

#AOP-19-010
DEC#EJ96-0028

Operating Permit Expiration Date: May 13, 2027

State of Vermont
Agency of Natural Resources
Department of Environmental Conservation



Air Quality & Climate Division
Montpelier, Vermont

TITLE V
AIR POLLUTION CONTROL PERMIT
TO CONSTRUCT AND OPERATE

Date Permit Issued: May 13, 2022

Owner/Operator: WestRock Company
1000 Abernathy Road NE
Atlanta, GA 30328

Source: WestRock Converting LLC
Paperboard Manufacturing Facility
369 Mill Street
Sheldon Springs, VT 05485

FINDINGS OF FACT

(A) FACILITY DESCRIPTION

WestRock Converting LLC (also referred to herein as "Permittee") owns and operates a paperboard manufacturing facility located off Mill Street in the town of Sheldon, Vermont (also referred to herein as "Facility"). The Facility consists of four natural gas/No.6 fuel oil boilers and two paperboard coating lines each with two coating and two drying units. This is the renewal of the existing Title V Operating Permit.

Upon issuance of this Permit, the approved regulated operations at the Facility include the following air pollution related operations, equipment, and emission control devices:

Equipment Specifications				
Equipment/Make/Model	Capacity/Size	Fuel Type	Stack Height ⁴	Date of Manufacture (Installation)
Wickes Boiler #1	89 MMBtu/hr ¹ 80 MMBtu/hr	Natural Gas No. 6 fuel oil	193'	1950
Cleaver-Brooks Boiler #2	28.6 MMBtu/hr 28.6 MMBtu/hr	Natural Gas No. 6 fuel oil	167' (100' for FGHRS ²)	2008
B&W Boiler #3	33 MMBtu/hr 33 MMBtu/hr	Natural Gas No. 6 fuel oil		1950
B&W Boiler #4	31 MMBtu/hr 31 MMBtu/hr	Natural Gas No. 6 fuel oil		1950
Paperboard Coating Line #1				
Line Drier #1	5 MMBtu/hr	Natural Gas	40'	1969
Line Drier #1b	2.98 MMBtu/hr	Natural Gas		2001
Cylinder Exhaust #1			29'	
Paperboard Coating Line #2				
Line Drier #2	Steam supplied from Boilers		39'	1969
Line Drier #2b ³	3.264 MMBtu/hr	Natural Gas		1998
	1.67 MMBtu/hr	Natural Gas		2001
Cylinder Exhaust #2			39'	
Emergency Diesel Generator	16 MMBtu/hr	No. 2 fuel oil	32'	1950
Emergency Detroit Diesel Fire Pump	115 HP	No. 2 fuel oil	60'	1970

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

² FGHRS - flue gas heat recovery system utilized only when firing natural gas.

³ Both of the burners in line drier #2b are gas IR, and part of the coating drying section of paper machine #2.

⁴ Stack heights are referenced to the facility base elevation of 275' above MSL.

(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 (6)(a) [Fossil fuel-burning equipment] 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 Quality & Climate Division (hereinafter "Agency") as one stationary air contaminant source for purposes of review under the *Regulations*.

(C) PRIOR AGENCY ACTIONS/APPROVALS

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

Prior Agency Permit Approvals and Actions	
Date of Action	Description of Agency Approval/Action
December 2, 1996	#AP-96-019 – Original Agency "Permit to Construct" approval to operate four natural gas/No. 6 fuel oil boilers. The existing boilers were used to supply heat to coating oven. The Facility removed the natural gas burners which contributed twenty million cubic feet of natural gas from paper coating lines 1 and 2. This was equivalent to 140,000 gallons of residual fuel oil.
June 13, 1997	#AP-96-019a – Administrative amendment to correct the PM limits as per 5-231 of the <i>Regulations</i> .
December 30, 1998	#AP-96-019b – Administrative amendment to install a new coating stage with infrared drying on existing paper machine #2.
July 16, 1999	#AOP-95-148 - Initial Agency "Permit to Operate" approval for the Facility to operate four boilers, one emergency generator, and paper coating lines 1 and 2.
March 8, 2001	#AOP-95-148a – Administrative amendment to modify two paper machines, including additional coating stage and drying.
November 17, 2005	#AOP-05-018 – In-house operating permit renewal application terminated upon filing of new construction and operating permit application AOP-05-018a below.
January 11, 2006	#AOP-05-018a –The fuel cap was increased from 1,020,000 gallons per year to the maximum of 1,024,800 gallons per year. Because the increase did not exceed the 161 tons per year SO ₂ emission limit, the modification was considered minor.
February 12, 2008	#AOP-05-018b - Approval to replace 1950 27 MMBtu/hr Wicks boiler #2 with a new 27.2 MMBtu/hr Cleaver-Brooks boiler, to be fired with natural gas and 0.5% sulfur No.6 fuel oil. Installed boiler rated at 28.6 MMBtu/hr per notification of initial start-up dated 9/11/2008.

Prior Agency Permit Approvals and Actions	
Date of Action	Description of Agency Approval/Action
November 12, 2014	#AOP-10-038 Renewal of the Permit to Operate as well as a Permit to Construct approving the installation of a flue gas heat recovery system on the exhaust from Boilers 2, 3, & 4 when they are firing natural gas.

(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 otherwise subject to Title 40 *Code of Federal Regulations* ("40 CFR") Part 70.

The Facility currently operates under a Permit to Operate issued on November 12, 2014. The allowable emissions from the Facility are estimated to be greater than the ten (10) tpy combined threshold for applicability with Subchapter X of the *Regulations*, and emissions of sulfur dioxide (SO₂), are estimated to be in excess of the one-hundred (100) tpy, the threshold for applicability to Title V of the federal Clean Air Act. Therefore, pursuant to §§5-1002, 5-1003, and 5-1005 of the *Regulations* the Facility is classified as a "Title V Subject Source". In accordance with §5-1009 of the *Regulations*, the agency is issuing the Permit to Operate herein as a renewal of the previous Permit to Operate for the Facility and the Permit herein supersedes all prior Permits for the Facility.

In accordance with 10 VSA §556(e) the Agency has combined the previous Permit to Construct modification and the Permit to Operate renewal 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) ¹					
PM/PM ₁₀ /PM _{2.5}	CO	NO _x	SO ₂	VOCs	HAPs
16.1 / 11.6 / 7.8	71	<100	162.3	<50	<8/20 ²

¹ PM/PM₁₀/PM_{2.5} – total particulate matter, total particulate matter of 10 micrometers in size or smaller and total particulate matter of 2.5 micrometers in size or smaller, respectively. Unless otherwise specified, all PM is assumed to be PM_{2.5}; SO₂ - sulfur dioxide; NO_x - oxides of nitrogen measured as NO₂ equivalent; CO - carbon monoxide; VOCs - volatile organic compounds; HAPs - hazardous air pollutants as defined in §112 of the federal Clean Air Act.

² Potential emissions of each individual HAP are less than 8 tons per year and total combined HAP emissions are less than 20 tons per year.

