



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

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**Pride Manufacturing Company, LLC
Waldo County
Burnham, Maine
A-306-71-L-R/M (SM)**

**Departmental
Findings of Fact and Order
Air Emission License
Renewal/Minor Revision**

FINDINGS OF FACT

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

Pride Manufacturing Company, LLC (Pride) has applied to renew their Air Emission License permitting the operation of emission sources associated with their wood products facility.

This license also contains a minor revision to address Reasonably Available Control Technology (RACT) for Volatile Organic Compounds (VOC), as required for 06-096 CMR 134. Also included in this minor revision is a fuel change in Boiler 1 from previously licensed No. 2 fuel oil to ultra-low sulfur diesel fuel that is now being used.

The equipment addressed in this license is located at 10 North Main Street in Burnham, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

Boilers

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Const./ Install. Date</u>	<u>Post Combustion Cntrl Equip.</u>	<u>Stack #</u>
Boiler 1	20.9	140 gal/hr	Diesel Fuel, 0.0015% S	1972	N/A	1
Boiler 2	20.9	*2,639 lb/hr	Wood (kiln dried shavings)	1972	Cyclone	2

* Based on 7,920 BTU per pound of wood

Process Equipment

<u>Equipment</u>	<u>Production Rate</u>	<u>Pollution Control Equipment</u>	<u>Stack #</u>
Wood Chipper	Varies	Size 26 cyclones	3
Bark Hog	Varies	Size 20 cyclones	4
Tool Grinding Room (bench & profile grinders)	Varies	2, 55-gallon drum cyclones	Inside collector
Saw Filing Room (band & round saw grinders)	Varies	N/A	9
Paint Tumblers (11 large units)	Varies	N/A	10-20
Paint Tumblers (4 small units)	Varies	N/A	21
Paint Dryers (14)	1 load/shift	N/A	22-35
Lumber Kilns (7)	Varies	N/A	36-42
System Line Equipment:		Carter Day Baghouses #1 and #2	5 & 6
Molders	Varies		
Trim Saws	5 million board feet (each)		
Tumble Sanders	Varies		
Hand Sanders	Varies		
Tee Lathes	Varies		
Peg Lathes	Varies		
Fergusons	Varies		

C. Application Classification

The application for Pride does not include the licensing of increased emissions of any pollutant. Therefore, the license is considered to be a minor revision and a renewal and has been processed as such through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). With the fuel limits on Boilers 1 and 2, the throughput limit on the Drying Kilns and the VOC limits associated with the Finishing Operations, the

facility is licensed below the major source thresholds for criteria pollutants and is considered a synthetic minor. With the HAP limits associated the Finishing Operations, the facility is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. VOC RACT

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT), 06-096 CMR 134 (as amended) is applicable to sources that have the potential to emit facility wide quantities of VOC equal to or greater than 40 tons/year, except from specifically exempted equipment or processes according to the rule. Pride operates the following air emission units which are subject to 06-096 CMR 134:

- Drying Kilns
- Finishing Operations

Pursuant to 06-096 CMR 134(1)(C)(4), Boilers #1 and #2 are exempted VOC-emitting equipment due to the VOCs being emitted from the incomplete combustion of material.

1. Drying Kilns

VOC emissions, such as methanol, terpenes, pinenes, etc., are released from the Drying Kilns as a result of the heat that is supplied to the drying of the lumber.

Pride is currently licensed to an annual throughput of 8.5 million board feet (MMBF) based on a 12-month rolling total. Based on the annual throughput limit, combined with the emission factors of the wood species being dried, Pride has an estimated maximum potential VOC emission of 5.5 annual tons per year. This value of 5.5 tons per year of VOC, compared to the 06-096 CMR 134 annual facility VOC threshold of 40 tons per year, is considered a relatively small amount.

Given that the VOC emissions are generated from the naturally occurring organic compounds in the wood, there are no pollution prevention options available to Pride for consideration.

