

#AOP-04-004
DEC#SJ96-0053

Operating Permit Expiration Date: May 11, 2020

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 11, 2015

Owner/Operator: Ethan Allen Operations, Inc.
27 Railroad Avenue
Orleans, Vermont 05860

Source: Wood Furniture Manufacturing Facility
Ethan Allen Operations, Inc. (Orleans Division)
27 Railroad Avenue
Orleans, Vermont 05860

FINDINGS OF FACT

(A) FACILITY DESCRIPTION

Ethan Allen Operations, Inc. (also referred to herein as "Permittee") owns and operates the Orleans Division that manufactures wood household furniture and furnishings off Railroad Street in the village of Orleans within the town of Barton, Vermont (also referred to herein as "Facility"). Operations at the Facility include: boilers, wood processing operations, and the finishing of wood products, rough mill, machining, wood bending, sanding, assembly, packing, and shipping.

The Permittee has proposed to limit emissions of Hazardous Air Pollutants (HAPs) to less than the federal major source threshold of ten (10) tons per of any one HAP and twenty-five (25) tons per year of all HAPs combined. In addition, the Permittee had previously requested approval in November of 2001 to equip the Riley boiler #233 with residual oil-firing capability due to a decline in the rough mill operations that generate wood waste for fueling the wood fired boilers at the Facility. The Permittee had requested approval to burn up to 155,000 gallons per year of residual oil. A Permit to Construct and Operate (#AOP-95-110) was issued March 19, 2002 granting this approval but the Permit was subsequently appealed by the Permittee and vacated and remanded back to the Agency by the Environmental Court on April 2, 2003. The Permit herein again grants the approval to burn up to 155,000 gallons per year of residual oil in the Riley #233 boiler. The Permittee has also proposed changes to coating formulations to include water based coatings in accordance with their letter dated June 12, 2008 to the Agency as well as the addition and reconfiguration of spray booths at the Facility in accordance with prior correspondence.

Upon issuance of this Permit, the Facility will consist of the following air pollution related equipment and operations:

Equipment Specifications - Energy Plant			
Boiler unit	Unit Rating(s) ¹ : MMBtu/hr max heat input / Boiler Heating Surface (ft ²)	Fuel Type(s)	Year of Installation
Wickes Boiler with a multicyclone, no reinjection	27.8 / 4369	Wet Wood	1965
Riley #233 Boiler with a multicyclone, no reinjection	34.0 / 2670 35.0 / 2670	Dry Wood No. 4 Fuel Oil	1965
Riley #234 Boiler with a multicyclone, no reinjection	34.0 / 2670	Dry Wood	1965
Bryan Boiler	2.7	No. 2 Fuel Oil	1973
Fire Pump, Peerless Pump Division, F.M.C. Corporation Model 8AF25B	255 bhp @ 1750 rpm, 2000 gpm. Fire pump operates on diesel only.	ULSD	1973
Kohler Model 14RESA Standby generator. S/N: 3043962	23.6 bhp @ 3600 rpm	Propane	2012

Equipment Specifications - Wood Waste Handling Operations	
Equipment/Make/Model ²	Date of Installation
Unit E Rough Mill: Carter Day #999, Model 232 RF10 <ul style="list-style-type: none"> Air/cloth ratio of 10:1, Number of bags 232 Cloth Area = 2960 ft² ACFM of 30,000, hours of operation 8760 	1987
Unit Da Boiler Room: American Von Tongeren (AVT), Model 100S <ul style="list-style-type: none"> Air/cloth ratio of 18:1, Number of bags 1008 Cloth Area = 333 ft² ACFM of 6,000, hours of operation 8760 	≈ 1973
Unit Db Boiler Room: American Von Tongeren (AVT), Model 100S <ul style="list-style-type: none"> Air/cloth ratio of 18:1, Number of bags 1008 Cloth Area = 333 ft² ACFM of 6,000, hours of operation 8760 	≈1973
Unit #1 Finish Mill/Sanding: MAC #1403, Model 144MCF494 <ul style="list-style-type: none"> Air/cloth ratio of 7.5:1, Number of bags 494 Cloth Area = 7163 ft² ACFM of 54,000, hours of operation 3840 	2000
Unit #2 Finish Mill/Sanding: MAC #1404, Model 144MCF494 <ul style="list-style-type: none"> Air/cloth ratio of 7.5:1, Number of bags 494 Cloth Area = 7163 ft²ACFM of 54,000, hours of operation 3840 	2000
Unit #3 Finish Mill/Sanding MAC #1405, Model 144MCF494 <ul style="list-style-type: none"> Air/cloth ratio of 8.4:1, Number of bags 494 Cloth Area = 7163 ft² ACFM of 60,000, hours of operation 3840 	2000
Unit #4 Rough Mill: MAC 1442, Model 144MCF361 <ul style="list-style-type: none"> Air/cloth ratio of 9.6:1, Number of bags 361 Cloth Area = 5202 ft² ACFM of 50,000, hours of operation 3840 	2002
Unit #5 Finish Mill: MAC 1440, Model 144MCF494 <ul style="list-style-type: none"> Air/cloth ratio of 7:1, Number of bags 494 Cloth Area = 7118 ft² ACFM of 50,000, hours of operation 3840 	2002
Chip Feed Cyclone CS <ul style="list-style-type: none"> Handles green wood woodchips, emissions need not be quantified 	1993
Cyclone RS (Vents to AVT Dust Collector) <ul style="list-style-type: none"> Closed loop, emissions need not be quantified 	1993
Cyclone FS (Vents to AVT Dust Collector) <ul style="list-style-type: none"> Closed loop, emissions need not be quantified 	1993
Saw Dust Unloading Systems for silo	2008
Miscellaneous Operations	
Thirty (30+/-) spray booths	Various
Glue lines (wood glues- PVA or Aliphatic) includes Glue Panel Dept and Assembly.	Various

¹ MMBtu/hr - Million British Thermal Units per hour maximum rated heat input. Bhp - brake horse power at rated load and speed. Gpm - gallons per minute of pumped water. kW - kilo Watt electrical output. ULSD - ultra low sulfur diesel.

² ACFM - actual cubic feet per minute.

(B) FACILITY CLASSIFICATION

The Facility is classified as a source of air contaminants pursuant to Title 10 of the *Vermont Statutes Annotated* ("10 VSA") §555 and §5-401(4) [Wood products industries], (6)(a) [Fossil fuel burning equipment greater than 90 H.P. output], and (9) [Surface finishing and coating operations, including application of paints, lacquers, solvents and related materials] of the *Vermont Air Pollution Control Regulations* (hereinafter "*Regulations*"). In addition, §5-101 of the *Regulations* defines a *stationary source* as any structure(s), equipment, installation(s), or operation(s), or combination thereof, which emit or may emit any air contaminant, which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person or persons under common control. Based on this definition, all of the equipment, operations, and structures at the Facility are grouped together by the Agency of Natural Resources, Department of Environmental Conservation, Air Pollution Control Division (hereinafter "Agency") as one stationary air contaminant source for purposes of review under the *Regulations*.

(C) PRIOR AGENCY ACTIONS/APPROVALS

The Facility was originally constructed prior to July 1, 1979. The Agency subsequently issued the following "Permit to Construct" approvals pursuant to 10 VSA §556 and §§5-501 and/or 5-502 of the *Regulations* and the following "Permit to Operate" approvals pursuant to 10 VSA §556a and Subchapter X of the *Regulations*.

Prior Agency Approvals and Actions	
Date of Action	Description of Agency Approval/Action
July 7, 1985	Original Agency "Permit to Construct" approval for conversion of the Wickes boiler to wood fuel and installation of multiple cyclones on existing two Riley wood-fired boilers.
January 13, 1993	#AP-92-024 - Construction permit approving the installation of 2 additional spray booths to supplement existing spray finishing operations.
March 10, 1993	#AP-92-024a - Amendment approval to install a single spray booth for the repair area.
April 19, 1993	#AP-92-024b - Amendment approval to install three additional spray booths.
November 1, 1999	#AP-92-024c - Amendment approval for the use of pre-catalyzed low formaldehyde coatings (<0.01%) in existing finishing operations.
August 14, 2000	#AP-92-024d - Amendment approval to replace two existing fabric filter collectors with three new large systems.
August 8, 2001	#AP-92-024e - Amendment for approval to install two replacement (MAC) fabric filters for a Carter-Day (Model 144RJ120) and homemade Shaker unit. Replaced two twenty thousand gallon tanks, and installed one fifteen thousand gallon tank in their place.

Prior Agency Approvals and Actions	
Date of Action	Description of Agency Approval/Action
March 19, 2002	#AOP-95-110 – The Permittee requested to burn oil in the Riley wood waste boiler (#233) and initial permit to operate was issued, but subsequently remanded by the Court on April 2, 2003.

(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 §556 and §5-501 of the *Regulations* a Permit to Construct, or an amendment to any existing Permit to Construct, must be obtained before commencing the construction, installation, modification or operation of an air contaminant source. The proposed modification of the Riley wood-fired boiler #233 to burn residual fuel oil firing as well as the addition of spray booths and imposition of a cap on HAP emissions are both considered to be modifications to the Facility under the *Regulations* and consequently an amended Permit to Construct must be obtained.

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. Allowable emissions from the Facility are estimated to be greater than ten (10) tpy combined and emissions of particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), carbon monoxide (CO), and volatile organic compounds (VOC) are estimated to be in excess of the one-hundred (100) tpy threshold (fifty (50) tpy threshold for VOC) 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" and must obtain a Permit to Operate consistent with the requirements of Subchapter X of the *Regulations* and Title 40 *Code of Federal Regulations* ("40 CFR") Part 70.

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

Future Allowable Air Contaminant Emissions (tons/year) ¹					
PM/PM ₁₀ /PM _{2.5}	SO ₂	NO _x	CO	VOCs ²	HAPs ³
432/73/26	5.8	<100	780	<314 (Facility-wide)	<10/25

¹ PM/PM₁₀ - particulate matter and particulate matter of 10 micrometers in size or smaller; SO₂ - sulfur dioxide (effective July 1, 2018 SO₂ emissions will decrease to 2.9 tpy); 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 VOC's as defined in §5-101(123) of the *Regulations* and 40 CFR 51.100(a). The 314 tpy of VOC emissions is based on

- 304 tpy from finishing/glueing operations and 10 tpy from the boilers.
- ³ Emissions of individual HAPs each < 10 tpy and emissions of total HAPs combined <25 tpy. Actual total combined HAPs estimated at close to but <25 tpy.

(E) REVIEW FOR THE PERMIT TO CONSTRUCT

(a) New Source Review Designation

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

(b) Most Stringent Emission Rate

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

The proposed project is designated as a non-major modification of a stationary source and therefore is not subject to review under the MSER requirements in §5-502 of the *Regulations*. 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 (AQIE) is performed to demonstrate whether or not a proposed project will cause or contribute to violations of the national ambient air quality standards (NAAQS) and/or significantly deteriorate existing air quality as determined by prevention of significant deterioration (PSD) increments. The Agency's implementation procedures concerning the need for an ambient air quality impact evaluation under §5-501 of the *Regulations*, specifies that such analyses may be required when a project results in an allowable emissions increase of ten (10) tons per year or more of any air contaminant, excluding VOCs. Additionally, the Agency may require an air quality impact evaluation where the short-term allowable emission rates will significantly increase as a result of a project.