(E) REVIEW OF CRITERIA POLLUTANT EMISSIONS FOR THE PERMIT TO CONSTRUCT

(a) New Source Review Designation

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

(b) Most Stringent Emission Rate

The Permittee has not proposed any modifications to the Facility in conjunction with the review for this Permit to Operate and therefore is not subject to review under the MSER requirements in §5-502 of the *Regulations* at this time. In addition, there have been no prior MSER evaluations conducted for any of the previous modifications to the Facility.

(c) Ambient Air Quality Impact Evaluation

An ambient air quality impact evaluation for criteria pollutants is performed to demonstrate whether or not a proposed project will cause or contribute to violations of the national ambient air quality standards and/or significantly deteriorate existing air quality for the regulated criteria pollutants.

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

Prior Air Quality Impact Evaluations: The Facility was previously required to conduct an AQIE for modifications to the Facility in August of 1993 and 1995. The modification to the Facility included the operative requirement that no more than two (2) of its four (4) boilers operate on residual fuel oil concurrently due to potential short term SO₂ impacts. The Facility may operate three (3) of its four (4) boilers on fuel oil concurrently if the Facility exclusively burns fuel oil having a sulfur content of 1% by weight or less in the three (3) boilers or if the inoperative boiler is the larger Wickes boiler #1. The Facility was found to comply with all applicable ambient air quality standards and prevention of significant deterioration increments.

For the installation of the flue gas heat recovery system, approved on November 12, 2014, the Permittee was required to conduct an AQIE to evaluate potential 1-hour NO₂ impacts due to the flue gas heat recovery system's cooler exhaust and lower stack height.

Ambient Air Quality Impact Evaluations		
Permit #	Pollutant(s)	Summary of Results
August 1993	SO ₂	An AQIE was conducted for the pollutant SO ₂ , modeling from the Wickes Boiler #1 resulted in an increase in the stack height to 193 feet, and the operative limit that no more than two boilers will be operated on No. 6 fuel oil simultaneously. The modeling was necessary to resolve questions about the potential of air quality violations.
August 1995	SO ₂	An AQIE was conducted for the pollutants SO ₂ , NO _x , PM ₁₀ , and CO. The results concluded that in order for the Facility to meet short term ambient standards, the Facility may not run more than two of its boilers at any given time on No. 6 fuel oil, except three of four boilers may operate simultaneously if 1 percent sulfur by weight, or less, fuel oil is used.
#AOP-10-038	NO ₂	An AQIE was conducted for the pollutant NO ₂ due to the proposed installation of a flue gas heat recovery system on boilers 2, 3, and 4 while burning exclusively natural gas that would lower stack temperatures to 150 degrees F and lower the stack height to 100'. SO ₂ was not modeled since the system will only be used when firing natural gas. The AQIE demonstrated that both the annual and 1-hour NO ₂ NAAQS would be met.

(F) REVIEW OF CRITERIA POLLUTANT EMISSIONS 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:

Applicable Requirements from the Vermont Air Pollution Control Regulations
Section 5-201 – Prohibition of Open Burning
Section 5-211(1) - Prohibition of Visible Air Contaminants, Installations Constructed Prior to April 30, 1970. <i>Applicable units: Coating Dryer #1&#2, Wickes Boiler #1, B&W Boiler #3, #4, Diesel Emergency Generator.</i>
Section 5-211(2) - Prohibition of Visible Air Contaminants, Installations Constructed Subsequent to April 30, 1970. <i>Applicable unit: Cleaver-Brooks Boiler #2 and all other equipment installed after respective date.</i>
Section 5-221(1) - Prohibition of Potentially Polluting Materials in Fuel, Sulfur Limitation

Applicable Requirements from the Vermont Air Pollution Control Regulations
in Fuel.
Section 5-221(2) – Prohibition of Potentially Polluting Materials in Fuel, Waste Oil.
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 5-253.10 - Control of Volatile Organic Compounds from Paper Coating.
Section 5-253.14 - Control of Volatile Organic Compounds from Solvent Metal Cleaning. <i>This regulation applies to the parts cleaners in use at the facility.</i>
Section 5-261(3) – Control of Hazardous Air Contaminants - Hazardous Most Stringent Emission Rate. <i>Applicable to latex coatings on paper making operations.</i>
Section 5-402 – Written Reports When Requested.
Section 5-403 – Circumvention.
Subchapter VIII – Registration of Air Contaminant Sources.
Subchapter X – Operating Permits.

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

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

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

The Facility currently operates under the confines of a Permit to Construct and Operate issued on November 12, 2014 (#AOP-10-038). On September 15, 2015, the Agency transferred the ownership of AOP-10-038 from Rock-Tenn Converting Company to WestRock Converting Company (approval AOP-15-026). On October 5, 2018, the Agency transferred the ownership of AOP-10-038 from Westrock Converting Company to WestRock Converting LLC (approval AOP-18-042). The conditions within that existing permit are considered applicable requirements pursuant to §5-1002 of the *Regulations*. The requirements of that permit which are not being modified herein are incorporated into this new combined Permit to Construct and

Operate (#AOP-19-010).

(iv) Federal Requirements:

Applicable Requirements from Federal Regulations and the Clean Air Act
<p>40 <i>CFR</i> Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial- Institutional Steam Generating Units. Applies to all boilers with a heat input rating of 10 MMBTU/hr or greater manufactured or modified after June 9, 1989. Units larger than 30 MMBTU per hour installed after February 27, 2005 are subject to additional particulate matter requirements.</p> <p><i>Applicable to the Cleaver-Brooks boiler #2 installed in 2008.</i></p> <p><i>The Permittee notified both the Agency and the U.S. EPA in writing of the date construction of the Cleaver Brooks #2 boiler was commenced on July 2, 2008.</i></p> <p><i>The Permittee notified the Agency and the U.S. EPA in writing of the actual date(s) of initial start-up of the Cleaver Brooks #2 boiler on September 10, 2008.</i></p>
<p>40 <i>CFR</i> Part 63, Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers. Applies to new and existing fuel oil and solid fuel fired boilers located at area sources (major sources are subject to Subpart DDDDD). Natural gas or propane fired boilers are not subject. The natural gas and propane exemption allows use of backup fuel during periods of gas curtailment, gas supply emergencies, and for periodic testing not to exceed 48 hours during any calendar year. Oil fired hot water boilers less than 1.6 MMBTU/hr are not subject. The rule requires a tune-up for each boiler once every two years, except boilers with oxygen trim and oil boilers less than 5 MMBTU/hr may conduct tune-ups every five years. Existing facilities with any single boiler greater than 10 MMBTU/hr were required to conduct a site wide energy assessment audit to identify potential heat use efficiencies. New boilers greater than 10 MMBTU/hr are subject to PM emission limits. Boilers that commenced construction on or before June 4, 2010 are considered an existing source.</p> <p><i>All the boilers at the Facility are considered existing boilers subject to this regulation because they are permitted to use No.6 fuel oil beyond just natural gas curtailment and up to 48 hours of elective operation. Because the Permittee is proposing to retain this use of fuel oil in the boilers, they will continue to be subject to Subpart JJJJJ. The Facility filed its initial notification on September 12, 2011 and completed its initial boiler tune-ups and energy assessment audit March 03, 2014. Notification of compliance status for the boiler tune-ups and energy assessment audit with the Compliance Emissions Data Reporting Interface (CEDRI) system has been completed.</i></p>
<p>40 <i>CFR</i> Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. Applies to <u>new</u> engines that commenced construction (installed) on or after June 12, 2006 at area sources of HAPs. Requires such engines to comply with NSPS Subpart IIII or JJJJ, as applicable. Also applies to <u>existing</u> engines that commenced construction (installed) prior to June 12, 2006 at area sources of HAPs. Emergency units are subject to maintenance requirements and must install an elapsed hour meter and report electronically to EPA.</p> <p>Emergency engines are unrestricted for actual emergency operation but restricted to 100 hours per year of testing and maintenance, of which 50 hours may be local demand</p>