Therefore, the control of VOC emission from the Drying Kilns by limiting the annual throughput in the kilns, resulting in a relatively small amount of emissions, is determined to be meeting VOC RACT. The Department has determined that additional VOC controls for the Drying Kilns are not technically or economically feasible at this time.

2. Finishing Operations

VOC emissions are released from the Finishing Operations, including the paint tumblers and paint dryers, as a result of the coatings that are used on the facility's wood products. The VOC emissions generated from the Finishing Operations are based on the quantity of the coatings used and the coatings respective material safety data sheets (MSDS) data for percent volatility or VOC content (in pounds per gallon); and the assumption that all volatile components in the finish are emitted as VOC vapor.

License A-306-71-J-R (dated December 11, 2007) set a license limit of 39.9 tons per year of VOC emissions from the Finishing Operations, based on a 12-month rolling total; as well as established best practical treatment (BPT) practices. BPT for the Finishing Operations include good housekeeping practices, including covering paint storage containers with air-tight lids when not in use, and actively evaluating the products, processes and procedures at the facility to reduce emissions. By this, Pride is actively pursuing the use of water-based coatings when feasible to replace or minimize the use of enamel paints, and mineral spirits and thinners. Also in place at the facility are preheaters to some of the process painting equipment, which heats paints and

allows them to flow more easily, thereby requiring less mineral spirits and thinners, which is considered BPT.

The Department has determined that the addition of VOC control equipment on the processes throughout the Finishing Operations is both technically and economically unfeasible.

Therefore, based on limiting the VOC emissions to 39.9 tons per year and the use of BPT practices, it is determined that the Finishing Operations is meeting VOC RACT.

C. Boiler 1

Pride operates Boiler 1 primarily to provide heat for the lumber kilns. Boiler 1 was previously licensed to fire No. 2 fuel oil, but now fires ultra-low sulfur diesel fuel. The ultra-low sulfur diesel fuel is from the same tank that fuels the vehicles used in their yard. The boiler is rated at 20.9 MMBtu/hour and was manufactured and installed in 1972. Boiler 1 exhausts to Stack #1 with an above ground level (AGL) height of 25 feet and an inside diameter of 2 feet.

Due to the year of installation, Boiler 1 is not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

1. BPT/BACT Findings

The BPT/BACT emission limits for the boiler were based on the following:

Diesel Fuel

- PM/PM₁₀ – 0.20 lb/MMBtu based on 06-096 CMR 103
- SO₂ – Combustion of diesel fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur)
- NO_x – 20 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10
- CO – 5 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10
- VOC – 0.2 lb/1000 gal based on AP-42, Table 1.3-3, dated 5/10
- Opacity – 06-096 CMR 101

The BPT/BACT emission limits for the boiler are the following:

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Boiler 1	4.18	4.18	0.03	3.05	0.76	0.03

Visible emissions from Stack #1 (serving Boiler 1) shall not exceed 20% opacity on a 6-minute block average, except for no more than one (1) six (6) minute block average in a 3-hour period.

Pride shall be limited to 208,467 gallons (28,560 MMBtu) per year of diesel fuel based on a 12-month rolling total basis.

2. Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation shall include the type of fuel used and sulfur content of the fuel.

D. Boiler 2

Pride operates Boiler 2 primarily to provide heat for the lumber kilns. The boiler is rated at 20.9 MMBtu/hr and fires wood (kiln dried shavings). Boiler 2 was manufactured and installed in 1972. Emissions from the boiler pass through a cyclone and exhausts to Stack #2 with an above ground level (AGL) height of 25 feet and inside diameter of 1.7 feet.