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

(F) REVIEW FOR THE PERMIT TO OPERATE

(a) Applicable Requirements

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

(i) Vermont Air Pollution Control Regulations:

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. Wickes boiler and the two Riley boilers, when firing wood.
Section 5-211(2) - Prohibition of Visible Air Contaminants, Installations Constructed Subsequent to April 30, 1970. Facility wide except the three boilers noted above. All dust collectors or equipment ducted to dust collectors are assumed to have been modified since 1970.
Section 5-221(1) - Prohibition of Potentially Polluting Materials in Fuel, Sulfur Limitation in Fuel.
Section 5-231(1) - Prohibition of Particulate Matter; Industrial Process Emissions.
Section 5-231(3) - Prohibition of Particulate Matter; Combustion Contaminants.
Section 5-231(4) - Prohibition of Particulate Matter; Fugitive Particulate Matter.
Section 5-241 – Prohibition of Nuisance and Odor.
Section 5-253.14 - Control of Volatile Organic Compounds from Solvent Metal Cleaning.
Section 5-253.16 – Wood Furniture Manufacturing. This regulation combines the federal MACT requirements of 40 CFR Part JJ and the Control Techniques Guideline for Wood Furniture Manufacturing. The rule was adopted on August 14, 2003 and became effective March 1, 2004. ¹
Section 5-261(3) – Control of Hazardous Air Contaminants - Hazardous Most Stringent Emission Rate.
Section 5-402 – Written Reports When Requested.

Applicable Requirements from the Vermont Air Pollution Control Regulations
Section 5-403 – Circumvention.
Subchapter VIII – Registration of Air Contaminant Sources.
Subchapter X – Operating Permits.

¹ With the exception of subsections 5-253.16(c)(2), (c)(3), (c)(4), (d)(5), (3)(3), or (f)(2), this regulation was adopted by the EPA as part of the Vermont State Implementation Plan on 07/19/2011 (see 76 FR 42560).

(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 RACT 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 issued on August 8, 2001 (#AP-92-024e). The conditions within that existing permit are considered applicable requirements pursuant to §5-1002(d) of the *Regulations*. The requirements of that permit which are not being modified herein are incorporated into this new combined Permit to Construct and Operate (#AOP-04-004).

(iv) Federal Requirements:

Applicable Requirements from Federal Regulations and the Clean Air Act
40 CFR Part 63, Subpart JJ - National Emission Standards for Wood Furniture Manufacturing Operations: §63.802 Emission limits; §63.803 Work practice Standards; §63.806 Recordkeeping requirements; §63.807 Reporting requirements. Applicable to all facilities engaged in the manufacture of wood furniture and that were major HAP sources on the final compliance date specified in Subpart JJ.
<i>This facility opted for a self-imposed cap on HAPs of < 10 tpy of any single HAP; < than 25 tpy of all HAPs combined so is no longer considered a major source of HAPs. However, the Facility will remain subject to the above regulation regardless of future actual or allowable emissions based on the U.S. EPA's "Once-in, Always-in" policy, articulated in a memorandum, dated May 16, 1995 from John S. Seitz Director of Air Quality Planning and Standards. However, to the extent that EPA's policy on this issue changes, the Permittee may in the future be able to avoid applicability of 40 CFR Part</i>

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63, Subpart JJ based on its future actual or allowable HAP emissions.

40 CFR 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. This gas exemption allows use of backup fuel during gas curtailments and up to 48 hours of elective use. 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 must conduct tune-ups every five years. 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.

Subpart JJJJJ applies to the all boilers at the Facility. Permittee submitted initial notification September 13, 2011, and Notification of compliance status on June 26, 2014. Since the Facility is not a major source of HAPs, the Facility is not subject to Subpart DDDDD.

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. Applies to new 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 existing engines that commenced construction (installed) prior to June 12, 2006 at area sources of HAPs. By May 3, 2013 requires engines equal and greater than 300 bhp to meet CO emission standards which may necessitate catalytic controls, must install crankcase ventilation system, and requires ULSD fuel. Engines <300 bhp need only meet maintenance requirements including changing oil & filter and, inspecting and replacing if necessary, air filter, hoses and belts. Does not apply to existing emergency units at an area source residential/commercial/institutional facilities unless they are enrolled in demand response programs. Subject emergency units are subject to maintenance requirements, must install an elapsed hour meter and must use ULSD commencing January 1, 2015 if used for DR.

Vermont has delegation of this federal regulation for Title V permits. Subpart ZZZZ applies to the emergency fire pump engine at this Facility requiring compliance with the maintenance requirements only.

40 CFR Part 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. Applies to new spark ignition engines installed after June 12, 2006.

Vermont has delegation of this regulation for Title V permits. Subpart JJJJ applies to the propane-fueled Kohler standby generator at the Facility.

40 CFR Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial- Institutional Steam Boiler Units: §60.42c Standards for sulfur dioxide; §60.43c Standards for particulate matter; §60.48c Reporting and recordkeeping requirements. Applicable to all boilers 10 MMBTU per hour 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. The modification of No.4 residual oil firing capability to the greater than 30 MMBTU/hr Riley boiler #233 makes this boiler now subject to this regulation when firing No.4 residual oil. Under Section 60.14(a), upon modification, an existing facility shall become an

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affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere. Due to the existing actual and allowable emission rate of particulate matter from this boiler when firing the exempt wood fuel, there will not be an increase in particulate matter as a result of the approval to burn No.4 residual oil. Therefore the particulate emission standards of Dc will not apply. The sulfur dioxide emission limits of Dc will apply and the facility is therefore limited to a maximum of 0.5% sulfur by weight fuel. Since the boiler is greater than 30 MMBTU/hr the facility is required to sample and test the residual oil burned in the Riley #233 boiler after each new shipment of oil is received, and before any oil is combusted, to determine the sulfur content of the oil. The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports for each six-month period.

Clean Air Act §§114(a)(3) Inspections, Monitoring and Entry; 502(b) Permit Programs; and 504(a)-(c) Permit Requirements and Conditions; 40 *CFR* Part 64 Compliance Assurance Monitoring; 40 *CFR* Part 70 §§70.6(a)(3)(i)(B) and 70.6(c)(1) State Operating Permit Programs - Permit content. Upon renewal of a Title V Permit to Operate, a facility must comply with enhanced monitoring and compliance assurance monitoring requirements if applicable. the CAM rule applies to each Pollutant Specific Emission Unit (PSEU) at a major source that is required to obtain a part 70 or part 71 permit if the unit satisfies all of the following criteria: 1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant other than an emissions limitation or standard that is exempt under §64.2(b)(1) [exempt limitations include emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to Section 111 or 112 of the Act], 2) The unit uses a control device to achieve compliance with any such limit or standard; and 3) The unit has pre-control device emissions of the applicable regulated pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

The woodworking operations used to process kiln-dried wood at the Facility are considered to be emission units. These operations have their PM emissions controlled by either fabric fillers and/or cyclones and are subject to PM emission limits. None of these units are projected to have uncontrolled emissions of PM₁₀ or PM_{2.5} above 100 tons per year. Therefore the facility is not subject to the CAM requirements.

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.

The Permittee has stated that the Facility does not have more than the threshold quantity of a regulated substance and thus is not subject to these requirements.

(b) Non-Applicable Requirements/Permit Shield

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 Permittee

has requested and is hereby granted a permit shield. The permit shield applies to the Facility based on the equipment identified in Findings of Fact A in as long as the Permittee operates in accordance with the information contained within this permit.

The list below identifies requirements which are not applicable to the Permittee and the determinations thereof. So long as the Permittee operates within the constraints of these determinations, the permit shield shall apply to the following provisions:

§5-231(2) (a)&(b) – Prohibition of Particulate Matter – Incinerator Emissions

This regulation limits the PM emission rate from incinerators. As defined in the regulations: "incinerator" means any structure or furnace in which combustion takes place, the primary purpose of which is the reduction in volume and weight of an unwanted material.

The Agency has determined the Permittee does not operate any combustion units which meets the definition of an incinerator. In addition, In addition this permit prohibits the use of the wood boilers in a manner that would meet the definition of incinerator. Therefore §5-231(2) (a)&(b) does not apply to the wood boilers.

§5-241(3) – Control of Odor from Industrial Processes.

(a) No person shall operate or use any device, machine, equipment or other contrivance for an industrial process which as determined by the Air Pollution Control Officer is an odoriferous process per se, unless all gases, vapors, and gas-entrained effluents from such facility are incinerated at a temperature of 871 degrees C (1600 degrees F) for a period of not less than five-tenths (0.5) second, or processed in such manner as determined by the Air Pollution Control Officer to be equally or more effective for the purpose of air pollution control.

The Permittee does not operate any device, machine, equipment or other contrivance which has currently been determined by the Air Pollution Control Officer to be an odoriferous process per se. So this regulation does not apply to the facilities equipment shown in Findings of Fact A of this permit and a permit shield has been granted for this equipment.

§5-251(1) – No person shall discharge, or cause, allow or permit emissions of oxides of nitrogen, expressed as NO_x, from any fuel burning equipment with a heat input capacity of 250 million BTU's per hour or more in excess of:

- (a) 0.36 grams per million calories heat input (0.20 pounds per million BTU) derived from gaseous fossil fuel.
- (b) 0.54 grams per million calories heat input (0.30 pounds per million BTU) derived from liquid fossil fuel.
- (c) 1.26 grams per million calories heat input (0.70 pounds per million BTU) derived from solid fossil fuel (except lignite or a fossil fuel containing 25 percent by weight, or more of coal refuse).

The Facility does not have any fuel burning equipment with a heat input capacity of 250 MMBtu/hr or more. Therefore this regulation does not apply to the Facility.

§5-251(2) – Reasonably available control technology for large stationary sources.

- (a) The owner or operator of any stationary source that has allowable emissions of one hundred (100) tons per year or more of nitrogen oxides shall install, maintain and use reasonably available control technology, approved by the Secretary, to limit the discharge of nitrogen oxides from the source by May 31, 1995.

This permit limits the Facilities total NO_x emission to less than 100 tons/year. The Agency has determined §5-251(2)(a) does not currently apply to the Facility.

§5-252 Control of Sulfur Dioxide Emissions

No person shall discharge, or cause, allow or permit emissions of sulfur dioxide from any steam generating fuel burning equipment with a heat input capacity of 250 million BTU's per hour or more in excess of:

- (a) 1.4 grams per million calories heat input (0.80 pounds per million BTU) derived from liquid fossil fuel.
(b) 2.2 grams per million calories heat input (1.2 pounds per million BTU) derived from solid fossil fuel.

