

DEC #SJ95-0113

#OP-04-020

Operating Permit Expiration Date: December 1, 2005

**State of Vermont
Agency of Natural Resources
Department of Environmental Conservation**



**Air Pollution Control Division
Waterbury, Vermont**

TITLE V
AIR POLLUTION CONTROL PERMIT TO OPERATE

Date Permit Issued: June 25, 2004

Permittees:

Owner: Dalton Hydro, LLC
26 North State Street
Salt Lake City, Utah 84103

Operator: Dirigo Paper Company
242 Canton Avenue
Milton, MA 02186

Source: Gilman Paper Mill
Riverside Avenue (P.O. Box 118)
Gilman, Vermont 05904

FINDINGS OF FACT

(A) FACILITY DESCRIPTION

Dalton Hydro, LLC and Dirigo Paper Company (also jointly referred to herein as "Permittee") own and operate, respectively, the paper mill located on Riverside Avenue in Gilman, Vermont commonly referred to as the Gilman Paper Mill (also referred to herein as "Facility"). The Facility was acquired by the Permittee through bankruptcy proceedings from American Paper Mills of Vermont, Inc. on March 21, 2003. On April 16, 2003 an amended Air Pollution Permit #OP-95-032a was issued to Dalton Hydro, LLC and Dirigo Paper Company, LLC to operate the Gilman Paper Mill. This Air Pollution Control Permit is now being transferred Dalton Hydro, LLC and Dirigo Paper Company at their request.

The operations and equipment at the Facility include the following:

- Various repulping and paper making operations and equipment
- 180 MMBtu/hr¹ (1,190 H.P.²) Zurn wood fired boiler. Inst. 1977
- (4) 42.5 MMBtu/hr No. 6 oil-fired boilers. Inst. 1920
- 150,000 gallon No.6 fuel oil storage tank. Inst. 1967
- 10,000 gallon diesel fuel oil storage tank. Inst. 1993

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

² H.P. – Boiler horsepower rated output; based on one horsepower per each 10 sq.ft. of boiler heating surface.

(B) FACILITY CLASSIFICATION

The Facility is classified as an air contaminant source under §5-401(6)(b) of the *Vermont Air Pollution Control Regulations* ("Regulations"). Under this section, a facility is classified as an air contaminant source if it operates wood fuel burning equipment larger than 90 horsepower ("H.P.") rated output. The Zurn wood-fired boiler at the Facility is rated at 1,190 H.P.

Section 5-101 of the *Regulations* defines a stationary source as any structures, equipment, installations, or operations, 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 under common control. Based on this definition, all of the equipment, operations, and structures at the Facility on Riverside Avenue in Gilman are grouped together as one stationary air contaminant source.

(C) PRIOR APPROVALS

The Facility was constructed prior to July 1, 1979 and has not undergone any modifications which warranted review pursuant to 10 *Vermont Statutes Annotated* ("V.S.A.") §556 and §5-501 of the *Regulations*. Therefore, the Facility does not currently operate under any Air Pollution Control Permit to Construct. The initial Title V Air Pollution Control Permit to Operate #OP-95-032 for the Facility was issued to American Paper Mills of Vermont, Inc. on December 1, 2000. The initial Title V permit was amended (#OP-95-032a) to be transferred to Dalton Hydro, LLC and Dirigo Paper Company, LLC on April 16, 2003.

The Facility is subject to §5-251(3) of the *Regulations*, Control of Nitrogen Oxide Emissions. Consequently, an Administrative Order was issued to Simpson Paper Company, a prior owner of the Facility, on January 4, 1995 requiring the application of reasonably available control technology ("RACT") to reduce nitrogen oxide ("NO_x") emissions from the Facility. The original administrative order was amended on January 9, 1996.

(D) PERMIT APPLICABILITY

As noted in Finding of Fact (B) above, the Facility is classified as a source of air contaminants under §5-401 of the *Regulations*. Additionally, the Facility has estimated allowable emissions of all air contaminants greater than 10 tons per year. Therefore, pursuant to Title 10 V.S.A. §556a and §§ 5-1002, 5-1003, and 5-1005 of the *Regulations*, the Facility is classified as a Subchapter X major source and the Permittee must obtain an operating permit.

The Facility's allowable emissions of NO_x and carbon monoxide ("CO") and particulate matter ("PM") are each greater than the major source threshold of 100 tons per year. Therefore, the Facility is designated as a Title V subject source and is subject to the federal operating permit requirements of Title 40, Part 70 of the *Code of Federal Regulations* ("CFR").

(D) APPLICATION PROCESSING AND PUBLIC PARTICIPATION

On November 1, 1995 the Agency received a Title V operating permit application for the Facility from Simpson Paper Company, a prior owner of the facility. The Agency reviewed this application and determined that it was administratively complete on November 14, 1995. Pursuant to 10 V.S.A. §556 and §556a, the Agency published notice in the *Caledonian Record* that it had received an administratively complete operating permit application. The affected state of New Hampshire was notified of the Agency's receipt of the application on February 16, 1996.

