee must take timely and appropriate corrective actions following the manufacturer's troubleshooting guidelines to minimize unacceptable COMS data during all periods of boiler operation.
  - (d) The Permittee shall calibrate the COMS (and permanent data-recording device) and verify the COMS cross-stack alignment following the manufacturer's guidelines at least once every 3 months or whenever necessary to ensure the system is operating within the manufacturer's guidelines and this permit requirement. Following the calibration and alignment check, the Permittee shall perform a dynamic verification as follows: Block the COMS light beam crossing the measurement location with a non-reflective cloth or material and verify the COMS output is 100% opacity +/- 5% opacity on the data recording device.
  - (e) The Permittee shall set the COMS internal alarm opacity set point to 15% and delay time to 2 minutes, which levels are intended to provide for continuous compliance with the visible emissions limits identified in this permit.
  - (f) At a minimum, the Permittee shall perform the following routine maintenance on the COMS: The proper operation of the COMS and data recording device shall be verified daily. The COMS protective windows and sight-glasses on both the light source and receiver components shall be cleaned weekly or as necessary to ensure opacity readings are not biased due to soot buildup. The COMS lamp shall be replaced annually. The lamp "brightness" (if applicable) shall be adjusted per manufacturer's guidelines and the COMS recalibrated per condition (d) above.
  - (g) The Permittee shall maintain a dedicated logbook for the COMS, which will be used to document all activities associated the operation of the COMS which are necessary to comply with this permit condition, including calibration, routine

maintenance, corrective action, and malfunction. All COMS downtime during boiler operations must be noted on the permanent data record and dedicated logbook. All data records for the COMS shall be marked to show the times of both start-up and shutdown of the boiler.

- (h) The Permittee shall maintain a file suitable for inspection including all permanent continuous records of percent opacity, logbooks for maintenance, calibration, corrective action and any other associated information concerning the COMS for at least five (5) years from the date of collection of such data.
- (i) The Permittee shall perform daily review of the recorded COMS data against the requirements of Condition (14) of this Permit. If, on the basis of the continuous opacity monitoring required by this condition, it is determined that the boilers are operating outside of acceptable standards specified in this Permit, the Permittee shall, through the application of good engineering practices, immediately review the major operating systems in the Facility in an effort to determine whether any such system has malfunctioned and will undertake its best efforts to rectify the malfunctions, if any, and to bring the boiler(s) back into compliance.

[§§5-405(1) and 5-1015(a)(3) and (4) of the *Regulations*] [40 CFR Part 70.6]

- (23) O&M [Wood Waste Dust Collection System Fabric Filter]: The Permittee shall develop and implement an operation and maintenance (O&M) plan for the wood waste dust collection system fabric filter within one-hundred eighty (180) days after the issuance of this Permit. The purpose of said plan shall be to ensure that the fabric filter remains in continuous compliance with the conditions of this Permit. The operation and maintenance plan shall include, but not be limited to, a description of routine maintenance and inspection procedures, provisions for maintaining records of such maintenance and inspections as well as findings of those inspections and any corrective actions which were taken. Said operation and maintenance plan shall be present at the facility at all times and shall be made available to representatives of the Agency upon request. The Permittee shall revise this plan at the Agency's request or on its own motion to reflect equipment or operational changes. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]
- (24) Boiler O&M: The Permittee shall develop and implement an operation and maintenance plan for its boilers within one-hundred eighty (180) days after the issuance of this Permit. The purpose of said plan shall be to ensure that the boiler remains in continuous compliance with the opacity and particulate emission limits contained in this Permit. The operation and maintenance plan shall include, but not be limited to:
  - (a) the procedures to be followed to increase combustion efficiency whenever the combustion efficiency is determined to be less than the trigger level;
  - (b) identification of the combustion efficiency trigger level, which will trigger action under said plan;
  - (c) identification of the opacity trigger level, which will trigger action under said plan;
  - (d) descriptions of routine inspection and maintenance procedures. Inspection and maintenance shall be performed on the oxygen trim system, variable speed fans, opacity meters, and other equipment associated with the boiler;
  - (e) provisions for maintaining records of inspections and maintenance procedures,

- including both routine activities and actions taken in response to observations of low combustion efficiency; and
- (f) provisions for calibration and maintenance of any testing instruments and/or equipment used to measure the concentrations of CO<sub>2</sub>/O<sub>2</sub> and CO in the boiler exhaust gases.