The Facility does not have any fuel burning equipment with a heat input capacity of 250 MMBtu/hr or more. Therefore this regulation does not apply to the Facility.

§5-253.1 Petroleum Liquid Storage in Fixed Roof Tanks

- (a) Applicability. This subsection shall apply to any above ground fixed roof storage tank with a capacity greater than 40,000 gallons (151,417 liters) used to store petroleum liquid having a true vapor pressure VAPCR Adopted September 2011 [41] equal to or greater than 1.52 pounds per square inch (10.5 kilopascals).

The Facility does not have any fixed roof storage tanks with a capacity greater than 40,000 gallons; therefore this regulation does not apply to the Facility

§5-253.2 Bulk Gasoline Terminals

The Facility does not own or operate a bulk gasoline terminal, therefore this regulation does not apply to the Facility.

§5-253.3 Bulk Gasoline Plants

The Facility does not own or operate a bulk gasoline plant, therefore this regulation does not apply to the Facility.

§5-253.4 Gasoline Tank Trucks

The Facility does not own or operate a gasoline tank truck, therefore this regulation does not apply to the Facility.

§5-253.6 Volatility of Gasoline

- (a) No person shall sell or supply as fuel at or from bulk gasoline terminals and bulk gasoline plants a gasoline having a Reid vapor pressure greater than 9.0 pounds per square inch during the period May 1 through September 15 of each year, beginning in 1989.
- (b) The owner or operator of any bulk gasoline plant or bulk gasoline terminal from which gasoline is distributed shall maintain records of the Reid vapor pressure of any gasoline that is delivered to or distributed from the facility for at least two calendar years.
- (c) Any person who sells or supplies gasoline to retailers, other merchants, and/or industrial, institutional or commercial users shall clearly designate the maximum Reid vapor pressure of the gasoline and the time period in which it is intended to be dispensed.

The Facility does not sell or supply gasoline, therefore this regulation does not apply to the Facility.

§5-253.7 Stage II Vapor Recovery Controls at Gasoline Dispensing Facilities

(a) Applicability.

- (1) This subsection shall apply to any gasoline dispensing facility with an annual gasoline throughput of 400,000 gallons or more in the 1994 calendar year, or any year thereafter.

The Facility does not own or operate a gasoline dispensing facility with an annual gasoline throughput of 400,000 gallon or more/year, therefore this regulation does not apply to the Facility.

§5-253.10 Paper Coating

(a) Applicability. This subsection applies to all paper coating units, except that any paper coating unit shall be exempt from this subsection that is within a paper coating source that has actual emissions without control devices from all paper coating units within the source of less than 15 lbs of volatile organic compounds per day. Once a source becomes subject to this subsection, it shall remain so even if emission levels subsequently fall below the applicability threshold.

The Facility does not own or operate a paper coating unit, therefore this regulation does not apply to the Facility.

§5-253.11 Perchloroethylene Dry Cleaning

The Facility does not own or operate a perchloroethylene dry cleaning equipment, therefore this regulation does not apply to the Facility.

§5-253.13 *Coating of Miscellaneous Metal Parts*

(a) Applicability.

- (1) This subsection applies to any *miscellaneous metal parts and products coating unit*, except automobile, light-duty and heavy-duty truck refinishing.
- (2) The *emission* limits in this subsection do not apply to any *coating unit* within a source whose *actual emissions* without *control devices* from all *miscellaneous metal part and product coating units* within the source are less than 5 tons of VOCs per year.
- (3) Any source that becomes or is currently subject to this subsection shall remain so even if *emissions* from the source later fall below the applicability threshold.

The Facility is not involved in the coating of miscellaneous metal parts, therefore this regulation does not apply to the Facility.

§5-253.15 *Cutback and Emulsified Asphalt*

- (a) Applicability. This subsection applies to the manufacture, mixing, storage, and use of *cutback asphalts* and *emulsified asphalts*. No exemptions are allowable based on the size or throughput of an operation.

The Facility does not use cutback and emulsified asphalt, therefore this regulation does not apply to the Facility

§5-253.20 *Other Sources That Emit Volatile Organic Compounds*

(a) Applicability.

- (1) This subsection shall apply to any operation that emits VOCs and that is not subject to any other subsection of Section 5-253. A source is subject to this subsection if it has operations or processes not otherwise regulated under Section 5-253, that, as a group, have *allowable emissions* of 50 tons or more of VOCs per calendar year since January 1, 1990.
- (2) Any source that becomes or is currently subject to the provisions of this subsection by exceeding the applicability threshold shall remain subject to the provisions of this subsection even if its *emissions* later fall below the applicability threshold.
- (3) This subsection does not apply to *fuel* combustion sources, the surface *coating* of wood and waste water treatment plants.

The Facilities wood furniture manufacturing operations are subject to §5-253.16 and the Facility does not have operations that are not otherwise regulated under §5-253 that, as a group, has allowable emissions of 50 tons or more of VOCs per calendar year since January 1, 1990, therefore this regulation does not apply to the Facility.

40 CFR Part 60 Subparts Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units)

Subpart Db applies to steam generating units constructed or modified after June 19, 1984 and which are greater than 100 MMBtu/hr. There are no steam generating units at the Facility with a heat input rating in excess of 100 MMBtu/hr. This regulation does not apply to the smaller (<100 MMBtu/hr) steam generating units installed and operating at the Facility. Should the Permittee modify an existing steam generating unit such that it has a heat input rating greater than 100 MMBtu/hr, or if the Permittee installs a steam generating unit with a heat input rating greater than 100 MMBtu/hr, then this permit shield will be void.

40 CFR Part 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, Institutional Boilers and Process Heaters. Applicable to new and existing boilers and process heaters, that are located at a major source of HAPs after September 13, 2007. An existing boiler, which commenced construction or reconstruction before June 4, 2010, remains subject to the major source boiler NESHAP if the facility is a major source of HAPs on January 31, 2016, the first compliance date for existing boilers.

The Agency has determined that prior to September 13, 2007, the Facility was no longer a major source of HAPs, and therefore the Facility is not subject to this regulation.

Note that the facility will be regulated as an area source and is subject to 40 CFR Part 6, Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers.

Non-Applicable Requirements for which a Permit Shield is Granted
§5-231(2) (a) & (b) – Prohibition of Particulate Matter – Incinerator Emissions.
§5-241(3) – Prohibition of Nuisance and Odor – Control of Odor from Industrial Processes.
§5-251 – Control of Nitrogen Oxides Emissions.
§5-252– Control of Sulfur Dioxide Emissions.
§5-253.1 – 4; 6, 7, 10 - 13, 15 and 20 – Control of Volatile Organic Compounds.
40 CFR Part 60 Subparts Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units)
D40 CFR Part 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, Institutional Boilers and Process Heaters.

(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 with the exception of those conditions related to annual registration pursuant to §§5-807 and 5-808 of the *Regulations* as well as those conditions based on §§5-253.16(c)(2), (c)(3), (c)(4), (d)(5), (3)(3), or (f)(2) of the *Regulations*.

(d) Compliance Certification

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

(G) HAZARDOUS MOST STRINGENT EMISSION RATE

Pursuant to §5-261 of the *Regulations*, any stationary source whose current or proposed actual emission rate of a hazardous air contaminant ("HAC") is equal to or greater than the respective Action Level (found in Appendix C of the *Regulations*) shall achieve the Hazardous Most Stringent Emission Rate ("HMSE") for the respective HAC. Pursuant to §5-261(1)(b)(ii) of the *Regulations*, all fuel burning equipment which combusts virgin liquid or gaseous fuel is exempt from this section. However, based on the 2013 registration data, emissions of the following compounds from the finishing operations at the Facility have exceeded their respective Action Levels at one time or more over the past several years and are now being reviewed under §5-261:

- Crystalline silica (14808-60-7)
- Methyl Amyl Ketone (110-43-0)
- isobutyl acetate (110-19-0)
- n-butyl acetate (123-86-4)
- isobutyl alcohol (78-83-1)
- Ethyl Alcohol (64-17-5)
- Acetone (67-64-1)
- 1,2,4-trimethyl benzene (95-63-6)
- methyl amyl ketone (110-43-0)
- 1-butoxy-2-propanol (synonym butyl propasol) (5131-66-8)
- 1-2-4-Trimethyl Benzene (95-63-6)
- Titanium Dioxide (13463-67-7)
- Isobutyl Ester Isobutyric Acid (97-85-8)

The Permittee has made substantial efforts over the past several years to reduce emissions of state HACs, federal HAPs, and VOCs through the following measures: (1)

coating reformulations to reduce VOCs and TRI (Toxic Release Inventory under SARA Title III) reportable toxic compounds and thus replace more toxic HACs and HAPs with less toxic compounds; (2) continued reformulation measures specifically focused on increased use of acetone in place of more toxic components; (3) more extensive use of high volume low pressure (HVLP) spray guns to improve coating transfer efficiency and reduce coating usage; (4) use of use of high solids "hot spray" coatings (sealer 3.8 lbs VOC/gal; topcoat 4.8 lbs VOC/gal) in place of the previous conventional pre-catalyzed coatings (sealer 4.0 - 4.3 lbs VOC/gal; topcoat 3.6 - 6.0 lbs VOC/gal). The high solid hot spray coatings use heat to increase viscosity of higher solids coatings with less solvent. Due to the increased solids content, these coatings also attain the necessary film build thickness with two coats instead of the previous standard of three coats; and (5) the installation of the UV flat-line roll-coat finishing system at the Beecher Falls facility, that also serves the Orleans facility, that uses 100% solids (solvent free) coatings where highest quality finishes are not necessary such as drawer bottoms and backs, and (6) the use of water-based finishes.

Emissions of silica are also reduced by measures that decrease coating usage such as HVLP spray guns, high solids coatings and UV coating applications. In addition, overspray filters are used to capture a minimum of 95% of the overspray in the exhaust air. It should also be noted that while the silica in the coatings is in the crystalline silica form it is not emitted with the hazardous properties of free crystalline silica since it is encapsulated in the overspray coatings.

The Agency has determined that the Permittee is achieving HMSER for the respective HACs through implementation of the above noted emission reduction measures along with continued compliance with §5-253.16 of the Regulations and a cap on annual emissions of each HAC. In addition, the Permittee will be required to continue to investigate reformulation and coating options to minimize all HAC emissions which are in excess of their respective Action Level with the emphasis on minimizing those HACs with the lowest respective Action Levels (i.e. higher toxicity) and shall submit a report to the Agency annually detailing its findings.

This HMSER 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 HMSER determinations for this Facility are presented below.