The Facility subsequently changed ownership from Simpson Paper Company to American Paper Mills of Vermont, Inc. On September 29, 2000 the Agency declared the recertified application technically complete because it had determined that adequate information and documentation regarding the operation of the Facility had been submitted. On October 5, 2000 the Agency published a notice in the *Caledonian Record* of its issuance of a draft Air Pollution Control Permit to operate the Facility. The notice solicited public comments on the application, the Agency's technical review, and the proposed decision. The notice also provided the public an opportunity to request an informational meeting. The deadline to request a public meeting was October 30, 2000. The Agency did not receive a request for an informational meeting. The public comment period closed on November 6, 2000. The Agency received some minor comments from the Facility and has incorporated them into the final permit.

The affected states of New Hampshire, Massachusetts and New York, along with the U.S. Environmental Protection Agency ("EPA") were notified of the Agency's issuance of a draft permit on October 5, 2000. The Agency forwarded the proposed permit to EPA on November 6, 2000 for a 45 day review and comment period. No comments were received from the EPA regarding the operating permit. The Agency then transferred the permit to the Permittees, Dalton Hydro, LLC and Dirigo Paper Company, LLC as an

“administrative operating permit amendment” in response to their request for transfer. The Agency is now transferring the permit to the new Permittees, Dalton Hydro, LLC and Dirigo Paper Company as an “administrative operating permit amendment”.

(D) NEW SOURCE REVIEW DESIGNATION

The Facility is designated as a major stationary source of air contaminants, as defined in § 5-101 (65) of the *Regulations*. The Permittee is not proposing to modify the Facility and therefore is not subject to review under 10 V.S.A. §556 or §5-502 of the *Regulations*.

(D) MOST STRINGENT EMISSION RATE DETERMINATION

Pursuant to §5-502 of the *Regulations* each new major source and 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 allowable emissions increase, respectively. The Permittee is not proposing to modify the Facility and therefore is not subject to review under §5-502 of the *Regulations*.

(D) AMBIENT AIR QUALITY IMPACT EVALUATION

An air quality impact review is not required for the issuance of an Air Pollution Control Permit to Operate.

(D) ALLOWABLE EMISSIONS

Based on the information provided by the Permittee, the Agency has determined that the Facility’s allowable emissions, as defined in §5-101 of the *Regulations*, are:

Table 1: Facility Allowable Emissions

Facility Allowable Emissions, tons/year						
PM/PM ₁₀	SO ₂	NO _x	CO	VOC	Pb	HAPs
414	85	251	2,366	69	negligible	9

(D) APPLICABLE REQUIREMENTS

The operations at the Facility are subject to the state and federal laws and regulations listed below. The requirements of these laws and regulations are contained in the conditions of this Permit.

(A) State Requirements (*Vermont Air Pollution Control Regulations*):**Table 2: Applicable State Requirements**

Applicable Requirement from Vermont Air Pollution Control Regulations
§5-201 - Open Burning
§5-211(1) - Prohibition of Visible Air Contaminants, Installations Constructed Prior to April 30, 1970
§5-211(2) - Prohibition of Visible Air Contaminants, Installations Constructed After April 30, 1970
§5-211(3) - Prohibition of Visible Air Contaminants, Installations Constructed After April 30, 1970, Exceptions for Wood Fuel Burning Equipment
§5-221(1) - Prohibition of Potentially Polluting Materials in Fuel, Sulfur Limitation in Fuel
§5-221(2) - Prohibition of Potentially Polluting Materials in Fuel, Waste Oil
§5-231(1)(b) - Prohibition of Particulate Matter; Industrial Process Emissions
§5-231(3) - Prohibition of Particulate Matter; Combustion Contaminant Emissions
§5-231(4) - Prohibition of Particulate Matter; Fugitive Particulate Matter
§5-241 - Prohibition of Nuisance and Odor
§5-251(3) - Control of Nitrogen Oxides Emissions, RACT
§5-253.5 - Stage 1 Vapor Recovery Control at Gasoline Dispensing Facilities
§5-253.14 - Solvent Metal Cleaning
§5-261 - Control of Hazardous Air Contaminants
§5-802 - Requirement of Registration
§5-1010 - Reasonably Available Control Technology for Subchapter X Major Sources

(B) State Requirements (*Administrative Order Issued January 9, 1996 : NO_x RACT*)

The Permittee is subject to §5-251(3), *Control of Nitrogen Oxides Emissions, of the Regulations* and consequently operates under the confines of an Administrative Order issued on January 9, 1996. The conditions within the Administrative Order are considered applicable requirements pursuant to §5-1002 (d) of the *Regulations*. These requirements are summarized below and are incorporated into this Permit to Operate. This Permit to Operate supercedes the Administrative Order issued January 9, 1996.