Applicable Requirements from Federal Regulations and the Clean Air Act
<p>response (no qualifying programs currently known to exist) and 50 hours may be for non-compensated non-emergency operation. Most utility programs do not qualify as allowed emergency engine operation.</p> <p>4Z ULSD requirements vary, however state regulations mandate ULSD across the board.</p> <p><i>Subpart ZZZZ applies to the emergency fire pump diesel engine at the Facility. This engine is subject to Subpart ZZZZ for maintenance requirements as well as the required hour meter.</i></p> <p><i>The emergency generator at this Facility is currently non-operational. If and when it becomes operational, it will be subject to Subpart ZZZZ due to its classification as an 'industrial' facility and 'emergency' status. Permittee must notify the Agency prior to restoring the generator to operational status.</i></p>
<p>Clean Air Act §112r Prevention of Accidental Release; 40 CFR Part 68 Chemical Accident Prevention Programs. Facilities that have more than the threshold quantity of a regulated substance in a process are subject to these provisions including the requirements to conduct a hazard assessment, establish a prevention program and develop a risk management plan.</p> <p><i>The Permittee has stated that the Facility does not have more than the threshold quantity of a regulated substance. The Permittee also acknowledged their requirement to comply with the general duty clause of the regulation. This information was communicated via email 9/19/2014.</i></p>

(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) CONTROL OF HAZARDOUS AIR CONTAMINANTS

Pursuant to §5-261 of the *Regulations*, any stationary source subject to the rule¹ with current or proposed actual emissions of a hazardous air contaminant (HAC) equal to or greater than the respective Action Level (found in Appendix C of the *Regulations*) shall be subject to the Regulation and shall achieve the Hazardous Most Stringent Emission Rate (HMSEER) for the respective HAC. HMSEER is defined as a rate of emissions which the Secretary, on a case-by-case basis, determines is achievable for a stationary source based on the lowest emission rate achieved in practice by such a category of source and considering economic impact and cost. HMSEER may be achieved through application of pollution control equipment, production processes or techniques, equipment design, work practices, chemical substitution, or innovative pollution control techniques.

Based on the information supplied by the Permittee, the Agency has determined that the Facility will have regulated emissions of seven HACs in excess of their respective Action Level: Acetaldehyde (75-07-0), biphenyl (92-52-4), chloroform (67-66-3), 1,2-dimethoxyethane (110-71-4), formaldehyde (50-00-0), methylene chloride (75-09-2), and naphthalene (91-20-3).

Therefore, the Facility is subject to §5-261 and must achieve HMSEER, as determined by the Secretary, pursuant to §5-261(2) of the *Regulations*.

Due to the large exhaust volume and low concentration of biphenyl (92-52-4), chloroform (67-66-3), 1,2-dimethoxyethane (110-71-4), formaldehyde (50-00-0), methylene chloride (75-09-2), and naphthalene (91-20-3) in the exhaust from the paper machines and the stock preparation system the cost of control would be excessive for the relatively low quantities of HACs. Currently, there are no economically feasible controls available to reduce the emissions of biphenyl (92-52-4), chloroform (67-66-3), 1,2-dimethoxyethane (110-71-4), formaldehyde (50-00-0), methylene chloride (75-09-2), and naphthalene (91-20-3). These emissions from the paper machines and stock preparation are not subject to any federal emission standards and we are not aware of any similar plants in the country that require such emissions to be controlled.

Acetaldehyde (75-07-0) is a residual component of the latex coating applied to the paperboard product. The Agency has determined the HMSEER to be an acetaldehyde content limit of 450 ppm each, as applied, for any latex coating components used in the paperboard manufacturing process. This HMSEER evaluation shall be subject to re-evaluation five (5) years from the date of its determination and shall remain in effect until revised by the Agency.

This and prior HMSEER determinations for this Facility are presented below.

¹ APCR §5-261(1)(c)(ii) provides that solid fuel burning equipment (not including incinerators) installed or constructed prior to January 1, 1993, and all fuel burning equipment which combust virgin liquid or gaseous fuel shall not be subject to the requirements of §5-261.

Hazardous Most Stringent Emission Rate Determinations		
Permit #	Pollutant	Description/Emission limit
Established #AOP-05-18b	acetaldehyde (75-07-0) and vinyl acetate (108-05-4)	No latex product used in paper coatings at the Facility shall contain acetaldehyde and/or vinyl acetate in excess of 350 ppm and 450 ppm, respectively.
Established #AOP-10-038 Terminated #AOP-19-010	vinyl acetate (108-05-4)	HMSE shall be an vinyl acetate content limit of 450 ppm, as applied, for latex coating components used in the paperboard manufacturing process. The review for permit AOP-19-010 indicates the estimated emission rate of vinyl acetate is now below the Action Level, and an HMSE limit is not needed at this time.
Established #AOP-10-038 Reestablished #AOP-19-010	acetaldehyde (75-07-0)	HMSE shall be an acetaldehyde content limit of 450 ppm, as applied, for latex coating components used in the paperboard manufacturing process. The increase in the acetaldehyde ppm limit was approved in permit AOP-10-038 to allow more than one supplier of the coating latex component.
Established #AOP-19-010	NCASI HACs biphenyl (92-52-4), chloroform (67-66-3), 1,2-dimethoxyethane (110-71-4), formaldehyde (50-00-0), methylene chloride (75-09-2), naphthalene (91-20-3).	At this time there are no economically feasible controls for these HAC emissions from paper machines and stock preparation system.