In addition, the Facility was previously reviewed under §5-261 of the *Regulations* for modifications to the Facility approved November 1, 1999. The modifications to the Facility included the proposed use of pre-catalyzed coatings. The modification was determined to result in an exceedance of the Action Level for the HAC formaldehyde. The HMSER determinations are presented below:

Hazardous Most Stringent Emission Rate Determinations		
Date of Determination/ Permit #	Pollutant	Description/Emission limit
November 1, 1999 #AP-92-024c RE-evaluation: May 11, 2015 (#AOP-04-004)	Formaldehyde	Approval for the use of up to 55,000 gallons per year of pre-catalyzed coatings at the Facility resulted in emissions of the air contaminant. MSER limits free formaldehyde content of pre-catalyzed coatings to a maximum of 0.01% by weight, as applied. Emissions of formaldehyde from these coatings shall not exceed a combined emission rate of 0.043 lbs/8hours on an "annual average" basis, calculated assuming 100% of the free formaldehyde in the respective coating is emitted.
May 11, 2015 (#AOP-04-004)	Crystalline Silica Methyl Amyl Ketone N-Butyl Acetate Isobutyl Acetate Isobutyl Alcohol Ethyl Alcohol Acetone 1-butoxy-2-propanol 1-2-4-Trimethyl- Benzene Titanium Dioxide Isobutyl Ester Isobutyric Acid	Based on 2013 registration data: Use of HVLP spray to minimize over spray and use of over spray filters with a minimum ninety-five (95) percent collection efficiency. Crystalline silica emissions shall not exceed 30 lbs/yr (1) continued coating reformulations to reduce more toxic HACs and HAPs with less toxic compounds; (2) continued reformulation with acetone or other low toxicity and low or no VOC compounds where feasible; (3) use of HVLP spray guns where feasible; (4) use of high solids "hot spray" coatings where feasible; (5) use of the UV flat-line roll-coat finishing system where feasible; (6) continue to comply with §5-253.16 of the Regulations, (7) individual HAC caps, in pounds per year (see permit condition (38) below).

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 proposes to issue a Permit approving the Facility, as described in the above Findings of Fact, subject to the following:

PERMIT CONDITIONS

- Construction and Equipment Specifications -

- (1) The Permittee shall construct and operate the Facility in accordance with the plans and specifications submitted to the Agency and in accordance with the conditions set forth herein, including the equipment specifications as listed in Findings of Fact (A) or their equivalent as approved by the Agency. [10 V.S.A. §§556(c) and 556a(d)] [§5-501(1) of the *Regulations*]
- (2) The Permittee shall control particulate matter emissions from the Wickes boiler, and the two Riley boilers by installing and operating multiple cyclone fly-ash collectors of the specifications indicated in its application, or an equivalent device capable of achieving similar emission reductions if approved in writing by the Agency. All elements of these air pollution control systems shall be maintained in good working order at all times and operated in accordance with the manufacturer's operation and maintenance recommendations. Each air pollution control system shall be in operation whenever the respective emission source it serves is in operation. [10 V.S.A. §§556(c) and 556a(d)] [§5-502(4) of the *Regulations*] [Application for #AOP-95-110]
- (3) Wood Waste Dust Collection Systems: The Permittee shall control emissions of particulate matter from the following wood waste handling operations with the respective emission control device having the specifications, including total air flow to the device and with regards to fabric filter devices the stated air to cloth ratio, as listed in Findings of Fact (A), or an equivalent device capable of achieving equivalent emission reductions if approved in writing by the Agency.

Each fabric filter emission control systems shall be maintained in good working order at all times and operated in accordance with the manufacturer's operation and maintenance recommendations. Each air pollution control system shall be in operation whenever the respective emission source is in operation. [10 V.S.A. §§556(c) and 556a(d)] [§§5-231 and 5-1015(a)(1), (3) and (4) of the *Regulations*]

- (4) Wood Waste Dust Collection System: Each fabric filter collector shall be equipped with a pressure drop measurement device which continuously measures and displays the pressure drop across the fabric filter collector (e.g., manometer or magnehelic). All elements of these fabric filters, including their pressure drop measurement device, shall be maintained in good working order at all times and shall be operated in accordance with the manufacturer's operation and maintenance recommendations. Each fabric filter shall be in operation whenever the respective emission source(s) it serves are in operation.

The Permittee shall use the pressure drop measurement device to maintain the pressure drop across each fabric filter within acceptable ranges as specified by the manufacturer. Failures due to harsh weather conditions not reasonably preventable by the Permittee shall not be considered a violation of the Permit. [10 V.S.A. §§556(c) and 556a(d)] [§5-1015(a)(1), (3) and (4) of the *Regulations*]

- (5) Spray Booths: The Permittee shall equip each spray booth with filters designed to effectively capture and control a minimum of ninety-five (95) percent of the overspray solids in the exhaust from the spray finishing operations. [10 V.S.A. §§556(c) and 556a(d)] [§§5-261(3) and 5-1015(a)(1) of the *Regulations*]
- (6) Stack heights: The exhaust gases from the Wickes, Riley #233, and Riley #234 Boiler, shall be vented vertically through a stack or stacks which extends a minimum of seventy-two (72) feet above the stack base grade elevation. The stacks shall 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. [10 V.S.A. §§556(c) and 556a(d)]

- Operational Limitations -

- (7) In order to maintain emissions of nitrogen oxides (NO_x) below the one hundred (100) tons per year threshold of §5-251(2), the Permittee shall not burn fuel in all boilers combined located at its Facility in quantities greater than the following limit during any rolling twelve (12) consecutive calendar month period:

$$0.020 * X + 1.94 * Y + 7.45 * Z < 200,000$$

where:

X = quantity of No.2 and No.4 fuel oil burned in units of gallons;

Y = quantity of wet wood fuel burned in units of tons (as fired, including moisture). Wet wood fuel shall be defined as wood fuel with a moisture content of 20% by weight or greater on a green basis.

Z = quantity of dry wood fuel burned in units of tons (as fired, including moisture). Dry wood fuel shall be defined as wood fuel with a moisture content of less than 20% by weight on a green basis.

The NO_x emission rates of 1.94 lbs per ton of wet wood and 7.45 lbs per ton of dry wood in the above formula may be revised by the Agency based on the results of any stack emission testing on the Facility boilers or other credible emission data as approved by the Agency. [10 V.S.A. §§556(c) and 556a(d)] [§5-251(2) of the *Regulations*]

- (8) The annual fuel oil consumption at the Facility for all fuel-oil burning equipment shall not exceed a combined 155,000 gallons per year based upon any rolling twelve (12) consecutive calendar month period. [10 V.S.A. §§556(c) and 556a(d)] [Application for AOP-95-110]
- (9) Only No. 2 fuel oil or lighter grade fuel oils with a maximum sulfur content not to exceed 0.05 percent by weight may be used as fuel in the Bryan boiler unless the Permittee

obtains prior written approval from the Agency to use another type of fuel. Likewise, only wood or No. 4 fuel oil or lighter grade fuel oils with a maximum sulfur content of 0.5% may be used in the Riley #233 Boiler.

Commencing July 1, 2018, the sulfur content of No.2 and lighter distillate oils shall not exceed 0.0015 percent by weight and the sulfur content of No.4 residual oil shall not exceed 0.25 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*]

- (10) Wood Boiler: The Permittee shall operate the wood fired boilers at optimum combustion efficiency by, at a minimum, ensuring the proper amounts of combustion air are continuously provided to the boilers and by operating the boilers in accordance with the O&M Plan required by this Permit. The Permittee shall also assure that at least one employee who has received instruction in the proper operation and monitoring of the boilers to achieve optimum combustion efficiency is present or on call whenever one or more of the wood fired boilers are in operation. [10 V.S.A. §§556(c) and 556a(d)] [§5-1015(a)(3) and (4) of the *Regulations*]
- (11) Wood Fuel: Only natural wood as defined in the *Regulations*, as well as sawdust or other wood waste generated by wood processing operations, may be used as fuel in the wood fuel burning equipment without the prior written approval of the Agency. In addition, the wood fuel burning equipment shall only be used when there is a need for space or process heat and shall not be used as an *incinerator* where the primary purpose is the reduction in volume and/or weight of an unwanted material. [10 V.S.A. §§556(c) and 556a(d)] [§§5-101, 5-231(2) and 5-1015(a)(1) of the *Regulations*]
- (12) 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. For boilers installed prior to June 4, 2010 the first tune-up is required by March 21, 2014. Subsequent tune-ups must be completed no later than 25 months after the prior tune-up.
- (b) A one-time energy assessment of the boilers as well as any required energy use systems at the Facility as required by 40 *CFR* §63.11201(b). The energy assessment must be completed by March 21, 2014.
- (c) Notification, reporting and recordkeeping requirements as specified in §63.11225. This includes:
- (i) §63.11225(a)(2): Initial Notification:
- a. For boilers installed prior to June 4, 2010 the initial notification must be sent to the EPA no later than January 20, 2014.
- (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.
- b. Notification of the completion of the energy assessment must be submitted no later than July 19, 2014

(iii) §63.11225(b): Annual Compliance Certification:

- a. By March 1 of each year, prepare, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year. For boilers that are subject only to a requirement to conduct a biennial or 5-year tune-up and are not subject to emission limits or operating limits, you may prepare only a biennial or 5-year compliance report.

40 CFR Part 63 Subpart JJJJJJ Reporting Requirements Summary Table			
Subsection	Description	Due Date	Completion Date
§63.11225(a)(2)	Initial Notification	January 20, 2014	Sept. 13, 2011
§63.11225(a)(4) a	Notification of initial boiler tune up	August 21, 2014	June 26, 2014
§63.11225(a)(4) b	Notification of completion of the energy assessment	July 19, 2014	June 26, 2014
§63.11225(b)	Biennial Compliance Certification	March 1 (Biennial)	Ongoing
§63.11223	Biennial tune-ups	Bi-Annually	Ongoing

[40 CFR Part 63 Subpart JJJJJJ] [40 CFR Part 63]

(13) Pre-catalyzed type coatings (sealers and lacquers):

- (a) The Permittee may only use pre-catalyzed coatings that have a free formaldehyde content not to exceed 0.01% by weight, as applied.
- (b) The annual usage of pre-catalyzed coatings shall not exceed a combined 55,000 gallons per year.
- (c) The annual average emission rate of formaldehyde from pre-catalyzed coatings shall not to exceed 0.043 pounds per eight hours.