Table 3: Applicable Requirements from Administrative Order NO_x RACT

Applicable Requirement from Administrative Order, January 9, 1996 (NO_x RACT)
<i>Annual fuel consumption by four Babcock and Wilcox boilers not to exceed 495,900 gallons.</i>
<i>Zurn wood-fired boiler to minimize generation of air contaminants through good operating practices and optimization of overfire and underfire air.</i>
<i>Emissions of NO_x from the Zurn wood-fired boiler shall not exceed 0.3 lb/ Million British Thermal Units ("MMBtu") and 54 lbs/hour, based on a twenty four hour rolling average, except during start-up and shutdown.</i>
<i>Emissions of NO_x from the Zurn wood-fired boiler during start-up and shutdown shall not exceed 540 lb/hr (1 hour average).</i>
<i>Emissions of CO from the Zurn wood-fired boiler shall not exceed 3.0 lb/MMBtu and 540 lbs/hour, based on a twenty four hour rolling average, except during start-up and shutdown.</i>
<i>Emissions of CO from the Zurn wood-fired boiler during start-up and shutdown shall not exceed 1100 lbs/hr (1 hour average).</i>
<i>Calibrate, operate and maintain CEM on exhaust from Zurn wood-fired boiler. Report CEM data to Agency quarterly.</i>
<i>Develop and follow Malfunction Abatement Plan for Zurn wood-fired boiler.</i>
<i>Maintain records of fuel consumed in four Babcock and Wilcox boilers.</i>

(C) Federal Requirements:

There are no federal New Source Performance Standards (NSPS) or National Emission Standards for Hazardous Air Pollutants (NESHAPs) that apply to the Facility.

(D) Nonapplicable Requirements

The Permittee has requested permit shields pursuant to §5-1015(a)(11) of the Regulations. Permit shields for the following regulations have been granted.

Table 4: Nonapplicable Requirements

Nonapplicable Regulations
<i>- Federal Regulations -</i>
<i>40 CFR, Part 60.40 et seq. NSPS, Subpart D</i>
<i>40 CFR, Part 60.40 et seq. NSPS, Subpart Da</i>
<i>40 CFR, Part 60.40 et seq. NSPS, Subpart Db</i>
<i>40 CFR, Part 60.40 et seq. NSPS, Subpart Dc</i>
<i>40 CFR, Part 60.280 et seq. NSPS, Subpart BB</i>
<i>40 CFR, Part 60.110 et seq. NSPS, Subpart K</i>
<i>40 CFR, Part 60.110a et seq. NSPS, Subpart Ka</i>
<i>40 CFR, Part 60.110b et seq. NSPS, Subpart Kb</i>
<i>- Vermont Air Pollution Control Regulations -</i>
<i>§5-251(1) - Control of Nitrogen Oxide Emissions</i>
<i>§5-252 - Control of Sulfur Dioxide Emissions</i>
<i>§5-253.1 - Control of Volatile Organic Compounds: Petroleum Liquid Storage in Fixed Roof Tanks</i>
<i>§5-253.15 - Coating of Miscellaneous Metal Parts</i>

(D) STATE AND FEDERAL ENFORCEABILITY

All conditions of this Permit are enforceable by both state and federal authorities.

(D) REASONABLY AVAILABLE CONTROL TECHNOLOGY REVIEW

In accordance with 10 V.S.A. §556a(d), as amended, and §5-1010 of the *Regulations* the Agency may establish and include within any operating permit issued under this section emission control requirements based on Reasonably Available Control Technology ("RACT"). As of the date of issuance of this Permit, the Agency has not promulgated any RACT requirement that is applicable to this Facility.

(D) COMPLIANCE CERTIFICATION

Condition (35) of this Permit requires the Permittee to certify compliance as part of its annual registration with the Agency pursuant to the requirements of Subchapter VII of the *Regulations*. Additionally, Condition (34) requires the submittal of biannual reports and summaries of periodic monitoring.

Based upon the Agency's review of the Permittee's application and the above findings of fact, the Agency concludes that the operation of 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 V.S.A., §556 and §556a, as amended, the Agency hereby issues a Permit approving the operation of the Facility, as described in the above findings of fact, subject to the following:

PERMIT CONDITIONS

Construction and Equipment Specifications

- (1) The Permittee shall operate the Facility in accordance with the plans and specifications submitted to the Agency on November 1, 1995 and February 26, 1997, and in accordance with the conditions set forth herein. [§§ 5-1015(a)(1) and 5-1015(b) of the *Regulations*]

Operating Limits

- (2) The sulfur content of any fuel oil combusted in any fuel burning equipment at the Facility shall not exceed 2.0% by weight. [10 V.S.A. §556a(d)]
- (3) The four (4) Babcock and Wilcox residual oil-fired boilers combined shall consume no more than 495,900 gallons of residual oil, based on any rolling twelve (12) calendar month basis. [Administrative Order, January 9, 1996]
- (4) The Permittee shall not perform any open burning at the facility unless prior approval is obtained from the Agency. [§5-202 of the *Regulations*]
- (5) The Permittee shall properly operate and maintain its fuel burning equipment in order to minimize the generation of air contaminants. Proper operation of the Zurn wood-fired boiler shall include the following:
- (a) The use of good operating practices when handling, mixing, and regulating the wood fuel fed into the furnace section of the wood-fired boiler. The Permittee shall utilize only wood fuel uncontaminated by glues, preservatives, oils or similar foreign substances. Furthermore, the moisture content of the wood fuel shall not exceed sixty (60) percent by weight, nor shall the size of the wood being fired in the boiler exceed two (2) inches by five (5) inches. [Administrative Order, January 9, 1996]
- (b) Optimization of the overfire and underfire air system to minimize the generation of the air contaminants carbon monoxide (CO), and nitrogen oxides (NO_x). The Permittee submitted reports to the Agency on November 15, 1995 and March 7, 1996 determining that the proper operating parameters for the Zurn wood-fired boiler at steam loads between 60,000 lb/hr and 90,000 lb/hr are:

Oxygen:	6.5 - 8.0 %
Overfire/Underfire Air Ratio:	40/60 to 70/30

The Permittee shall operate the Zurn wood-fired boiler within these limits to ensure continuous compliance with the requirement to minimize the generation of CO and NO_x. [Administrative Order, January 9, 1996]

- (6) The Permittee shall operate and maintain a Stage I vapor recovery system, in

accordance with §5-253.5 of the *Regulations*, on the Facility's gasoline dispensing facilities which receive deliveries from gasoline account trucks. The filling of all gasoline storage tanks shall be by submerged fill only.

The Permittee shall inspect the Stage I vapor recovery system for visible leaks, and repair and replace any worn or ineffective component or element immediately to ensure the vapor-tight integrity and efficiency of the Stage I vapor recovery system. [§5-253.5 of the *Regulations*]

- (7) The Permittee shall operate the cold, solvent metal cleaning units (parts cleaners) in accordance with the following requirements and shall only use a solvent with a vapor pressure equal to less than 0.3 pounds per square inch measured at 100°F. Prior to the Permittee using any solvent with a maximum true vapor pressure greater than 0.3 psi or using a solvent that is heated, the Permittee shall notify the Agency and comply with any additional and applicable requirements of §5-253.14 of the *Regulations*.
- (a) Provide a permanent, legible, conspicuous label, summarizing the operating requirements;
 - (b) Store waste solvent in covered containers;
 - (c) Close the cover whenever parts are not being handled in the cleaner;
 - (d) Drain the cleaned parts until dripping ceases;
 - (e) Supply a solvent spray, if used, that ensures a solid fluid stream at a pressure that does not exceed 10 pounds per square inch gauge;
 - (f) Degrease only materials that are neither porous nor absorbent; and
 - (g) Cease operation of the unit upon the detection of any visible solvent leak until such solvent leak is repaired. [§5-253.14 of the *Regulations*]

Emission Limitations

- (8) The Permittee shall not emit any visible air contaminants from the four (4) Babcock and Wilcox boilers for more than a period or periods aggregating six (6) minutes in any hour having a shade, density, or appearance greater than 40% opacity. At no time shall visible air contaminants have a shade, density, or appearance greater than 60% opacity. These limits shall also apply during periods when any of the Babcock & Wilcox boilers are operating at the same time as the Zurn wood fired boiler.

Continuing compliance with the above visible air contaminant emission standards for the Babcock and Wilcox boilers shall be determined by means of continuous emission monitoring, as required in Condition (22) of this Permit. At the Secretary's discretion, compliance may be determined by observations by a trained observer in accordance with proposed Federal Reference Method F-1 (51 Federal Register, page 31076, August 29, 1986). [10 V.S.A. §556a(d) and §§5-211(1) & 5-402 of the *Regulations*]

- (9) The Permittee shall not emit any visible air contaminants from its starch silo and wood

chip cyclones for more than a period or periods aggregating six (6) minutes in any hour having a shade, density, or appearance greater than 20% opacity. At no time shall visible air contaminants have a shade, density, or appearance greater than 60% opacity.

Any emissions testing conducted to demonstrate compliance with these opacity limits shall use Method F-1 (proposed) published in the *Federal Register* on August 29, 1986 or an alternative method which has been published in Title 40 *CFR*, provided the alternative federally approved alternate method has been approved in writing by the Agency prior to the testing. [§5-211(2) of the *Regulations*]

- (10) The Permittee shall not allow the emission of any visible air contaminant from the Zurn wood fired-boiler, for more than a period or periods aggregating six (6) minutes in any hour, which has a shade, or density, greater than twenty (20)% opacity. At no time, except as specified in Conditions (10)(a) and (10)(b) below, shall such emissions have a shade, density, or appearance greater than sixty (60)% opacity. [§5-211(2) of the *Regulations*]
- (a) During normal start-up operations, emissions of visible air contaminants in excess of the limit specified above are allowed for a period not to exceed one (1) hour. [§5-211(3) of the *Regulations*]
- (b) During normal soot blowing operations, emissions of visible air contaminants in excess of the limit specified above are allowed for a period not to exceed thirty minutes during any twenty-four (24) hour period. [§5-211(3) of the *Regulations*]

Notwithstanding the above, at no time during normal start up or soot blowing operations, shall visible air contaminants from the Zurn wood-fired boiler have a shade, density or appearance greater than 80% percent opacity. [§5-211(3) of the *Regulations*]

Continuing compliance with the above visible air contaminant emission standards for the Zurn wood-fired boiler shall be determined by means of continuous emission monitoring, as required in Condition (22) of this Permit. At the Secretary's discretion, compliance may be determined by observations by a trained observer in accordance with proposed Federal Reference Method F-1 (51 *Federal Register*, page 31076, August 29, 1986). [10 V.S.A. §556a(d) and §5-402 of the *Regulations*].