Due to the year of installation of Boiler 2, it is not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

1. BPT Findings

The BPT emission limits for Boiler 2 were based on the following:

Wood

- PM/PM₁₀ – 0.30 lb/MMBtu based on AP-42, Table 1.6-1, dated 9/03
- SO₂ – 0.025 lb/MMBtu based on AP-42, Table 1.6-2, dated 9/03
- NO_x – 0.49 lb/MMBtu based on AP-42, Table 1.6-2, dated 9/03
- CO – 0.60 lb/MMBtu based on AP-42, Table 1.6-2, dated 9/03
- VOC – 0.017 lb/MMBtu based on AP-42, Table 1.6-3, dated 9/03
- Opacity – 06-096 CMR 101

The BPT emission limits for the boiler are the following:

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Boiler 2	6.27	6.27	0.52	10.24	12.54	0.36

Visible emissions from Stack #2 (serving Boiler 2) shall not exceed 30% opacity on a 6-minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period.

Pride shall be limited to 114,750 MMBtu/year of wood (equivalent to 7,920 tons at 12% moisture) based on a 12-month rolling total.

2. Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation shall include the quantity and type of fuel used.

E. 40 CFR Part 63 Subpart JJJJJ

Boilers 1 and 2 are subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ). Boiler 1 is considered an existing oil boiler and Boiler 2 is considered an existing biomass-fired boiler.

A summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJ requirements is listed below. At this time, the Department has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however Pride is still subject to the requirements. Notification forms and additional rule information can be found on the following website:

<http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

1. Compliance Dates, Notifications, and Work Practice Requirements

a. Initial Notification of Compliance

An Initial Notification submittal to EPA was due January 20, 2014.
[40 CFR Part 63.11225(a)(2)]

b. Boiler Tune-Up Program

(i) A boiler tune-up program shall be implemented to include the initial tune-up of the applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]

(ii) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]
 2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
 3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
 4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
 5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
 6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
- (iii) After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]
- (iv) The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report (called a Notification of Compliance Status) has been submitted.
1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years
<i>New and Existing Oil, Biomass, and Coal fired Boilers with less frequent tune up requirements</i>	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
With a heat input capacity of <5MMBtu/hr	Every 5 years
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

c. Energy Assessment

Boilers 1 and 2 are each subject to the energy assessment requirement as follows:

- (i) A one-time energy assessment shall be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]
- (ii) The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating

constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

[40 CFR Part 63, Table 2(4)]

(iii) A Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]

2. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

Note: EPA will require submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [63.1125(a)(4)(vi)]

F. Process Equipment:

1. Wood Handling

The sawmill and debarker areas at Pride are serviced by two cyclones. Exhausts from one of the process equipment units vents through the roof while the other unit exhausts through a vent on the wall. The wood from the sawmill is processed and sent to a cyclone. The saw dust generated is then either collected in trailers and sold, or used for fuel in Boiler 2. The use of the cyclones as a control device for particulate matter (PM) represents BPT for both the sawmill and debarker locations at the facility.

Baghouses are also utilized at Pride for the collection of PM from trim saws, dowel molders, lathes, sanders and other wood processing activities on the system lines. The use of baghouses to control PM emissions on their system lines represents BPT. Visible emissions from each baghouse shall not exceed an opacity of 10% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. The facility shall take corrective action if visible emissions from the baghouses exceed five (5) percent opacity.

2. Wood Drying Kilns

Pride operates seven kilns for drying hardwood lumber. Heat, in the form of steam, for the kilns is provided by either Boiler 1 or Boiler 2. A summary of BPT for the drying kilns is the following:

- a. Pride shall not exceed a combined yearly throughput in the kilns of 8.5 million board feet (MMBF) based on a 12-month rolling total.
- b. Pride shall keep monthly records of board feet processed.

With the established licensed throughput limit of 8.5 MMBF/year and using an emission factor of 1.283 pounds of VOC released in the kiln drying process for every 1,000 BF dried for hardwood species, Pride is restricted to an annual VOC emission limit from kiln operations of no greater than 5.5 tons of VOC per year based on a 12-month rolling total.