Failure to take reasonable steps, in accordance with said plan, to increase the combustion efficiency, once it has fallen below the trigger level, shall be considered credible evidence of a possible exceedance of the opacity and particulate emission limits set forth in this Permit.

Said operation and maintenance plan shall be present at the Facility at all times and shall be made available to representatives of the Agency upon request. The Permittee shall revise this plan at the Agency's request or on its own motion to reflect equipment or operational changes. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*] [§5-1010 of the *Regulations*]

### - Record Keeping and Reporting -

- (25) Records of Fuel Use: The Permittee shall maintain records of the total quantity of wood fuel consumed in the wood fired boilers, in tons of wet as-fired wood, each month. At the beginning of each month, the Permittee shall calculate the total quantity of wood fuel consumed in the boilers, in tons of wet as-fired wood, during the previous twelve (12) consecutive month period. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]
- (26) Records of Throughput: The Permittee shall maintain records of the total quantity of lumber dried in the lumber kilns, in millions of board feet, each month. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]
- (27) Records of Operating Hours: The Permittee shall maintain records of the total number of operating hours the backup wood waste handling system operates with kiln dried wood waste. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]
- (28) Within thirty (30) days after July 1 and January 1 of each year, the Permittee shall submit to the Agency a report containing the following information regarding the preceding six (6) months:
- (a) a summary of the periodic combustion efficiency calculations required by this Permit;
  - (b) a copy of the COMS logbook required by this Permit;
  - (c) a summary of all suspected periods of possible excess emissions with respect to Condition 14;
  - (d) a summary of any periods of unacceptable COMS readings, why these periods were considered unacceptable, and any actions taken to fix the problem;
  - (e) a summary of the fuel usage records required by this Permit; and
  - (f) a summary of the throughput in the lumber kilns required by this Permit.

[§§5-402(1), 5-405(1) and 5-1015(5) of the *Regulations*]

- (29) 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*]
- (30) 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*]
- (31) 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*]
- (32) The Permittee shall notify the Agency in writing of the date of initial start-up of the Torit fabric filter and dry wood waste system within fifteen (15) days after such date. [§5-402(1) 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) Compliance Certification: By February 1st of each year, the Permittee shall submit an annual certification of compliance for the previous calendar year, concurrent with the annual registration data submitted to the Agency, 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.

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

Air Technical Unit (Mail Code SEA)  
Office of Environmental Stewardship  
U.S. Environmental Protection Agency  
John F. Kennedy Federal Building  
Boston, MA 02203

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

- (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. [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) Approval to construct or modify under this Permit shall become invalid if construction or modification is not commenced within eighteen (18) months after issuance of this Permit, if construction or modification is discontinued for a period of eighteen (18) months or more, or if construction is not substantially completed within a reasonable time. The Agency may extend any one of these periods upon a satisfactory showing that an extension is justified. The term "commence" as applied to the proposed construction or modification of a source means that the Permittee either has:
- (a) Begun, or caused to begin, a continuous program of actual on-site construction or modification of the source, to be completed within a reasonable time; or
  - (b) Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the Permittee, to undertake a continuous program of actual on-site construction or modification of the source to be completed within a reasonable time.

[10 V.S.A. §556(c)] [§5-501 of the *Regulations*]

- (38) 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 re-opened. 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*]
- (39) 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*]

- (40) 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)]
- (41) 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*]
- (42) 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*]

- (43) 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)]
- (44) 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*]
- (45) 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)]
- (46) 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*]
- (47) 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)]
- (48) 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)]
- (49) 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*]
- (50) This Operating Permit shall expire on January 18, 2010. 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*]

- (51) The conditions of this Permit as set forth above supercede 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, judgement, 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 \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_, in the town of Waterbury, county of Washington, state of Vermont.

Agency of Natural Resources

Jeffrey Wennberg, Commissioner  
Department of Environmental Conservation

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