- (11) Emissions of particulate matter from the wood handling cyclones and the starch silo shall not exceed 0.06 grains per cubic foot of undiluted exhaust gas at standard conditions on a dry basis.

Any emissions testing conducted to demonstrate compliance with these limits shall use Method 5 of Appendix A, Title 40 *CFR*, Part 60, or an alternative method which has been published in Title 40 *CFR*, provided the alternative method has been approved in writing by the Agency prior to the testing. [§5-231(1)(b) of the *Regulations*]

- (12) Emissions of particulate matter from each of the four Babcock and Wilcox boilers shall not exceed 0.25 pounds per hour per Million British Thermal Units ("MMBTU") heat input or 11 pounds per hour.

Any emissions testing conducted to demonstrate compliance with these limits shall use

the high volume sampling method, Method 5 of Appendix A, Title 40 *CFR*, Part 60, or an alternative method which has been published in Title 40 *CFR*, provided the alternative method has been approved in writing by the Agency prior to the testing. [§5-231(3)(a)(ii) of the *Regulations*]

- (13) Emissions of particulate matter from the Zurn wood-fired boiler shall not exceed 0.20 grains per dry standard cubic foot (“dscf”) of undiluted exhaust gas corrected to 12% CO₂.

Any emissions testing conducted to demonstrate compliance with this limit, shall use Method 5 of Appendix A, Title 40 *CFR*, Part 60, or an alternative method which has been published in Title 40 *CFR*, provided the alternative method has been approved in writing by the Agency prior to the testing. [§5-231(3)(b)(ii) of the *Regulations*]

- (14) Total emissions of volatile organic compounds (“VOCs”) from the paper machine at the Facility shall not exceed 49 tons during any rolling twelve (12) consecutive calendar month period. [§5-1015(a)(1) of the *Regulations*]

- (15) Emissions of nitrogen oxides (NO_x) in the exhaust of the Zurn wood-fired boiler shall not exceed 0.3 lbs/MMBTU and a mass discharge rate of 54 lbs/hr. These limits shall be based on a rolling twenty-four hour (24 - hour) average. Continuing compliance with these limits shall be determined by the continuous emission monitoring system required in Condition (22) of this Permit. This emission limit shall apply at all times except start-up and shutdown. Emissions during periods of start-up and shutdown shall comply with Condition (24) of this Permit. [Administrative Order, January 9, 1996]

- (16) Emissions of carbon monoxide (CO) in the exhaust of the Zurn wood-fired boiler shall not exceed 3.0 lbs/MMBTU and a mass discharge rate of 540 lbs/hr. These limits shall be based on a rolling 24 - hour average. Continuing compliance with these limits shall be determined by the continuous emission monitoring system required by Condition (22) of this Permit. This emission limit shall apply at all times except start-up and shutdown. Emissions during periods of start-up and shutdown shall comply with Condition (24) of this Permit. [Administrative Order, January 9, 1996]

- (17) Emissions of federal hazardous air pollutants (“HAPs”) shall not equal or exceed 10 tons per year of any one HAP or 25 tons per year of all HAPs combined at the Facility. [10 V.S.A. §556a(d)]

- (18) The Permittee shall take reasonable precautions at all times to control and minimize emissions of fugitive particulate matter and VOCs from the operations at the Facility. This shall include but not be limited to the following: [§5-231(4) of the *Regulations*]

- (a) Taking precautions to prevent fugitive particulate matter (i.e., wood dust) emissions during the handling of fuel for the Zurn wood-fired boiler.
- (b) The use of wet suppression, calcium chloride applications or other dust control measures as necessary to minimize fugitive dust emissions from all unpaved roads and traffic areas at the Facility.
- (c) Solvent containers containing VOC materials shall be covered when not in use.

Nuisance and Odor

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

Compliance Testing

- (21) The Permittee shall perform periodic emission testing of the exhaust gases from its Zurn wood fired boiler to determine compliance with Condition (13) of this Permit. While performing said emission testing, the Permittee shall use the test method listed below. 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." The Permittee shall submit a written report to the Agency summarizing the results of said testing within 60 days after the date of testing. The initial emission testing shall occur within 180 days after the date of issuance of Permit #OP-04-020. Thereafter, said emission testing shall occur once every three calendar years within 30 days before or after the anniversary date of the initial emission testing.