As the Agency has determined that the Facility, following imposition of HMSE as noted above, may continue to have emissions of HACs in excess of their respective Action Level, the Agency has considered whether or not an Air Quality Impact Evaluation should be required pursuant to §5-261(3) of the *Regulations*. The Agency has reviewed several factors relating to this Facility, including, but not limited to those listed in §5-261(3)(a)-(c) of the *Regulations* and the level of emissions and emission reduction measures typical for this category of emission source. Based on this review, the Agency is not requiring the Facility to conduct an air quality impact evaluation pursuant to §5-261(3) 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 or is subject to an acceptable schedule of compliance. Therefore, pursuant to 10 VSA §§556 and 556a, as amended, the Agency hereby issues a Permit approving the Facility, as described in the above Findings of Fact, subject to the following:

PERMIT CONDITIONS

- Construction and Equipment Specifications -

- (1) The Permittee shall construct and operate the Facility in accordance with the plans and specifications submitted to the Agency and in accordance with the conditions set forth herein, including the equipment specifications as listed in Findings of Fact (A) or their equivalent as approved by the Agency. [10 V.S.A. §§556(c) and 556a(d)] [§5-409 and 5-501(1) of the Regulations]
- (2) Stack heights: The Facility shall vent exhaust from its equipment, vertically through stacks of the following heights. Stack heights are referenced to the facility base elevation of 275' above MSL.

Exhaust Source	Stack Height (Feet)
Wickes Boiler #1	193
Cleaver Brooks Boiler #2	167 feet except a 100 foot stack may be used when firing exclusively natural gas and exhausting through the stack heat recovery system (CONDEX).
B&W Boiler #3	
B&W Boiler #4	
Coating Mixer	12
Cylinder Exhaust #1	29
Cylinder Exhaust #2	39
Diesel Generator	32
Fire Pump	60
Line 1, Drier #1	40
Line 1, Drier #1b	
Line 2, Drier #2	39
Line 2, Drier #2b	

¹ The stack for the fire pump is not vertical; it exhaust horizontally through a goose neck stack and is authorized based on limited use.

For all other non-fugitive emission points at the Facility, the Agency recommends that they each be exhausted vertically through a stack(s) which extend a minimum of four (4) feet above the roof where the stack penetrates the roof and that they not be equipped with any device that may obstruct the upward discharge of the exhaust gases such as a fixed rain cap of a type that has not been approved by the Agency. The Agency may require the Permittee to increase the stack height, remove a rain cap, or conduct a dispersion analysis to verify compliance with ambient air quality standards for any stack at the Facility if, in the judgment of the Agency, adequate dispersion cannot be maintained at the current stack

configuration. Adequacy may in part be based on the actual emission rate of air contaminants, the characteristics of the current stack configuration, or inspections of the Facility that indicate poor dispersion or that confirm significant visible emissions or nuisance or odor beyond the property line. [10 V.S.A. §§556(c) and 556a(d)] [§5-406 of the *Regulations*] [Application for #AP-96-019]

- (3) Each boiler shall be equipped with a steam output chart or equivalent recording device. Each steam chart or recording device shall be operational whenever the boilers are operated. The steam output record shall be made available to the Agency upon request. [10 V.S.A. §556(c)] [AP-96-019]

- Operational Limitations -

- (4) **Boilers:** The annual fuel oil consumption in the Cleaver-Brooks Boiler #2 shall not exceed 946,354 gallons of fuel oil based upon any rolling twelve (12) consecutive calendar month period. [10 V.S.A. §§556(c), 556a(d)] [§5-501 of the *Regulations*] [#AOP-05-018b]
- (5) **Boilers:** The No. 6 fuel oil burned in the Facility's boilers shall not exceed a maximum sulfur content of 0.5 percent by weight. [10 V.S.A. §§556(c) and 556a(d)] [§§5-501 and 5-1015(a)(1) of the *Regulations*] [§5-221(1)(a) of the *Regulations*] [40 CFR Part 60 Subpart Dc §§60.42c(h) and 60.48c(f)]
- (6) **Boilers:** In accordance with 40 *CFR* Part 63 Subpart JJJJJJ (National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial and Institutional Boilers at area sources), the Permittee shall comply with the following requirements, as applicable, for coal, oil and wood fired boilers as well as all other applicable requirements of this regulation.
- (a) Biennial tune-ups of the boiler(s) as required by 40 *CFR* §63.11223. All boilers at this facility are subject to this regulation since they were installed prior to the regulatory cut-off date (June 4th, 2010).
- (b) A one-time energy assessment of the boilers as well as any required energy use systems at the Facility as required by 40 *CFR* §63.11201(b) was due no later than March 3rd, 2014. The energy assessment was completed in December, 2013.
- (c) Notification, reporting and recordkeeping requirements as specified in §63.11225. This includes:
- (i) §63.11225(a)(2): Initial Notification:
- a. For boilers installed prior to June 4, 2010 the initial notification must be sent to the Agency and EPA no later than January 20, 2014. Permittee submitted initial notification on September 12th, 2011.
- (ii) §63.11225(a)(4): Notification of Compliance Status:
- a. Notification of the initial tune-up of the boiler must be submitted no later than 120 days after the initial tune-up compliance date of March 21, 2014. Initial tune-ups for all boilers were completed by December 10th, 2013. The first subsequent tune-up is due no later than January 10th, 2016.
- b. Notification of the completion of the energy assessment must be submitted no later than July 19, 2014. Notification via CEDRI was completed in June, 2014.
- (iii) §63.11225(b): Biennial Compliance Certification:

- a. You must conduct a performance tune-up for each affected existing and new boiler according to §63.11223(b)-(f) every 2 years and you must certify every 5 years in your Compliance Certification Report that you complied with the requirements in §63.11223 to conduct a tune-up. You do **not** need to submit the interim-cycle report, but it can be requested by your delegated authority (§63.11225(b)) at any time.

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

- (7) Stationary Emergency Diesel Engines: Stationary emergency diesel engines, including those specified as such in Finding of Fact (A), shall be used only for emergency purposes and up to 100 hours per year for routine testing and maintenance, of which 50 hours may be for non-compensated non-emergency operation. Emergency purposes include periods of time when:

- (a) The usual source of power, heat or lighting is temporarily unavailable due to reasons beyond the reasonable control of the owner/operator;
- (b) A fire or flood makes it necessary to pump water to minimize property damage.

In the event the Permittee must take action to restore the normal power source, the Permittee must take such action in a reasonable period of time. Emergency engines shall not be operated as part of any other ISO or utility peaking or load shedding activities without the approval of the Agency. The definition of emergency use for applicability to federal regulations NSPS Subpart IIII and NESHAP Subpart ZZZZ may be different and the Permittee should consult those regulations directly for applicability to those respective regulations. [10 V.S.A. §§556(c) and 556a(d)] [§§5-401(6)(c) and 5-501 of the *Regulations*]

- (8) Stationary Diesel Engines – fire pump: In accordance with 40 CFR Part 63 Subpart ZZZZ as may be applicable, for CI diesel engines which commenced construction (were installed) prior to June 12, 2006 the Permittee shall comply with the following. Engines that are limited to emergency operation only (emergency engines) are subject to different requirements than engines not restricted to emergency only operation (non-emergency engines).