[§5-261(3) of the Regulations] [Application for #AP-92-024c]

(14) Generators/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 NSPS Subpart IIII and NESHAP ZZZZ, as may be applicable. All engines, including generators/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 450 bhp, may still require approval from the Agency in the form of an amended permit prior to installation. Stationary reciprocating internal combustion engines include those used to power electric generator sets or to provide shaft power for other equipment such as compressors but does not include engines used to power motor vehicles. [§§5-271 and 5-501 of the Regulations] [40 CFR Part 60 Subpart IIII and Part 63 Subpart ZZZZ]

(15) Generators/Spark Ignition: The Permittee shall not install or operate a stationary spark ignition 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 NSPS Subpart JJJJ, as may be applicable. Permittee must comply by purchasing an engine certified to the emission standards, as applicable, for the same engine class and maximum engine power. Permittee must meet the requirements as specified in 40 CFR Part 1068, Subparts A through D, as they apply. If you adjust engine settings according to and consistent with the manufacturer's instructions, you must meet one of the requirements below:

- (a) If Permittee operates and maintains the certified engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance. No performance testing is required. Also meet the requirements as specified in 40 CFR Part 1068, Subparts A-D, as they apply.
- (b) If Permittee does NOT operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and you must demonstrate compliance according to:
 - (i) *Modified or reconstructed engines:* Purchasing or otherwise owning or operating an engine certified to the emission standards in 60.4233 (f), as applicable, OR Conduct a performance test. Must be conducted within 60 days after the engine commences operation after the modification or reconstruction.
 - (ii) *Engines $x < 100$ HP:* must keep a maintenance plan and records of conducted maintenance and must maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.
 - (iii) *Engines, same as above in item ii:* In addition, you must conduct an initial performance test within 1 year of engine startup.
 - (iv) *Engines $x > 500$ HP:* same as above in item iii. In addition, you must conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first.

[10 V.S.A. §§556(c) and 556a(d)] [§§5-401(6)(c) and 5-501 of the Regulations]

- (16) Emergency Generators/Engines: The stationary emergency fire pump engine and Kohler standby generator shall be used only for emergency purposes and up to 100 hours per year for routine testing and maintenance. Emergency purposes are limited to 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) The Independent System Operator has determined a power capacity deficiency exists and has implemented a voltage reduction of five (5) percent or more of normal operating voltage; or
 - (c) 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*]

- (17) **Solvent Metal Cleaning:** Pursuant to 5-253.14 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. 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) If cleaning unit is equipped with a cover, close it whenever parts are not being handled in the cleaner¹;
 - (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*]

- (18) **Open Burning:** The Permittee shall burn only natural wood in any open burn pile and shall only burn in accordance with this Permit and the *Regulations*. For the purposes of this Permit, natural wood shall be defined as trees, including logs, boles, trunks, branches, limbs, and stumps, lumber including timber, logs or slabs, especially when dressed for use. This definition shall also include pallets which are used for the shipment of various materials so long as such pallets are not chemically treated with any preservative, paint, or oil. This definition shall not extend to other wood products such as sawdust, plywood, particle board and press board. Prior to conducting any open burning of natural wood, other than leaves, brush, or tree cuttings from normal grounds maintenance, the Permittee shall notify the Air Pollution Control Officer and shall obtain approval from the Air Pollution Control Officer to conduct open burning at the Facility. [§5-202 of the *Regulations*]

**- Operational Limitations -
[From Wood Furniture Manufacturing Rule]**

- (19) **Work Practice Implementation Plan:** In accordance with §5-253.16(d)(1) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall prepare, maintain and adhere to a written work practice implementation plan that defines environmentally

¹ Safety Kleen 105 solvent is no longer being used and has been replaced with a non VOC, non-HAP self-regenerating cleaner (Bio-Circle L[®]). The parts washer unit supplied for this material does not have a cover.

desirable work practices for each wood furniture manufacturing operation and for all other finishing, gluing, cleaning and wash-off operations at the source and addresses each of the work practice standards presented in §5-253.16(d)(2) through (11) of the *Regulations*.
[Also §5-261(3) of the *Regulations*]

(20) Operator Training Course: In accordance with §5-253.16(d)(2) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall train all new and existing personnel, including contract personnel, who are involved in finishing, gluing, cleaning, and wash-off operations or implementation of the requirements of this rule. All new personnel shall be trained upon hiring. All personnel shall be given refresher training annually. The owner or operator shall maintain a copy of the training program with the work practice implementation plan. The training program shall include, at a minimum, the following:

- (a) A list of all current personnel by name and job description that are required to be trained;
- (b) An outline of the subjects to be covered in the initial and refresher training for each position or group of personnel;
- (c) Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, appropriate application techniques, appropriate cleaning and wash-off procedures, appropriate equipment setup and adjustment to minimize finishing material usage and overspray, and appropriate management of cleanup wastes; and
- (d) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.

[Also §5-261(3) of the *Regulations*]

(21) Inspection and Maintenance Plan: In accordance with §5-253.16(d)(3) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall prepare, maintain and adhere to a written equipment leak inspection and maintenance plan that specifies:

- (a) A minimum visual inspection frequency of once per month for all equipment used to transfer or apply coatings, adhesives, or organic solvents;
- (b) An inspection schedule;
- (c) Methods for documenting the date and results of each inspection and any repairs that were made;
- (d) The timeframe between identifying the leak and making the repair, which adheres, at a minimum, to the following schedule:
 - (i) A first attempt at repair (e.g., tightening of packing glands) shall be made no later than five calendar days after the leak is detected; and
 - (ii) Final repairs shall be made within 15 calendar days after the leak is detected, unless the leaking equipment is to be replaced by a new purchase, in which case repairs shall be completed within three months.

[Also §5-261(3) of the *Regulations*]

(22) Cleaning and Washoff Solvent Accounting System: In accordance with §5-253.16(d)(4) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall develop and use an organic solvent accounting form to record:

- a) The quantity and type of organic solvent used each month for washoff and cleaning;
- b) The number of pieces washed off, and the reason for the washoff; and
- c) The quantity of spent organic solvent generated

[Also §5-261(3) of the *Regulations*]

- (23) Chemical Composition of Cleaning and Washoff solvents: In accordance with §5-253.16(d)(5) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall not use cleaning or washoff solvents that contain any of the pollutants listed in Table 4 to Subpart JJ of Title 40 of the *Code of Federal Regulations* (CFR) Part 63 in concentrations subject to MSDS reporting as required by OSHA. [Also §5-261(3) of the *Regulations*]
- (24) Spray Booth Cleaning: In accordance with §5-253.16(d)(6) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters. However, when the spray booth coating or other protective material used to cover the booth is being replaced, the owner or operator shall use no more than 1.0 gallon of organic solvent per booth to prepare the surface of the booth prior to applying the booth coating. [Also §5-261(3) of the *Regulations*]
- (25) Storage Requirements: In accordance with §5-253.16(d)(7) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall use normally closed containers for storing finishing, gluing, cleaning, and washoff materials. [Also §5-261(3) of the *Regulations*]
- (26) Application Equipment Requirements: In accordance with §5-253.16(d)(8) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall not use conventional air spray guns to apply finishing materials, except as allowed by §5-253.16(d)(8) of the *Regulations*. In addition, Part 63, Subpart JJ, as amended on November 21, 2011, and Section 63.803(h) prohibits sources from using conventional spray guns unless routing to a control device. [Also §5-261(3) of the *Regulations*]
- (27) Line Cleaning: In accordance with §5-253.16(d)(9) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall pump or drain all organic solvent used for line cleaning into a normally closed container. [Also §5-261(3) of the *Regulations*]
- (28) Gun Cleaning: In accordance with §5-253.16(d)(10) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall collect all organic solvent used to clean spray guns into a normally closed container. [Also §5-261(3) of the *Regulations*]
- (29) Wash-off Operations: In accordance with §5-253.16(d)(11) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall control emissions from wash-off operations by:
- (a) If wash-off tanks are designed with covers, keep covered when not in use; and
 - (b) Minimizing dripping by tilting or rotating the part to drain as much solvent as possible.

[Also §5-261(3) of the *Regulations*]

- (30) The Permittee shall continue to explore, and implement where feasible, reformulation of coatings to reduce all HAC emissions which are in excess of their respective Action Level with the emphasis on minimizing those HACs with the lowest respective Action Levels (ie. higher toxicity). The Permittee shall also continue the use of high solids "hot spray" coating technologies where feasible including application of topcoats and sealers. The Permittee shall also continue the use of the UV coating operation at the Beecher Falls facility where feasible including portions of parts where the highest quality finishes are not necessary. The Permittee shall demonstrate compliance with this condition by submitting to the Agency annually as part of its Annual Compliance Certification (1) a listing of coating HAC emissions in excess of their respective Action Level and the respective emission in pounds per year for the current year and two years prior, (2) a discussion of any measures implemented, including coating reformulations, in the current year and its effect on those HACs in excess of their respective Action Level, (3) a statement affirming continued use where feasible of the hot spray and UV roll-coating measures, or their equivalent. [10 V.S.A. §§556(c) and 556a(d)] [§§5-261(3) and 5-1015(a)(1) of the *Regulations*]

- Emission Limitations -

- (31) Particulate Matter [Wood Boilers]: Emissions of air contaminants from the two wood fired boilers shall not exceed the following limits:

Particulate Matter Emission Limitations		
Boiler	Emission Limitations	
	gr/dscf or lbs/MMBTU ¹	lbs/hour ²
Wickes Boiler with a multicyclone, no reinjection	0.20 gr/dscf wood ³	20.17
Riley #233 Boiler with a multicyclone, no reinjection	(wood) 0.20 gr/dscf wood (No. 4 oil) 0.28 lbs/MMBTU	24.41 9.8
Riley #234 Boiler with a multicyclone, no reinjection	0.20 gr/dscf wood	24.41
Bryan Boiler	0.5 lbs/MMBTU	1.35

¹ gr/dscf equals grains of pollutant emitted per dry standard cubic foot of undiluted exhaust gas corrected to 12% carbon dioxide and 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 based on the MMBTU/hr rating of the unit as given in Findings of Fact A.

³ The wood emission limit shall apply when wood comprises 50% or more of the heat input to the boiler and the oil emission limit shall apply when oil comprises greater than 50% of the heat input to the boiler.

Any emission testing conducted to demonstrate compliance with the above emission limits shall be performed in accordance with the U.S. EPA Reference Methods 5 found in 40 CFR Part 60, Appendix A, 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)] [§§5-231, 5-261, and 5-404 of the Regulations]

- (32) Particulate Matter [Wood Waste Dust Collection Systems]: Emissions of particulate matter (PM) from the fabric filters used in the wood waste dust collection systems shall not exceed the following limits:

Particulate Matter Emission Limitations		
Unit	Emission Limitations	
	Gr/dscf ¹	lbs/hour ²
Unit E Rough Mill: Carter Day #999, Model 232 RF10	0.06	15.4
Unit Da: American Von Tongeren (AVT), Model 100S	0.06	3.1
Unit Db: American Von Tongeren (AVT), Model 100S	0.06	3.1

Particulate Matter Emission Limitations		
Unit	Emission Limitations	
	Gr/dscf ¹	lbs/hour ²
Unit #1 Finish Mill/Sanding: MAC #1403, Model 144MCF494	0.020	9.3
Unit #2 Finish Mill/Sanding: MAC #1404, Model 144MCF494	0.020	9.3
Unit #3 Finish Mill/Sanding: MAC #1405, Model 144MCF494	0.020	10.3
Unit #4 Rough Mill: MAC 1442, Model 144MCF361	0.010	4.3
Unit #5 Finish Mill: MAC 1440, Model 144MCF494	0.010	4.3

¹ gr/dscf equals grains of pollutant emitted per dry standard cubic foot of undiluted exhaust gas.