The Permittee shall use Method 5 of Appendix A, Title 40 *CFR*, Part 60, or an alternative method which has been published in Title 40 *CFR*, provided the alternative method has been approved in writing by the Agency prior to the testing [§§ 5-402(1) and 5-404(1) of the *Regulations*]

Continuous Emission Monitoring

- (22) The Permittee shall install a Continuous Emission Monitoring System ("CEMS") to measure and permanently record nitrogen oxides, carbon monoxide, oxygen concentrations and stack gas volumetric flow rate from the Zurn wood-fired boiler exhaust and install a Continuous Opacity Monitor System ("COMS") to measure and permanently record the visible emissions (opacity) from the heating plant exhaust. The Permittee shall operate and maintain such system in good working order and as specified below:
- (a) Within 180 days of initial permit issuance, the COMS must be capable of operation in compliance with this condition at an installation location that is downstream from the exhaust of the Zurn wood-fired boiler and four (4) oil boilers and is representative of the total emissions from all heating plant boilers.
- (b) The CEMS and COMS must be operated continuously and recording valid data during all periods of boiler operation including those periods of boiler startup, shutdown and malfunction; except for periods of CEMS and/or COMS Quality Control/Quality Assurance ("QA") identified in the approved QA Plan, CEMS

and/or COMS routine maintenance, or CEMS and/or COMS uncontrolled malfunction. Nevertheless, the Permittee must obtain valid CEMS and COMS data for all parameters for a minimum of 90% of the operating hours, based on the calendar quarter.

- (c) The CEMS and COMS shall be installed, calibrated, maintained and operated according to the Manufacturer's recommendations and in such a manner as to meet the requirements of 40 *CFR*, Part 60, Subpart A, 60.13, Appendix B, Performance Specifications 1, 2, 3, 4 and 6, 40 *CFR*, Part 60, Appendix F, Quality Assurance Procedures, and the "Continuous Emission Monitoring Requirements" of the Vermont Air Pollution Control Division, Technical Services Section ("TSS").
- (d) The Permittee shall develop, implement and maintain a Quality Assurance Plan ("QA Plan") for the CEMS and COMS. The Permittee shall submit a revised QA Plan to the TSS within 180 days of initial Permit issuance. Said plan shall satisfactorily document acceptable instrumentation, monitoring procedures, calibration procedures, QA/QC procedures, data acquisition and handling and reporting procedures as required to demonstrate compliance with this Permit. The QA Plan shall also include any emission testing procedures required to determine CEMS relative accuracy. The Permittee shall review the QA Plan at least once each year and shall revise and update the QA Plan as necessary, based on the results of this review, or at the request of the Secretary of the Agency of Natural Resources or at any other appropriate time to accurately document CEMS and COMS operations. The Permittee shall notify the TSS in writing of the results of the annual QA Plan review. All QA Plan modifications are subject to TSS review and shall not be implemented until the Permittee has received written approval from the TSS.
- (e) The Permittee shall submit a summary report for each calendar quarter, within thirty (30) days after the close of the quarter, which meets the applicable TSS CEM Requirements and is in a format acceptable to the TSS. The report shall include at a minimum all opacity, nitrogen oxides, and carbon monoxide emissions in excess of the emissions standards specified in Conditions (8),(10),(15),(16) and (24) of this Permit, a frequency distribution that summarizes all the data collected, a summary of valid data capture and periods of CEMS downtime and invalid data and calibration and audit results.
- (f) CEMS data for nitrogen oxides and carbon monoxide shall be reported in units of lbs/MMBTU and lbs/hour both in terms of 24-hour rolling averages, calculated on an hourly basis. Reported, valid 24-hour rolling averages must contain valid CEMS data representing at least eighteen (18) hours out of the preceding 24-hour period. In addition, the Permittee shall report the quarterly maximum and average 1 - hour and 24 - hour average emissions of NO_x and CO in units of lbs/MMBtu and lbs/hr.
- (g) The Permittee shall maintain a file of all information reported in the quarterly summaries and all other data collected by the monitoring systems for at least five (5) years from the date of collection of such data or submission of such

summaries. All data records for the monitoring systems shall be marked to show the times of both start-up and shutdown of the Zurn wood-fired boiler.

- (h) If, on the basis of the continuous emission monitoring required by this condition, it is determined that the visible, nitrogen oxides or carbon monoxide, emissions exceed the 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.

[10 V.S.A. §556a(d) and Administrative Order, January 9, 1996]

Start-Up and Shutdown - Zurn Wood-Fired Boiler

- (23) For the purposes of this Permit, the following definitions shall apply:
- (a) “start-up” periods are those periods of time from the initiation of wood firing in the Zurn boiler until the unit reaches steady-state operations (85-100% load conditions). This period shall not exceed eight (8) hours for a cold start-up, nor four (4) hours for a hot start-up. A cold start-up shall be defined as a start-up when the boiler has been down for more than 24 - hours.
- (b) “shutdown” period shall not exceed four (4) hours from the moment the wood supply to the Zurn boiler is eliminated. [Administrative Order, January 9, 1996]
- (24) The Permittee shall operate the wood-fired boiler and associated combustion air control system in a manner consistent with best practicable air pollution control practices to minimize emissions during start-up and shutdown below the limits summarized below in Table 5, Start-Up and Shutdown Limits:

Table 5: Start-Up and Shutdown Limits

Parameter	Limit
NO _x	54 lbs/hr (1- hour average)
CO	1100 lbs/hr (1 - hour average)

Emissions in excess of the limits identified in Table 5 during start-up or shutdown shall be considered a violation of this Permit. The number of hours that the boiler operates in a start-up or shutdown mode shall not exceed fifteen (15) percent of the total annual operating hours of the Zurn wood-fired boiler. [Administrative Order, January 9, 1996]

Malfunction Procedures

- (25) The Permittee shall implement and maintain the malfunction abatement plan submitted to the Agency on May 16, 1995, for those systems/operations that affect regulated emissions from the Zurn wood-fired boiler. The plan shall be implemented whenever the Zurn wood-fired boiler suffers a malfunction or other breakdown occurs.