For emergency engines of all sizes and non-emergency engines \leq 300 HP:

- (a) Change oil and filter every 500 hours of operation or annually (1,000 hours if non-emergency), whichever comes first;
- (b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
- (c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary;
- (d) Install an elapsed hour meter (emergency engines only);
- (e) Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

10 V.S.A. §556a(d)] [§§5-407, 5-501 and 5-1015(a)(1) of the *Regulations*] [40 CFR, Part 63, Subpart ZZZZ, §§63.6603, 63.6640 and Table 2d]

- (9) Stationary Diesel Engines: The Permittee shall not install or operate a stationary reciprocating internal combustion engine, as defined in the *Regulations*, unless the engine complies with §5-271 of the *Regulations* as may be applicable as well as any federal regulations including 40 *CFR* Part 60 Subpart IIII and 40 *CFR* Part 63 Subpart ZZZZ, as may be applicable. All engines, including emergency engines, installed on or after July 1, 2007 must comply with the applicable emission standards (Tier 2) of §5-271 immediately upon installation. Installation of any size engine, even those below 300 bhp, may still require approval from the Agency in the form of an amended permit prior to installation. [10 V.S.A. §§556(c) and 556a(d)] [§§5-271 and 5-501 of the *Regulations*]
- (10) Solvent Metal Cleaning: In accordance with 5-253.14 [Solvent Metal Cleaning] of the *Regulations*, 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 or less than 0.3 pounds per square inch measured at 100°F, which includes but is not limited to the Safety-Kleen 105 hydrocarbon solvent. 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 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 ten (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.
- [10 V.S.A. §§556(c) and 556a(d)] [§5-253.14 of the *Regulations*]
- (11) Open Burning: Open burning is prohibited except as provided for in §5-202 of the *Regulations*. Prior to conducting open burning of any material, other than leaves, brush, or tree cuttings from normal grounds maintenance, the Permittee shall contact the Air Pollution Control Officer and obtain approval for such burning, if required. [10 V.S.A. §§556(c) and 556a(d)] [§5-202 of the *Regulations*]

- Emission Limitations -

- (12) Nitrogen Oxides [Facility Wide]: In order to maintain Facility emissions of nitrogen oxides (NO_x) below the threshold of §5-251(3) of the *Regulations*, the Permittee shall limit emissions of nitrogen oxides from the entire Facility, including all boilers, paperboard machines, and emergency generators as well as all other stationary fuel burning equipment, to less than one-hundred (100) tons per year based on any rolling twelve (12) consecutive calendar month period. For the purposes of this condition, NO_x emissions shall be calculated in accordance with the following:

$$NO_{x\ TPY} = \{ [GPY_{resid\ oil} \times EF_{resid\ oil}] + [GPY_{dist\ oil} \times EF_{dist\ oil}] + [SCF_{NG} \times EF_{NG}] \} \div 2000 \frac{lbs}{ton} < 100\ tpy$$

Where:

GPY = total gallons of the respective fuel oil burned during the last 12 months
 SCF_{NG} = Standard Cubic Feet on Natural Gas burned during the last 12 months

EF_{resid oil} = Emissions Factor for residual oil (boilers) = $55 \frac{lbs}{10^3\ gal}$

EF_{dist oil} = Emissions Factor for distillate oil (diesel engines) = $448 \frac{lbs}{10^3\ gal}$

EF_{NG} = Emissions Factor for Natural Gas (boilers and ovens) = $100 \frac{lbs}{10^6\ SCF}$

[10 V.S.A. §§556(c) and 556a(d)] [§§5-251(3) of the Regulations] [application for #AOP-95-148a]

- (13) **Sulfur Oxides [Facility Wide]:** Emissions of sulfur dioxide (SO₂) from the Facility shall not exceed one-hundred sixty-one (161) tons per year, based on any rolling twelve (12) consecutive calendar month period. For purposes of this condition, SO₂ emissions shall be calculated in accordance with the following:

$$SO_{x\ tpy} = \sum GPY_{fuel\ oil\ burned\ in\ all\ boilers} \times EF \times \%S \div 2000 < 161\ TPY\ SO_2$$

Where:

GPY = Total gallons of fuel oil burned in all boilers collectively during the last 12 months

EF = Emission Factor for residual oil = $0.157 \frac{lbs}{gal}$

%S = Weighted average sulfur content of the fuel expressed as percent by weight. For example if the sulfur content of the fuel is 0.5% sulfur by weight, the value 0.5 would be entered in the formula.

[10 V.S.A. §§556(c) and 556a(d)] [§5-501 of the Regulations] [Application for #AP-96-019]

- (14) **Particulate Matter [Boilers]:** Emissions of particulate matter (PM), including condensable PM, from the four central heating plant boilers shall not exceed the following limits:

PM Emission Limitations		
Unit	Emission Limitations	
	lbs/MMBTU ¹	lbs/hour ²
Wickes Boiler #1	0.18	16.0
Cleaver-Brooks Boiler #2	0.31	8.9
B&W Boiler #3	0.29	9.6
B&W Boiler #4	0.29	9.0

¹ lbs/MMBTU equals pounds of pollutant emitted per million British Thermal Units of heat input.

² lbs/hour equals pounds of pollutant emitted per hour.

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 and 202 or alternative methods which have 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 and 5-404 of the *Regulations*]

- (15) Particulate Matter: Emissions of particulate matter ("PM") from any fossil fuel burning device, except motorized vehicles, with a heat input rating of less than ten (10) million British Thermal Units per hour ("MMBTU/hr") shall not exceed 0.5 pounds per MMBTU.

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 and Part 51, Appendix M, Reference Method 202, or equivalent methods approved in writing by the Agency. 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)(a)(i) and 5-404 of the *Regulations*]

- (16) 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.

Any emission testing conducted to demonstrate compliance with the above emission limits shall be performed in accordance with 40 *CFR* Part 51, Appendix M, Methods 203B and 203C, respectively, or equivalent methods approved in writing by the Agency. [10 V.S.A. §§556(c) and 556a(d)] [§§5-211(2), 5-211(3) and 5-404 of the *Regulations*]

- (17) Visible Emissions [Specific Installations prior to April 30, 1970]: Emissions of visible air contaminants from Coating Line #1 driers, Coating Line #2 driers, Wickes Boiler #1, B&W #3 and #4 and any other installation at the Facility installed prior to April 30, 1970 shall not exceed forty (40) 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.

Any emission testing conducted to demonstrate compliance with the above emission limits shall be performed in accordance with 40 *CFR* Part 51, Appendix M, Methods 203B and 203C, respectively, or equivalent methods approved in writing by the Agency. [10 V.S.A. §§556(c) and 556a(d)] [§§5-211(1), 5-211(3) and 5-404 of the *Regulations*]

- (18) Coating Limit: With the exception of the paragraph below, the Facility shall not cause or allow the application of any coatings on its paper coating lines with a VOC content in excess of 2.9 pounds per gallon of coating, (excluding water and exempt compounds), as applied. [10 V.S.A. §556(c)] [§5-253.10 of the *Regulations*]

If multiple coatings are applied during the same day, the Facility shall not cause or allow the application of coatings whose daily-weighted average VOC content exceeds 2.9 pounds per gallon (“lbs/gallon”), excluding water and exempted compounds, as applied.

$$E_{VOC} = \frac{\sum_{i=1}^{i=n} M_i C_i}{\sum_{i=1}^{i=n} M_i}$$

The daily-weighted average VOC content shall be calculated as follows:
Where:

- E_{VOC} = the daily weighted average VOC content in lbs/gallon, excluding water and exempted compounds, as applied.
 M_i = The total mass usage of an individual coating applied in 24-hour period in units of gallons per day.
 C_i = The VOC content of the individual coating applied during the 24-hour period in units of lbs/gallon excluding water and exempted compounds, as applied.
 i = Each individual coating applied in the 24-hour period.