² lbs/hour equals pounds of pollutant emitted per hour based on ACFM from Findings of Fact A.

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

- (33) Particulate Matter [Wood Waste Dust Collection Systems]: The Facility shall not discharge exhaust from each of the five MAC fabric filter collectors to the ambient air in excess of 3,840 hours per year. [10 V.S.A. §556(c)] [Application for #AP-92-024e]
- (34) Visible Emissions [Facility Wide]: Emissions of visible air contaminants from any installation at the Facility, constructed prior to April 30, 1970, including Wickes Boiler, Riley Boiler #234 and Riley #233 when burning wood fuel, 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 except where otherwise noted in this Permit. Emissions of visible air contaminants from any installation at the Facility, constructed subsequent to April 30, 1970 including the Riley Boiler #233 when burning fuel oil, 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. [§§5-211(2), 5-211(3) and 5-404 of the *Regulations*]

- (35) Fugitive Emissions: The Permittee shall take reasonable precautions at all times to control and minimize emissions of fugitive particulate matter from the operations at the Facility. This shall include but not be limited to the following:

- (a) Taking precautions to prevent fugitive particulate matter (i.e. wood dust) during the handling and disposal of the wood waste material collected from the wood processing operations. Any drop loading of wood waste material from a silo, storage bin or similar unit into a receiving vehicle or trailer for subsequent removal shall be done in an area enclosed on at least three sides in order to prevent wind currents from re-entraining the material or its equivalent. The Agency may require additional dust control measures to ensure compliance, such as requiring an enclosed chute or stocking be used to limit the drop distance, based on Agency inspections of the actual operations; and
- (b) The use of wet suppression, calcium chloride applications or other dust control measures as necessary to minimize fugitive dust from all unpaved roads and traffic areas at the Facility;

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

- (36) Hazardous Air Pollutants: Emission of federally regulated hazardous air pollutants (HAPs) from the Facility shall not equal or exceed ten (10) tons per year of any single HAP or twenty-five (25) tons per year of all HAPs combined per year based on any rolling twelve (12) consecutive calendar month period. [40 *CFR* Part 63] [§5-1015(a)(1) of the *Regulations*][AOP-04-005]
- (37) Hazardous Air Contaminants: Emissions of state hazardous air contaminants (HACs) from the applicable operations at the Facility shall not equal or exceed their respective Action Level (found in Appendix C of the *Regulations*) unless the Agency has reviewed and approved such HAC emission under §5-261 of the *Regulations*. [§5-261 of the *Regulations*]

- (38) **Hazardous Air Contaminants:** Emissions of the following hazardous air contaminants shall not exceed the following limits:

Hazardous Air Contaminant Emission Limitations		
Hazardous Air Contaminant	CAS #	Emission Limitation lbs/year ¹
ISOBUTYL ESTER ISOBUTYRIC ACID	97-85-8	3,400
1,2,4-TRIMETHYL BENZENE	95-63-6	1,700
ACETONE	67-64-1	92,000
ETHYL ALCOHOL	64-17-5	69,000
BUTYL PROPASOL	5131-66-8	2,700
ISOBUTYL ACETATE	110-19-0	32,000
ISOBUTYL ALCOHOL	78-83-1	19,000
METHYL AMYL KETONE (2- heptanone)	110-43-0	51,000
N-BUTYL ACETATE	123-86-4	81,000
TITANIUM DIOXIDE	13463-67-7	300
SILICA, CRYSTALLINE	14808-60-7	30
FORMALDEHYDE ²	50-00-0	7.1

¹ lbs/year equals pounds of pollutant emitted per rolling twelve (12) consecutive calendar month period. Limits based on the average emissions from years 2010-2013 registration data times 1.33.

² lbs/year equals pounds of pollutant emitted per rolling twelve (12) consecutive calendar month period. Limits based on Vermont Air Pollution Control Regulations, July 2014 APPENDIX C HAZARDOUS AMBIENT AIR STANDARDS CATEGORY I assuming 1095 8-hours periods per year.

[10 V.S.A. §§556(c) and 556a(d)] [§5-261(3) of the *Regulations*]

- (39) **Nuisance and Odor:** The Permittee shall not discharge, cause, suffer, allow, or permit from any source whatsoever such quantities of air contaminants or other material which will cause injury, detriment, nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort, repose, health or safety of any such persons or the public or which causes or has a natural tendency to cause injury or damage to business or property. The Permittee shall not discharge, cause, suffer, allow, or permit any emissions of objectionable odors beyond the property line of the premises. [§5-241(1)]

and (2) of the *Regulations*]

**- Emission Limitations –
[from Wood Furniture Manufacturing Rule]**

- (40) The Permittee shall limit VOC emissions from wood furniture manufacturing operations by:
- (a) Using only topcoats containing no more than 1.8 lbs VOC/lb solids, as applied, and sealers containing no more than 1.9 lbs VOC/lb solids, as applied, or the equivalent;
 - (b) Using acid-cured alkyd amino vinyl sealers containing no more than 2.3 lbs VOC/lb solids, as applied, and acid-cured alkyd amino conversion varnish topcoats containing no more than 2.0 lbs VOC/lb solids, as applied, or the equivalent; and
 - (c) Using only strippable spray booth coatings containing no more than 0.8 lbs VOC/lb solids, as applied.

[§5-253.16(c)(1) of the *Regulations*]

- (41) The Permittee shall limit formaldehyde emissions from all wood furniture manufacturing operations at the Facility by:
- (a) Limiting total formaldehyde use in coatings and contact adhesives to no more than 7.1 pounds per rolling 12 month period, or
 - (b) Using coatings and contact adhesives only if they are low-formaldehyde coatings and adhesives in any wood furniture manufacturing operations. *Low-formaldehyde* means, in the context of a coating or contact adhesive, a product concentration of less than or equal to 1.0 percent formaldehyde by weight, as described in a certified product data sheet for the material.

[40 *CFR* Part 63, Subpart JJ §63.802(a)(4)]

- (42) The Permittee shall limit VHAP emissions from wood furniture manufacturing operations by:
- (a) Using only stains, wash-coats, sealers, topcoats, basecoats and enamels with VHAP contents of no more than 1.0 lbs VHAP/lb solids, as applied; thinners for stains, sealers and topcoats that contain no more than 10% VHAP by weight; and thinners for wash-coats, basecoats and enamels that contain no more than 3% VHAP by weight; or the equivalent;
 - (b) Limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives based on the following criteria:
 - (i) For foam adhesives used in products required to meet flammability requirements, the VHAP content of the adhesive shall not exceed 1.8 lb VHAP/lb solids, as applied; or
 - (ii) For all other contact adhesives, the VHAP content of the adhesive shall not exceed 1.0 lb VHAP/lb solids, as applied, or the equivalent.

[§5-253.16(c)(2) of the *Regulations*] [40 *CFR* Part 63, Subpart JJ]

- Compliance Testing and Monitoring -

- (43) The Permittee shall perform periodic emission testing on the Wickes Boiler and the two (2) Riley Boilers for NO_x, PM, and Combustion Efficiency while burning wood. The Permittee shall also perform emission testing on the Riley (#233) boiler for NO_x, PM, and Combustion Efficiency while burning fuel oil. For each emission test, the Permittee shall furnish the Agency with a written report of the results within thirty (30) days after the completion of the testing. The conditions of this section of the permit are not to be considered continuous air monitoring requirements. The initial emission testing shall be performed during calendar year 2016; emission testing shall be conducted at a minimum once every five years. The emission testing shall be performed in order to demonstrate compliance with the emission limitations 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*]
- (44) Boiler O&M: The Permittee shall develop and implement an operation and maintenance plan for the Wickes Boiler and the two (2) Riley Boilers within one-hundred eighty (180) days after the issuance of this Permit. The purpose of said plan shall be to ensure that the boilers remain in continuous compliance with the applicable requirements contained in this Permit. The O&M plan shall include, but not be limited to:
- (a) Methods for determining the combustion efficiency trigger level for each affected wood fired boiler. The trigger level shall be based on a minimum of twelve (12) combustion efficiency tests performed during operating conditions representative of the typical operating range of the respective boiler. Two trigger levels may be established by the Permittee to represent winter and summer conditions. The initial combustion efficiency trigger level shall be established within 180 days after the issuance of this Permit. The trigger level may be established by the Permittee using hand held instrumentation or other methods acceptable to the agency;
 - (b) The procedures to be followed to increase combustion efficiency whenever the combustion efficiency is determined to be less than the trigger level. The procedures may be in the format of a troubleshooting guide for operators;
 - (c) Descriptions of routine maintenance and inspection procedures;
 - (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. Oxygen sensors or other methods for testing may be used if acceptable to the Agency and if considered to be appropriate and adequate methods for use in the wood burning combustion systems.

Although not considered continuous air monitoring, failure to take reasonable steps, in accordance with said plan, to increase the combustion efficiency, once it has fallen below the trigger level, shall be considered credible evidence of possible exceedance of 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 this plan at the Agency's request or on its own motion based on operating experience, or to reflect equipment or operational changes. All O&M Plan modifications are subject to Agency review and shall not be implemented until the Permittee has received written approval from the Agency. [10 V.S.A. §§556(c) and 556a(d)] [§§5-405(1) and 5-1015(a)(4) of the *Regulations*]

- (45) Boiler Combustion Efficiency: The Permittee shall perform periodic combustion efficiency testing of the Wickes Boiler and the two (2) Riley Boilers by measuring the concentrations of carbon dioxide ("CO₂") and carbon monoxide ("CO") in the exhaust gases or other Agency approved parameters. The initial test shall be performed within 90 days of issuance of this Permit and may include hand held monitors. Said testing shall be performed at least once every two months thereafter. The Permittee shall perform said testing of the CO₂ and CO concentrations, or other Agency approved parameters, using methods which have been approved in writing in advance by the Agency. The CO₂ and CO concentrations may be on a wet or dry basis as long as they are both on the same basis. 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, unless an alternative method is approved by the Agency:

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

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*]

- (46) General O&M [Wood Waste Dust Collection System Fabric Filters]: The Permittee shall continue to implement an operation and maintenance plan for the wood waste dust collection system fabric filters. The purpose of said plan shall be to ensure that the fabric filters remain in continuous compliance with the conditions of this Permit. The operation and maintenance plan shall include, but not be limited to, a description of routine maintenance and inspection procedures, provisions for maintaining records of such maintenance and inspections as well as findings of those inspections and any corrective actions which were taken. Said operation and maintenance plan shall be present at the facility at all times and shall be made available to representatives of the Agency upon request. The Permittee shall revise this plan at the Agency's request or on its own motion to reflect equipment or operational changes. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]