The malfunction abatement plan shall contain at a minimum the following:

- (a) a complete preventive maintenance program including:
- (i) the identification of individuals or positions responsible for inspecting, maintaining and repairing the wood-fired boiler system and ancillary equipment;
 - (ii) a description of the components that will be inspected and maintained;
 - (iii) the frequency of inspection, maintenance services and repairs; and
 - (iv) an identification and quantities of replacement parts for the wood-fired boiler that shall be maintained in inventory at the Facility for quick replacement;
- (b) an identification of the operating variables that may be monitored in order to detect a malfunction or failure; the normal operating range of these variables; a description of the method of monitoring or surveillance procedures; and a description of the methods or procedures that will be used to inform operating personnel of any malfunctions, including alarm systems, lights or other indicators; and
- (c) a description of the corrective procedures that will be taken in the event of a malfunction or failure in order to achieve compliance with the applicable limits as expeditiously as practicable but no longer than the next boiler or process outage that would provide for an orderly repair or correction of the malfunction or fifteen (15) days, whichever is the shorter time interval. If it is anticipated that the malfunction would continue for more than fifteen (15) days, a case by case repair schedule will be established by the Secretary in conjunction with the Permittee. [Administrative Order, January 9, 1996]
- (26) Any amendments to the malfunction abatement plan shall be reviewed and approved by the Secretary prior to its use. If the amendments do not adequately carry out the objectives of Condition (25) above, the Secretary shall disapprove the amendments, and shall state his/her reasons for this disapproval. The Permittee shall submit to the Secretary for his/her approval amendments reflecting changes in any element of the plan required by Condition (25) of this permit or amendments when requested by the Secretary. The malfunction abatement plan amendments shall be implemented within sixty (60) days of receipt of written notice of approval by the Secretary. [Administrative Order, January 9, 1996]

- (27) If, for a period of four (4) hours or more, the wood-fired boiler discharges excess emissions that are caused by a malfunction or breakdown of the wood-fired boiler system or its ancillary equipment; or other abnormal conditions, the Permittee shall:
- (a) verbally notify the Agency of any such occurrence within 72 hours of becoming aware of the occurrence as described below:
 - (i) name and location of the facility,
 - (ii) the nature and cause of the excess emissions,
 - (iii) the time when the excess emissions were first observed,
 - (iv) the expected duration, and
 - (v) an estimated rate of emissions;
 - (b) notify the Secretary immediately when the corrective measures have been accomplished;
 - (c) submit to the Secretary within 15 days after the notification required in Condition (27)(a) above a written report which includes:
 - (i) name and location of the facility,
 - (ii) identification or description of the components, processes and control devices involved in the excess emissions,
 - (iii) the cause and nature of the event,
 - (iv) date, time and duration of the violation or the expected duration of the excess emission if the cause of the excess emissions has not been fixed,
 - (v) estimated quantity of pollutant emitted,
 - (vi) steps taken to control the excess emissions and to prevent reoccurrences and, if the cause of the excess emission has not been fixed, steps planned to be taken, and
 - (vii) any other pertinent information requested by the Secretary.

[Administrative Order, January 9, 1996]

Recordkeeping and Reporting

- (28) For every shipment of fuel oil received at the Facility for use in the Babcock and Wilcox boilers, the Permittee shall obtain from the fuel supplier a certification or invoice stating the name of the fuel oil supplier, date of delivery, fuel type, quantity of fuel oil delivered, and sulfur content of the fuel by weight percent. [§5-405(1) of the *Regulations*]
- (29) The Permittee shall maintain records of all fuel oil consumed in the four (4) Babcock and Wilcox boilers in order to demonstrate compliance with Condition (3) of this Permit. [Administrative Order, January 9, 1996].
- (30) The Permittee shall maintain a logbook of weekly observations of the visible emissions from the starch silo and wood chip cyclones at the Facility. The logbook shall contain the name of the individual making the observation, the results of the observation in terms of opacity observed, and the corrective action taken to reduce the opacity, if any. [§5-1015(a)(3) of the *Regulations*]

- (31) The Permittee shall maintain records of the quantity of gasoline delivered to the site, in gallons, each month. [§5-253.5 of the *Regulations*]
- (32) 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) of the *Regulations*]
- (33) During each calendar month, the Permittee shall collect and maintain records of the Facility's total consumption of each dye and process chemical that contains VOCs or Hazardous Air Contaminants. [§5-405(1) of the *Regulations*]
- (34) The Permittee shall submit to the Agency every six months from the date of issuance of this Permit a report containing the following information: [§5-405(1) of the *Regulations*]
- (a) a summary of the gallons of gasoline delivered to the facility required to be recorded by Condition (31) of this Permit;
 - (b) a summary of the gallons of fuel oil consumed by the Babcock and Wilcox boilers required to be recorded by Condition (29) of this Permit; and
 - (c) VOC emission records required to be maintained by Condition (33) of this Permit;
- (35) The Permittee shall submit an annual certification of compliance, concurrent with the annual registration data submitted to the Agency as specified by Condition (38) of this Permit, which identifies the compliance status during the past calendar year of the Facility with respect to all terms and conditions of this Permit, including but not limited to the following:
- (a) an identification of each term or condition of this Permit that is the basis of the certification;
 - (b) the compliance status of the Facility with respect to each applicable requirement;
 - (c) the methods used for determining the compliance status of the Facility over the reporting period; and
 - (d) whether such methods provide continuous or intermittent data.