Any testing that is conducted to demonstrate compliance with the above VOC contents limits shall be performed in accordance with Reference Method 24 of Appendix A of 40 CFR Part 60 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. §556a(d)] [AOP-95-148]

- (19) 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. [10 V.S.A. §§556(c) and 556a(d)] [§5-502 of the *Regulations*]
- (20) Hazardous Air Pollutants: Emission of federally regulated hazardous air pollutants (HAPs) from the Facility shall not equal or exceed eight (8) tons per year of any single HAP or twenty (20) tons per year of all HAPs combined per year based on any rolling twelve (12) consecutive calendar month period. [10 V.S.A. §§556(c) and 556a(d)] [§§5-261 and 5-501 of the *Regulations*] [40 CFR Part 63]
- (21) 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(2) of the *Regulations*. [10 V.S.A. §§556(c) and 556a(d)] [§5-261 of the *Regulations*]

- (22) Fugitive VOC Emissions: The Permittee shall take reasonable precautions at all times to control and minimize emissions of fugitive volatile organic compounds from the operations at the Facility. This shall include but not be limited to covering coating and solvent containers containing VOC materials when not in use. [10 V.S.A. §§556(c) and 556a(d)] [§5-1015(a)(1) of the *Regulations*]
- (23) Nuisance and Odor: The Permittee shall not discharge, cause, suffer, allow, or permit from any source whatsoever such quantities of air contaminants, or odors beyond the property line of a premises, 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. [10 V.S.A. §§556(c) and 556a(d)] [§5-241(1) of the *Regulations*]

- Compliance Testing and Monitoring -

- (24) The annual mean concentrations of acetaldehyde and vinyl acetate in each latex product used in paper coatings at the Facility shall not exceed 450 ppm, respectively. The Permittee shall either obtain test data from the manufacturer for each batch of latex product delivered to the Facility or shall test each latex product quarterly for the acetaldehyde and vinyl acetate concentrations. Testing for new latex products shall also be completed prior to first use. The Permittee shall furnish the Agency with a written annual report of the results of each such test and the annual mean concentration of acetaldehyde and vinyl acetate. The report shall also include the date of the test(s), the name and contact of the laboratory that conducted the test, and the procedure and or test method used to conduct the test. At least thirty (30) days prior to performing the first test of the acetaldehyde and vinyl acetate content of a latex coating, the Permittee shall submit the procedure and test method to be used for conducting the test for approval to the Agency. [§§5-402(1), 5-404(1), 5-405(1) and 5-1015(a)(3) and (4) of the *Regulations*] [§5-261 of the *Regulations*]
- (25) Periodic Emission Testing of Boilers: Every five (5) years the Permittee shall perform NOx and CO emissions testing on one (1) of the four (4) main boilers when firing natural gas. In addition, if the four (4) boilers burn more than a combined total of 250,000 gallons of No.6 fuel oil per year, the next scheduled five (5) year test shall be performed on the scheduled boiler, while burning No.6 fuel oil and shall include a PM test in addition to the NOx and CO test.

B&W Boiler #3 was tested during September 2021. The Cleaver Brooks Boiler #2 shall be tested within five (5) years of the date of B&W Boiler #3's testing.

A written report of the results shall be furnished to the Agency within thirty (30) days after the completion of the testing. The emission testing shall be performed in order to demonstrate compliance with the emission limitations and emission factors specified within the conditions of this Permit. At least thirty (30) days prior to performing the emission testing required above, the Permittee shall submit to the Agency a pretest report prepared in accordance with the Agency's "Source Emission Testing Guidelines".

[§§5-402(1), 5-404(1), 5-405(1) and 5-1015(a)(3) and (4) of the *Regulations*]

- (26) Boiler combustion efficiency: The Permittee shall perform combustion efficiency testing of each of the boilers by measuring the concentrations of carbon dioxide (“CO₂”) and carbon monoxide (“CO”) in the exhaust gases while burning the predominant fuel used during the preceding six month period. Said testing shall be performed every six months at a minimum except more frequent testing shall be performed initially to develop the trigger level required as part of the O&M plan permit condition. The Permittee shall perform said testing of the CO₂ 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 CO₂ and CO, the Permittee shall calculate and record the combustion efficiency of the boiler using methods approved in writing in advance by the Agency. For the purposes of this Permit combustion efficiency shall be determined using the following equation:

$$\text{CE (\%)} = \frac{\text{CO}_2}{\text{CO}_2 + \text{CO}} \times 100$$

Where;

CE = Combustion efficiency,

CO₂ = % by volume of carbon dioxide in the flue gas, and

CO = % by volume of carbon monoxide in the flue gas.

[§§5-404(1), 5-405(1) and 5-1015(a)(3) and (4) of the *Regulations*]

- (27) Operation and Maintenance Plan [Boiler]: The Permittee shall maintain and update, as appropriate, an operation and maintenance plan (O&M Plan) for the four (4) main boilers. The purpose of said O&M Plan shall be to ensure the proper operation and maintenance of the boilers in order to ensure optimum performance and continuous compliance with the respective conditions and emission limits of this Permit. Additionally the O&M Plan shall help ensure good control of carbon monoxide emissions. The O&M Plan shall include, but not be limited to:
- (a) Methods for determining a combustion efficiency trigger level for each affected boiler. The trigger level shall be based on a minimum of 12 CE tests performed during operating conditions that are representative of the typical operating range of the respective boiler. The initial CE trigger level was established in the Boiler O&M Plan dated August 20, 2014. For boilers that only operate seasonally, the testing must be completed within one-hundred eighty (180) days of the start of its operating season;
 - (b) The procedures to be followed to increase combustion efficiency whenever the combustion efficiency is determined to be less than the trigger level;
 - (c) Descriptions of routine maintenance and inspection procedures including a description of the procedure for and frequency of ash removal from the boiler and the particulate matter emission control device;
 - (d) Provisions for maintaining records of maintenance and inspection procedures,

- including both routine activities and actions taken in response to observations of low combustion efficiency; and
- (e) Provisions for calibration and maintenance of any testing instruments and/or equipment used to measure the concentrations of CO₂ 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 may be considered credible evidence of exceeding the opacity and particulate emission limits set forth in this Permit. Said O&M 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 said O&M Plan at the Agency's request or on its own motion based on operating experience or to reflect equipment or operational changes. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]