- (47) Fuel Sampling for Residual Oil: The Permittee shall sample and test the residual oil to be burned in the Riley #233 boiler from the storage tank after each new shipment is received, and before any oil is combusted, to determine the sulfur content of the oil. Subpart Dc regulations require that the fuel be certified to meet ASTM Method D4294 or D5453 or other approved substitute methods. Records must be kept of the fuel sulfur analysis of the tank after each delivery, and records of each 30-day average sulfur content (weight percent) of residual fuel consumed in boiler. Said sampling and testing shall be performed in order to determine compliance with the residual fuel oil sulfur restriction in Condition (9) of this Permit.[40 CFR Part 60 Subpart Dc §§60.46c(d)(2)]

Record Keeping and Reporting -

- (48) Records of Fuel Use: The Permittee shall maintain records of the total quantity of wet/green wood, dry wood and fuel oil consumed in the combined boilers each month. The quantity of wet/green wood and dry wood shall be recorded separately and in units of tons as fired including the weight of moisture. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]
- (49) Records of Fuel Use: The Permittee shall maintain records of the total quantity of No.2 fuel oil (monthly basis) and No.4 fuel oil (daily basis) recorded separately in units of gallons. At the beginning of each month, the Permittee shall calculate the total quantity of each fuel consumed in the boilers during the previous twelve (12) consecutive month period. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*] 40 CFR Part 60 Subpart Dc
- (50) Records of NOx Emissions: Based on the above fuel usage records and the equation contained in condition (7) of this Permit, the Permittee shall calculate and record at the beginning of each month the quantity of NOx emitted from the Facility boilers for the previous twelve (12) consecutive calendar month period. [10 V.S.A. §§556(c) and 556a(d)] [§§5-405(1) and 5-1015(a)(3) and (4) of the *Regulations*]
- (51) Records of HAC Emissions: The Permittee shall calculate and record at the beginning of each month the quantity of each hazardous air contaminant identified in condition (38) of this Permit emitted from the Facility finishing operations for the previous twelve (12) consecutive calendar month period. [10 V.S.A. §§556(c) and 556a(d)] [§§5-261, 5-405(1) and 5-1015(a)(3) and (4) of the *Regulations*]
- (52) Records of Combustion Efficiency Testing: The Permittee shall maintain records of the results of the combustion efficiency testing conducted on the respective 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 concentrations of oxygen, 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*]
- (53) Records of Fuel Use - NSPS Subpart Dc: The Permittee shall maintain records of the total quantity of fuel oil consumed in the subject boilers, in gallons, each month. At the beginning of each month, the Permittee shall calculate the total quantity of fuel oil consumed in the subject boilers, in gallons, during the previous twelve (12) consecutive

month period. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*] [40 *CFR* Subpart Dc]

- (54) Records of Residual Fuel Oil Sampling: The Permittee shall maintain records of the residual fuel oil sampling and testing required by Condition (47) of this Permit. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*] [40 *CFR* Part 60 Subpart Dc]
- (55) Records of Finishing Material Usage: In accordance with §5-253.16(f) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall maintain records of the following:
 - (a) A certified product data sheet for each coating, finishing material, thinner, contact adhesive, and strippable spray booth coating used at the source;
 - (b) The VHAP content in lb VHAP/lb solids, as applied, of each finishing material, thinner, and contact adhesive used at the source;
 - (c) The formaldehyde content, in lb/gal, as applied, of each finishing material and contact adhesive subject to the emission limits in Condition 38.
 - (d) The VOC content in lb VOC/lb solids, as applied, of each topcoat, sealer, and strippable spray booth coating used at the source;
 - (e) The quantity of each finishing material, thinner, contact adhesive, and strippable spray booth coating used at the source each month; and
 - (f) For stationary sources demonstrating compliance with the emission limitations of §5-253.16 of the *Regulations* through monthly averaging, the averaging calculation completed in accordance with the following equation, as applicable, for each month.

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

Where:

- $E_{HAPorVOC}$ = the average HAP or VOC content of the finishing material, in lbs HAP or VOC/lb solids;
- C = the HAP or VOC content of a particular finishing material, in lbs HAP or VOC/lb solids, as applied;
- M = the mass of solids, in pounds, in a particular finishing material used during the monthly averaging period.

[10 V.S.A. §§556(c) and 556a(d)] [§§5-253.16(f), 5-405(1) and 5-1015(a)(3) and (4) of the *Regulations*]

- (56) Records of Work Practice Implementation Plan Requirements: In accordance with §5-253.16(f) of the *Regulations* and 40 *CFR* Part 63 Subpart JJ, the Permittee shall maintain records of the work practice implementation plan and all records associated with fulfilling the requirements of that plan, including, but not limited to:
 - (a) Records demonstrating that the operator training program is in place;
 - (b) Records collected in accordance with the inspection and maintenance plan;
 - (c) Records associated with the cleaning solvent accounting system;

- (d) Records associated with the limitation on the use of conventional air spray guns showing total finishing material usage and the percentage of finishing materials applied with conventional air spray guns for each semiannual period; and
- (e) Copies of documentation such as logs developed to demonstrate that the other provisions of the work practice implementation plan are followed.

[10 V.S.A. §§556(c) and 556a(d)] [§§5-253.16(f), 5-405(1) and 5-1015(a)(3) and (4) of the *Regulations*]

(57) Records of Precatalyzed Coatings: The Permittee shall maintain records of the monthly usage of pre-catalyzed sealer and pre-catalyzed lacquer at the Facility, in units of gallons. At the beginning of each month, the Permittee shall calculate the total quantity of pre-catalyzed coatings used at the Facility, in units of gallons, during the previous twelve (12) consecutive month period. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]

(58) Records of all required compliance testing, including combustion efficiency testing, shall include the following:

- (a) date, place, and time of sampling or measurements;
- (b) date analyses were performed;
- (c) company or entity that performed the analyses;
- (d) analytical techniques or methods used;
- (e) results of all such analyses; and
- (f) operating conditions existing at the time of sampling or measurement.
[§§5-402(1), 5-405(1) and 5-1015(a)(5) of the *Regulations*]

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

(60) Semi-Annual Periodic Monitoring Reports: Within thirty (30) days after July 1 and January 1 of each year, the Permittee shall submit to the Agency a report, signed by a responsible official of the Facility, containing the following information regarding the preceding six (6) months:

- (a) A summary of the fuel usage records required by this Permit. Such records shall also be sent to the U.S. EPA at the address noted in condition (61);
- (b) A summary of the NO_x 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 as well as the testing as specified in condition (47). Such records shall also be sent to the U.S. EPA at the address noted in condition (61);
- (e) For stationary sources demonstrating compliance with the emission limitations of §5-253.16 of the *Regulations* through the use of compliant coatings, a statement that compliant coatings and thinners have been used each day in the semiannual reporting period;
- (f) For stationary sources demonstrating compliance with the emission limitations of §5-253.16 of the *Regulations* through monthly averaging, the averaging calculations completed in accordance with §5-253.16, as applicable, for each

month within the semiannual reporting period and a statement that the source is in compliance with the respective standard;

- (g) For stationary sources demonstrating compliance with §5-253.16 of the *Regulations* through the use of compliant contact adhesives, a statement that compliant contact adhesives have been used each day in the semiannual reporting period;
- (h) A statement that compliant strippable spray booth coatings have been used each day in the semiannual reporting period;
- (i) A statement that the work practice implementation plan is being followed; and
- (j) If the stationary source was in violation of any provision §5-253.16 of the *Regulations*, the measures taken to bring the source into compliance.

[§§5-402(1), 5-405(1) and 5-1015(a)(5) of the *Regulations*] [40 CFR Part 60 Subpart Dc §§60.48c(d),(e), and (j)]

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

- (a) Identification of each term or condition of the permit that is the basis of the certification;
- (b) The compliance status;
- (c) Whether compliance was continuous or intermittent; and
- (d) The methods used for determining the compliance status of the Facility over the reporting period.
- (e) Emissions of each regulated state HAC

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

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

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

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

- (63) The Permittee shall notify the Agency in writing of any significant proposed physical or operational change at the Facility which may increase the emission rate of any air contaminant to the ambient air regardless of any concurrent emission reductions that may be achieved. If the Agency determines that a permit amendment is required, a new application and the appropriate application fee shall be submitted. The permit amendment

shall be obtained prior to commencing any such change except as may otherwise may be allowed by the *Regulations*. [10 V.S.A. §556(c)] [§§5-402 and 5-501 of the *Regulations*]

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

- (65) Reporting requirements for *40 CFR Part 63 Subpart JJJJJ*

Reporting Requirements Summary Table			
Subsection	Description	Due Date	Completion Date
§63.11225(a)(2)	Initial Notification	January 20, 2014	Sept. 13, 2011
§63.11225(a)(4) a	Notification of initial boiler tune up	August 21, 2014	June 26, 2014
§63.11225(a)(4) b	Notification of completion of the energy assessment	July 19, 2014	June 26, 2014
§63.11225(b)	Biennial Compliance Certification	March 1 (Biennial)	Ongoing
§63.11223	Biennial tune-ups	Biennial	Ongoing

- (66) All records, reports, and notifications 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 2
 One National Life Drive,
 Montpelier, Vermont 05620-3802

[§5-402 of the *Regulations*]

- Permit Shield -

- (67) In accordance with §5-1015(a)(14) of the *Regulations*, the Facility is granted a "permit shield" and is not subject to the regulations and standards listed in Finding of Fact (F)(b) 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)(14) of the *Regulations*]

- Standard Permit Conditions -

- (68) 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 556a(d)] [40 CFR Part 60.11(d) and 63.6(e)]
- (69) Approval to construct or modify under this Permit shall become invalid if construction or modification is not commenced within eighteen (18) months after issuance of this Permit, if construction or modification is discontinued for a period of eighteen (18) months or more, or if construction is not substantially completed within a reasonable time. The Agency may extend any one of these periods upon a satisfactory showing that an extension is justified. The term "commence" as applied to the proposed construction or modification of a source means that the Permittee either has:
- (a) Begun, or caused to begin, a continuous program of actual on-site construction or modification of the source, to be completed within a reasonable time; or
 - (b) Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the Permittee, to undertake a continuous program of actual on-site construction or modification of the source to be completed within a reasonable time.
- [10 V.S.A. §556(c)] [§5-501 of the *Regulations*]
- (70) 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*]
- (71) Cause for reopening, modification, termination and revocation of this Permit includes, but is not limited to:
- (a) Inclusion of additional applicable requirements pursuant to state or federal law;
 - (b) A determination that the permit contains a material mistake or that inaccurate information was used to establish emissions standards or other terms or conditions of the operating permit;
 - (c) A determination that the operating permit must be modified or revoked to ensure compliance with applicable requirements;
 - (d) A determination that the subject source has failed to comply with a permit

- condition;
- (e) For Title V subject sources, a determination by U.S. EPA that cause exists to terminate, modify, revoke or reissue an operating permit;
 - (f) Those causes which are stated as grounds for refusal to issue, renew or modify an operating permit under §5-1008(a) of the *Regulations*; or
 - (g) If more than three (3) years remain in the permit term and the source becomes subject to a new applicable requirement.