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

[40 CFR Part 70 Section 70.6(c)(5)(iv) and Section 5-1015(a)(8) of the *Regulations*]

- (36) 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 deviation and corrective action or preventative maintenance taken to correct the deviation. [§5-402(1) of the *Regulations*]
- (37) 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. Such changes shall include, but shall not be limited to, repair and/or reconstruction of the Zurn boiler, the use of new process chemicals or dyes, and the installation of new fuel burning equipment. 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. [§5-501 of the *Regulations*]
- (38) The Permittee shall calculate the 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. 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 and criminal penalties. The registration process shall follow the procedures set forth in Subchapter VIII of the *Regulations*. The Permittee shall submit a compliance certification statement concurrently with its annual registration forms in accordance with Condition (35) of this Permit. [10 V.S.A. 555(c); §5-1015 of the *Regulations*]
- (39) All records, reports, and notifications that are required to be submitted to the Agency by this Permit shall be submitted to [§5-402(1) of the *Regulations*]:

Field Services Section
Air Pollution Control Division
103 South Main Street, Bldg 3 South
Waterbury, Vermont 05671-0402

- (40) All records of monitoring data and support information shall be retained for a minimum of five (5) years from the date of sampling, measurement, or report. All data records for the monitoring systems shall be marked to show the times of both start-up and shutdown of the Zurn wood-fired boiler [§5-405(1), §5-1015(a)(5), and §5-1015(b) of the *Regulations* and Administrative Order, January 9, 1996]

- (41) The Permittee shall take the following actions:
- 1) Develop a draft version of the compliance certification form and permit notices (see section 3b below) as required by Condition (35) of this permit. This form shall be submitted to the Agency at least 15 days prior to the meeting required in (2) below.
 - 2) Meet with the APCD (in person or by phone) within 60 days from issuance of the initial Permit to Operate. The goal of the meeting will be to review the draft compliance certification and the permit notices. The meeting shall be attended by the appropriate facility staff responsible for day to day compliance with the permit.
 - 3) Post approved notices at the facility, at locations agreed upon at the meeting. The notices shall:
 - a) state that the facility is subject to an Air Pollution Control Permit,
 - b) describe the physical locations of the permit,
 - c) identify the staff person at the facility (by name or position) to whom problems or questions regarding permit compliance shall be directed.

[§§ 5-402 and 5-1015 of the *Regulations*]

Permit Shield

- (42) In accordance with §5-1015(a) of the *Regulations*, the Facility is granted a “permit shield” and is not subject to the regulations and standards listed in Finding of Fact (J) (d) of this Permit. The Agency’s “permit shield” determination is based upon the information submitted by the Permittee in its application. The “permit shield” shall be binding only with respect to activities disclosed in the Permittee’s application. [§5-1015(a)(11) of the *Regulations*]

Standard Conditions

- (43) These Permit conditions may be modified, suspended, terminated, 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. §556a]
- (44) Cause for reopening, modification, termination and revocation of this Permit under this subsection 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 the 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*]
- (45) The Permittee shall furnish to the Agency, within a reasonable time, any information that the Agency may request in writing to determine whether or cause exists for modifying, revoking, reissuing, or terminating 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. [40 CFR Part 70 §70.6(a)(6)(v)]
- (46) 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. §556a(d)]
- (47) 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. §556a(d)]
- (48) 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 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. [§5-1008(f) of the *Regulations*]
- (49) 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. §556a(d)]
- (50) 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. §556a(d)]

- (51) Any permit noncompliance constitutes 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. [Sections 5-1008(a) and 5-1008(e) of the *Regulations*]
- (52) 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. §556a(d)]
- (53) 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. [§§ 5-1005(c) and 5-1012(a) of the *Regulations*]
- (54) Conditions (3), (5), (15), (16), (28) and (22) through (26) are derived from the Administrative Order issued January 17, 1996 as required by §5-251, Control of Nitrogen Oxides, of the *Vermont Air Pollution Control Regulations*. With the exception of the cited administrative order conditions, the operating permit shall expire on December 1, 2005. [§§5-1011 and 5-1012(a) of the *Regulations*]

The Agency's issuance of this Air Pollution Control Permit to Operate 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. It is the sole responsibility of the Permittee to operate the source according to the conditions herein and with all applicable state and federal standards and regulations.

Dated this _____ day of _____, 2004, 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

EP
 A2: Dalton Hydro, LLC/Dirigo Paper Company - Gilman