- Record Keeping and Reporting -

- (28) Records of Fuel Use: The Permittee shall maintain records of the total quantity of natural gas and fuel oil consumed in the boilers, in ft³ and gallons respectively, each month. At the beginning of each month, the Permittee shall calculate the total quantity of natural gas and fuel oil consumed in the boilers, in ft³ and gallons respectively, during the previous twelve (12) consecutive month period. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*] [40 C.F.R. §60.48c(g)]
- (29) Records of Coatings Use: The Permittee shall maintain the following records regarding the coatings use at the Facility:
- (a) For its paper coating lines each day the name and identification number of the coatings, as applied, on each paper coating unit.
 - (b) The mass of VOC per volume of the coatings (excluding water and exempt compounds), as applied, used each day on each paper coating unit.
 - (c) For the coatings used at the Facility the Permittee shall maintain the following records:
 - (i) The weight of the coatings expressed in pounds;
 - (ii) The volatile organic compound (VOC) content of the coatings, expressed as a weight percentage;
 - (iii) The content of each individual known hazardous air contaminant (HAC) and hazardous air pollutant (HAP) contained in the coatings, expressed as a weight percentage.
 - (d) At the beginning of each month, the Permittee shall calculate the total quantity of coatings used the previous month, expressed in pounds for each.
 - (e) At the beginning of each month, the Permittee shall also calculate the total quantity of VOC, each individual HAC and each individual HAP emissions from the use of all coatings combined for the previous month and the previous twelve (12) consecutive calendar months, expressed in tons of VOC and pounds of each individual HAC and HAP.
 - (f) For the purposes of these calculations, 100 percent of the VOC, volatile HAC and volatile HAP content of the coatings shall be assumed to be emitted unless

- a lower percentage is approved in writing by the Agency.
- (g) At the beginning of the calendar year, the Facility will verify and log the certified test result to ensure compliance of the HMSE limit for acetaldehyde and vinyl acetate. The Permittee will include the mean acetaldehyde and vinyl acetate concentration in ppm in each product, the name and contact information of the laboratory that conducted the test, and the procedure and or test method used to conduct the test.

[10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]

- (30) In addition to the record keeping requirements above, the Facility shall maintain the following records. Each month, the Facility shall calculate and record the total quantity of SO₂ and NO_x emissions during the previous (12) consecutive calendar month period. These calculations shall use the formulas provided in Conditions (13) and (12) respectively.
- (31) **Records of Combustion Efficiency Testing:** The Permittee shall maintain records of the results of the combustion efficiency testing conducted on the four boilers. These records shall at least include the test date, identification of boiler tested, a measurement of the load on the boiler (such as fuel feed rate or steam production rate), the concentration of oxygen if available, carbon monoxide and carbon dioxide in the exhaust gas as well as the calculated combustion efficiency. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) and 5-1015(a)(3) and (4) of the *Regulations*]
- (32) **Records of Emergency Engine Usage – fire pump:** The Permittee shall maintain records in a log book, or electronic record system, of all hours of operation of each stationary emergency generator/engine and shall make such records available to the Agency upon request. The records shall include: the dates on which each engine was operated; the number of hours the engine was operated on the respective date, including the starting and ending hours shown on the engine's elapsed hour meter; the purpose of the operation be it emergency, testing or maintenance; and, if the purpose of the operation was for an emergency, the records shall include a brief description of the emergency and its cause. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]
- (33) **Records of Emergency Generator/Engine Usage:** The Permittee shall maintain records in a log book, or electronic record system, of all hours of operation of each stationary emergency generator/engine and shall make such records available to the Agency upon request. The records shall include: the dates on which each engine was operated; the number of hours the engine was operated on the respective date, including the starting and ending hours shown on the engine's elapsed hour meter; the purpose of the operation be it emergency, testing or maintenance; and, if the purpose of the operation was for an emergency, the records shall include a brief description of the emergency and its cause. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]
- (34) **Records of Fuel Oil Certifications [Boilers]:** The Permittee shall obtain from the fuel supplier, for each shipment of fuel oil received at the Facility for use in the boilers a certification or invoice regarding the sulfur content of the fuel oil. The certification or

invoice shall include: the date of delivery, name of the fuel oil supplier, fuel type, quantity of fuel oil delivered, the sulfur content of the fuel delivered, and the location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location, and the method used to determine the sulfur content of the oil. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*] [40 CFR Part 60 Subpart Dc §§60.42c(h) and 60.48c(f)]

(35) Records: 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.

[10 V.S.A. §§556(c) and 556a(d)] [§§5-402, 5-405(1) and 5-1015(5) of the *Regulations*] [40 CFR Part 70.6(a)(3)(ii)(A)]

(36) Records: 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. [10 V.S.A. §§556(c) and 556a(d)] [§§5-402, 5-405(1) and 5-1015(a)(7) of the *Regulations*] [40 CFR Part 70.6(a)(3)(ii)(B)]

(37) Notification: 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. [10 V.S.A. §§556(c) and 556a(d)] [§§5-402 and 5-1015(a)(6) of the *Regulations*]

(38) Notification: 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. This notification requirement includes the proposed installation of any new equipment that is a source of air pollution, including the replacement of an existing permitted air pollution source. 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 except as may otherwise be allowed by the *Regulations*. [10 V.S.A. §§556(c) and 556a(d)] [§§5-402 and 5-501 of the *Regulations*]

(39) Reporting: Semi-Annual Periodic Monitoring Reports: The Permittee shall submit semi-annual reports to the Agency postmarked by the 30th day following the end of each reporting period. The reporting periods shall cover operations from January 1st through June 30th and July 1st through December 31st. The semi-annual reports shall be signed by a responsible official of the Facility and contain the following information regarding the preceding six (6) month reporting period:

- (a) a summary of the fuel usage records required by this Permit;
- (b) a summary of the NOx and SO2 emission calculations as required by this Permit;
- (c) a summary of the periodic combustion efficiency calculations required by this

- Permit;
- (d) a statement of the sulfur content of any and all fuel delivered to the Facility during the reporting period;
 - (e) For stationary sources demonstrating compliance with the emission limitations of §5-253.10 of the Regulations through the use of compliant coatings, a statement that compliant coatings have been used each day in the semiannual reporting period;
 - (f) For stationary sources demonstrating compliance with the emission limitations of §5-253.10 of the *Regulations* through daily averaging, the averaging calculations completed in accordance with §5-253.10, as applicable, for each day within the semiannual reporting period and a statement that the source is in compliance with the respective standard;

[10 V.S.A. §§556(c) and 556a(d)] [40 CFR Subpart Dc §§60.48c(d), 60.48c(e), 60.48c(f) and 60.48c(j)], [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the Regulations] [40 CFR Part 60 Subpart Dc §§60.42c(h) and 60.48c(f)]

- (40) Semi-Annual Fuel Reporting for Subpart Dc Boilers: The Permittee shall submit semi-annual reports to the Agency and the U.S. EPA pertaining to the Cleaver Brooks boiler #2. The reports shall be postmarked by the 30th day following the end of each reporting period. The reporting periods shall cover operations from January 1st through June 30th and July 1st through December 31st. Such semi-annual report shall include the following information:

- (a) Calendar dates covered in the reporting period;
- (b) For fuel oil combusted, either records of fuel supplier certifications as required by this Permit or a statement that no fuel oil was burned during the reporting period; and
- (c) For fuel oil combusted, a certified statement signed by a responsible official of the Facility that the records of fuel supplier certifications submitted represent all of the fuel oil combusted during the reporting period.