[§5-1008(e)(4) of the *Regulations*]

- (72) The Permittee shall furnish to the Agency, within a reasonable time, any information that the Agency may request in writing to determine whether cause exists to modify, revoke, reissue, or terminate the Permit or to determine compliance with this Permit. Upon request, the Permittee shall also furnish to the Agency copies of records required to be kept by this Permit. [10 V.S.A. §§556(c) and 556a(d)] [§5-402(1) of the *Regulations*] [40 CFR Part 70 §70.6(a)(6)(v)]
- (73) By acceptance of this Permit, the Permittee agrees to allow representatives of the State of Vermont access to the properties covered by the Permit, at reasonable times, to ascertain compliance with Vermont environmental and health statutes and regulations and with this Permit. The Permittee also agrees to give the Agency access to review and copy any records required to be maintained by this Permit, and to sample or monitor at reasonable times to ascertain compliance with this Permit. [10 V.S.A. §§556(c), 556a(d) and 557] [§§5-402(1), 5-404, and 5-1015(a)(10) of the *Regulations*]
- (74) All data, plans, specifications, analyses and other information submitted or caused to be submitted to the Agency as part of the application for this Permit or an amendment to this Permit shall be complete and truthful and, for Title V permit applications, certified by a responsible official whose designation has been approved by the Secretary. Any such submission which is false or misleading shall be sufficient grounds for denial or revocation of this Permit, and may result in a fine and/or imprisonment under the authority of Vermont statutes. [10 V.S.A. §§556(c) and 556a(d)] [§§5-505 and 5-1006(f) of the *Regulations*]
- (75) 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)]
- (76) 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*]
- (77) 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)]
- (78) No person shall build, erect, install or use any article, machine, equipment or other contrivances, the use of which, without resulting in a reduction in the total release of air

contaminants to the atmosphere, reduces or conceals an emission which otherwise would constitute a violation of these *Regulations*. [§5-403 of the *Regulations*]

- (79) 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)]
- (80) 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)]
- (81) 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*]
- (82) 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).
- (83) 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).

- (84) Conditions 1, 2, 3, 4, 8, 9, 13, 32, 33, 38, and 43 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 twelve (12) months before the expiration of the Operating Permit. If a timely and administratively complete application for an operating permit renewal is submitted to the Secretary, but the Secretary has failed to issue or deny such renewal before the end of the term of this Operating Permit, then the Permittee may continue to operate the subject source and all terms and conditions of this Operating Permit shall remain in effect until the Secretary has issued or denied the operating permit renewal. However, this Operating Permit shall automatically expire if, subsequent to the renewal application being determined or deemed administratively complete pursuant to §5-1006 of the *Regulations*, the Permittee fails to submit any additional information required by the Secretary as well as information pertaining to changes to the Facility within thirty (30) days or such other period as specified in writing by the Secretary. [§§5-1011 and 5-1012(a) of the *Regulations*] [§§5-1005(c) and 5-1012 of the *Regulations*]
- (85) The conditions of this Permit as set forth above supersedes all conditions contained in all prior Permits issued by the Agency to the Permittee for this Facility. [10 V.S.A. §556(c) and 556a(d)]

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

Dated this 11 day of May, 2015.

Agency of Natural Resources

David K. Mears, Commissioner
Department of Environmental Conservation

By: Heidi Hales
Heidi Hales, Director
Air Quality & Climate Division

mlg

State of Vermont
Department of Environmental Conservation
Air Quality & Climate Division
Davis Building – 2nd Floor
One National Life Drive
Montpelier, VT 05620-3802
(802) 828-1288
FAX (802) 828-1250

AGENCY OF NATURAL RESOURCES

May 11, 2015

Robert Rice
EHS Manager
Ethan Allen Operations, Inc.
27 Railroad Avenue
Orleans, VT 05860

RE: Final—Air Pollution Control Permit to Construct and Operate (#AOP-04-004)
Ethan Allen Orleans

Dear Mr. Rice:

The Vermont Agency of Natural Resources (ANR) Department of Environmental Conservation (DEC) Air Quality & Climate Division (Agency) has reviewed Ethan Allen's application for modifications to the facility, including new spray booths and fuel oil firing capability, and for the initial Title V Permit to Operate the wood furniture manufacturing facility located at 27 Railroad Avenue in the village of Orleans and town of Barton, Vermont. The Agency is now issuing a final Air Pollution Control Permit to Construct and Operate approving the proposed project and Facility.

Consistent with the provisions of 10 V.S.A. §556(e) and for the purposes of reducing the administrative burden of enforcing two separate permits for this Facility, the Agency is incorporating the existing Permit to Construct requirements contained in the prior Air Pollution Control Permit to Construct (#AP-92-024E) previously issued on 08/08/2001 with the current initial Title V Air Pollution Control Permit to Operate. The result is a combined Air Pollution Control Permit to Construct and Operate which satisfies both the construction permit (10 V.S.A. §556 and Subchapter V of the Regulations) and operating permit (10 V.S.A. §556a and Subchapter X of the Regulations) requirements for your Facility. This combined permit incorporates and supersedes all prior Permit to Construct and/or Operate approvals issued in the past. Please note this permit is valid for a period of five (5) years and an application to renew the permit must be filed at least twelve (12) months prior to the date of expiration.

Please review this Permit carefully to ensure that you are currently, and continue to be, in compliance with all the requirements contained in this Permit. There are a few key points included in this permit or that you may otherwise be subject to that I would like to highlight for your convenience:

- Fuel oil sulfur: Consistent with New England regional efforts, Vermont has adopted regulations that will be lowering the allowed sulfur content of fuels oils between the years 2014 and 2018. Commencing on July 1, 2014, the sulfur content of No.2 and lighter distillate oils purchased shall not exceed 0.05 percent by weight and commencing July 1, 2018 such oils shall not exceed 0.0015 percent by weight (15 ppm). Distillate fuel oils meeting the 0.0015% by weight sulfur limit are commonly referred to as ultra-low sulfur diesel (ULSD). Commencing on July 1, 2018, the sulfur content of No.4 residual oil and No.5/No.6 residual fuel oil purchased shall not exceed 0.25 percent and 0.5 percent by weight, respectively. To the extent your permit may currently allow higher sulfur content fuel oils, this regulation will take precedence and further restrict



your sulfur content on the respective dates. The Permit also requires obtaining a certification or invoice regarding the sulfur content of the fuel oil from the fuel supplier, for each shipment of fuel oil received at the Facility. Please note that the allowable emissions of SO₂ was reduced and is now based on the allowed fuel usage (e.g., 155,000 gallons of No. 4 fuel oil).

- Diesel engines: The federal U.S. EPA has recently adopted or amended two regulations that may apply to the diesel engines at your facility (e.g., diesel-powered fire pump). These two regulations are 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR Part 63 Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The following is a summary of the requirements for these engines. Please consult the actual regulations for the specific requirements. For further information please see the EPA's website: <http://www.epa.gov/ttn/atw/icengines/>.
 1. New engines of approximately 2006 and newer model year are subject to the 4I rule (e.g., IIII) and must be certified by the manufacturer to meet the respective Tier emission limit, even if used only for emergency purposes.
 2. Older engines are subject to the 4Z rule (e.g., ZZZZ) and may need to be fitted with a catalyst and conduct emission testing. The compliance date was May 3, 2013. Engines less than 300 bhp and engines used only for emergency purposes are instead subject to maintenance requirements.
 3. All engines, with few exceptions, are restricted to use of ULSD fuel.
 4. The definition of emergency is very important for these regulations and does not include most peak shaving programs.
 5. The facility must maintain and operate the engine according to the manufacturer's written recommendations for the life of the engine.
 6. The rule also requires you to file various notifications directly with EPA.

- Oil and biomass (wood) boilers: The federal U.S. EPA has recently adopted and amended a regulation that applies to any oil or wood boilers at your facility. This regulation is 40 CFR Part 63 Subpart JJJJJ National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers. The State of Vermont is authorized to enforce this regulation for Title V permits. The following is informational summary of what is required. Please consult the actual regulation for the specific requirements. For further information please see the EPA's website: <http://www.epa.gov/boilercompliance/>.
 1. Boilers fired exclusively with natural gas or propane are not subject. Such boilers are allowed backup fuel oil usage during gas curtailments and up to 48 hours of elective operation per year and still maintain their exemption. Oil fired units less than 1.6 MMBTU/hr are also exempt.
 2. Boilers installed after June 4, 2010 are subject to the new boiler requirements. Older boilers are subject to the existing boiler requirements.
 3. The rule requires a tune-up for each subject 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. The initial tune-up was required to be completed by March 21, 2014.
 4. For facilities with at least one existing boiler rated at 10 MMBTU/hr heat input or greater, the facility was required to conduct a one-time energy assessment audit of the facility by March 21, 2014.
 5. New biomass (wood) boilers rated at 10 MMBTU/hr heat input or greater have additional requirements including PM emission limits, stack testing every three years and minimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures. If the initial PM emission test demonstrates your affected boiler has a PM emission rate that is equal to or less than half the emission limit, then you will not need to perform subsequent PM emission tests on this boiler.
 6. New oil boilers rated at 10 MMBTU/hr heat input or greater have additional requirements including PM emission limits and minimize the boiler's startup and shutdown periods following

the manufacturer's recommended procedures. If your oil boiler burns fuel oil with a sulfur content of greater than 0.5%, then you must conduct stack testing every three years. If the initial PM emission test demonstrates your affected boiler has a PM emission rate that is equal to or less than half the emission limit, then you will not need to perform subsequent PM emission tests on this boiler.

7. The rule also requires you to file various notifications directly with EPA including an initial notification and periodic certifications of compliance.
- Spray coating operations: The federal U.S. EPA adopted a regulation that applies to spray coating operations that apply any coatings that contain 0.1% by weight or more of hexavalent chromium (Cr+6), lead (Pb), nickel (Ni), or cadmium (Cd) compounds or that contain 1.0% or more of chromium (Cr) or manganese (Mn) compounds. This regulations is 40 CFR Part 63 Subpart HHHHHH National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources. The following is an informational summary of the requirements. Please consult the actual regulation for the specific requirements. For further information please see the EPA's website: <http://www.epa.gov/ttn/atw/6h/6hpg.html> The requirements include spray booth filter efficiency standards, spray gun transfer efficiency standards, spray painter training certifications, and recordkeeping requirements. The compliance date was January 11, 2010. 7. The rule also required you to file various notifications directly with EPA.

If you have any questions or comments, please feel free to contact me by phone at (802) 377-2800, by email at martin.gildea@state.vt.us, or in writing at the above address.

Sincerely,

Martin Gildea

Digitally signed by Martin Gildea
DN: cn=Martin Gildea, o=Agency of Natural
Resources, ou=State of Vermont,
email=martin.gildea@state.vt.us, c=US
Date: 2015.05.07 14:44:19 -04'00'

Martin Gildea, Environmental Engineer
Engineering Services/Permitting Section
Air Quality & Climate Division

cc: Doug Elliott

A2 Ethan Allen-Orleans, VT