[10 V.S.A. §§556(c) and 556a(d)] [40 CFR Subpart Dc §§60.48c(d), 60.48c(e), 60.48c(f) and 60.48c(j)]

- (41) Reporting: Annual Compliance Certification: By February 1st of each year, the Permittee shall submit to the Agency and the U.S. EPA an annual certification of compliance for the previous calendar year which ascertains and identifies the compliance status of the Facility with respect to all terms and conditions of this Permit, including but not limited to the following:

- (a) Identification of each term or condition of the permit that is the basis of the certification;
- (b) The compliance status;
- (c) Whether compliance was continuous or intermittent; and
- (d) The methods used for determining the compliance status of the Facility over the reporting period.
- (e) Emissions of VOCs from the Facility are less than fifty (50) tons per year;
- (f) Emissions of federal HAPs from the Facility are less than eight (8) tons per year for each individual HAP and less than twenty (20) tons per year for total HAPs; and
- (g) Emissions of each regulated state HAC is less than its respective Action Level

(found in Appendix C of the *Regulations*) or the emission of the respective HAC has previously been reviewed and approved by the Agency under §5-261(3) of the *Regulations*

- (h) If necessary, the Permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information [10 V.S.A. §§556(c) and 556a(d)] [§114(a)(3) of the CAA] [§§5-402 and 5-1015(a)(11) of the *Regulations*]
- (42) 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 or if the Facility performs one or more of the air contaminant emitting operations listed in 5-802(2) of the *Regulations*, 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. [10 V.S.A. §§556(c) and 556a(d)] [Subchapter VIII §§5-802, 5-803, 5-807, 5-808 of the *Regulations*]
- (43) All records, notifications and reports that are required to be submitted to the Agency by this Permit shall be submitted to:

Air Quality & Climate Division
Department of Environmental Conservation
Agency of Natural Resources
Davis 4
One National Life Drive
Montpelier, Vermont 05620-3802

[10 V.S.A. §§556(c) and 556a(d)] [§5-402 of the *Regulations*]

- (49) All records, notifications and reports that are required to be submitted to the U.S. EPA by this Permit shall be submitted to:

Attn: Air Compliance Clerk
Director, Enforcement and Compliance Division
U.S. EPA Region I
5 Post Office Square
Suite 100 (04-2)
Boston, MA 02109-3912

[10 V.S.A. §§556(c) and 556a(d)] [§5-402 of the *Regulations*]

- Standard Permit Conditions -

- (50) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Agency which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [10 V.S.A. §§556(c) and (g) and 556a(d)] [40 CFR Part 60.11(d) and 63.6(e)]
- (51) 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*]
- (52) 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.
- [10 V.S.A. §§556(c) and 556a(d)] [§5-1008(e)(4) of the *Regulations*]
- (53) 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 of the *Regulations*] [40 CFR Part 70 §70.6(a)(6)(v)]

- (54) 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, 5-404, and 5-1015(a)(10) of the *Regulations*]
- (55) 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)] [§§5-409 and 5-1006(f) of the *Regulations*]
- (56) 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)]
- (57) 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*]
- (58) 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)]
- (59) 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*. [10 V.S.A. §§556(c) and 556a(d)] [§5-403 of the *Regulations*]
- (60) 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)]
- (61) 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)]
- (62) 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*]

- (63) Renewable Energy Projects – Right to Appeal to Public Service Board. If this decision relates to a renewable energy plant for which a certificate of public good is required under 30 V.S.A. §248, any appeal of this decision must be filed with the Vermont Public Service Board pursuant to 10 V.S.A. §8506. This section does not apply to a facility that is subject to 10 V.S.A. §1004 (dams before the Federal Energy Regulatory Commission), 10 V.S.A. §1006 (certification of hydroelectric projects) or 10 V.S.A. Chapter 43 (dams). Any appeal under this section must be filed with the Clerk of the Public Service Board within 30 days of the date of this decision; the appellant must file with the Clerk an original and six copies of its appeal. The appellant shall provide notice of the filing of an appeal in accordance with 10 V.S.A. 8504(c)(2), and shall also serve a copy of the Notice of Appeal on the Vermont Department of Public Service. For further information, see the Rules and General Orders of the Public Service Board, available on line at www.psb.vermont.gov. The address for the Public Service Board is 112 State Street, Montpelier, Vermont, 05620-2701 (Tel. # 802-828-2358). [10 V.S.A. §§556(c) and 556a(d)]
- (64) All Other Projects – Right to Appeal to Environmental Court. Pursuant to 10 V.S.A. Chapter 220, any appeal of this decision must be filed with the clerk of the Environmental Court within 30 days of the date of the decision. The Notice of Appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Court; and must be signed by the appellant or their attorney. In addition, the appeal must give the address or location and description of the property, project or facility with which the appeal is concerned and the name of the applicant or any permit involved in the appeal. The appellant must also serve a copy of the Notice of Appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings. For further information, see the Vermont Rules for Environmental Court Proceedings, available on line at www.vermontjudiciary.org. The address for the Environmental Court is 2418 Airport Road, Suite 1, Barre, VT 05641 (Tel. # 802-828-1660). [10 V.S.A. §§556(c) and 556a(d)]
- (65) Conditions (1) – (5), (7) – (9), (12), (13), (19), (20), (28), (39) and (40) are derived from the new source review requirements of Subchapter V of the *Regulations*. With the exception of the cited new source review conditions, this Operating Permit shall expire as indicated on the cover page to this Permit. The Permittee shall submit to the Agency a complete application for renewal of the Operating Permit at least six (6) 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

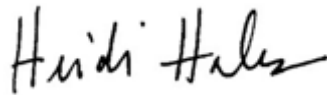
operating permit renewal. However, this Operating Permit shall automatically expire if, subsequent to the renewal application being determined or deemed administratively complete pursuant to §5-1006 of the *Regulations*, the Permittee fails to submit any additional information required by the Secretary 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. [10 V.S.A. §§556(c) and 556a(d)] [§§5-1011 and 5-1012(a) of the *Regulations*] [§§5-1005(c) and 5-1012 of the *Regulations*]

- (66) The conditions of this Permit as set forth above supersede all conditions contained in all prior Permits issued by the Agency to the Permittee for this Facility. [10 V.S.A. §§556(c) and 556a(d)]

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

Permit issued and effective this 13th day of May , 2022.

Permit issuance authorized by:
Julie S. Moore, Secretary
Vermont Agency of Natural Resources



By: _____
Heidi C. Hales, Director
Air Quality & Climate Division

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