3. Wood Finishing

Pride operates a series of processes, including the use of small and large paint tumblers and paint dryers, to apply coatings to their wood products. There are four (4) small paint tumblers, eleven (11) large paint tumblers and fourteen (14) paint dryers. BPT for all the wood painting and finishing processes shall be good housekeeping practices, including covering paint storage containers with air-tight lids when not in use, and actively evaluating the products, processes and procedures at the facility to reduce emissions. For example, Pride shall actively pursue the use of water-based coatings when feasible to replace or minimize the use of enamel paints, and mineral spirits and thinners. Also in place at the facility are preheaters to some of the process painting equipment, which heats paints and allows them to flow more easily, thereby requiring less mineral spirits and thinners, which is considered BPT.

In addition, BPT for the eleven (11) large paint tumblers in use at Pride for the control of particulate matter (PM) includes the use of fiberglass filters installed in the exhaust ductwork of each of the large tumblers. The fiberglass

filters reduce the emissions of PM from this process. PM emissions from the wood finishing process are unquantifiable.

The VOC emissions generated from the Finishing Operations are based on the quantity of the coatings used and the coatings respective material safety data sheets (MSDS) data for percent volatility or VOC content (in pounds per gallon); and the assumption that all volatile components in the finish are emitted as VOC vapor. License A-306-71-J-R (dated December 11, 2007) set a license limit of 39.9 tons/year of VOC emissions from the finishing processes, based on a 12-month rolling total. This licensed limit was established so that Pride would remain under the 40 tons/year of VOC emissions threshold of being subject to 06-096 CMR 134, *Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds* (VOC RACT). However, at the time of the issuance of License A-306-71-J-R, Pride did not account for the VOC emissions released from the Drying Kilns. Therefore, this license addresses VOC RACT for the Finishing Operations, as well as for the Drying Kilns. Therefore, the facility shall remain limited to a maximum of 39.9 tons per year of VOC emissions in the Wood Finishing Operations.

Emissions of HAPs from the Wood Finishing Operations shall be limited to 8.0 tons per year of total HAPs, based on a 12-month rolling total basis, as was licensed in A-306-71-J-R (dated December 11, 2007).

4. Metal Working

In service at Pride are eleven (11) stations where metal shaping and cutting equipment is serviced. These stations are located in what is known as the Tool Grinding Room. Each service station is equipped with an air intake that flows into two cyclones that are vented through the side of the building. The cyclones also service any filing occurring in the Saw Filing Room.

The use of cyclones represents BPT for all grinding, shaping, cutting and filing operations within the Grinding and Filing rooms.

5. Parts Washers

Pride also operates two parts washer stations from which very small quantities of VOCs are emitted. The total quantity of VOCs emitted from the cleaning stations is assumed to be less than 1 ton/year; therefore the cleaning stations are considered insignificant activity as defined in 06-096 CMR 115, Appendix B.B.1. Although the emissions from the parts washers are considered insignificant based on the amount of VOCs emitted, they are still subject to the operational standards found in *Solvent Cleaners*, 06-096 CMR 130 and records shall be kept documenting compliance. The parts washers have a

design capacity of 16 and 30 gallons and both units use a Naptha solvent. BPT for the parts washers also includes keeping records for each unit of the solvent added and removed.

G. Record Keeping

As part of BPT for VOCs and HAPs control, Pride shall maintain and make available upon request a current list of all materials in use, including all coatings used in the tumbling and finishing processes. This list shall provide the necessary data to determine compliance, including the following:

- a) The amount and type of each material used on a monthly basis.
- b) The VOC and HAP contents of each material on a percent by weight basis or pounds per gallon (lbs/gal) basis.

The monthly totals of VOCs and HAPs shall be calculated and tracked by Pride on a monthly and 12-month rolling total basis.

H. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

I. General Process Emissions

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

J. Annual Emissions

1. Total Annual Emissions

Pride shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits for were calculated based on 208,467 gallons per year of diesel fuel in Boiler 1, on 114,750 MMBtu per year of wood in Boiler 2 and on an annual throughput of 8.5 MMBF in the Drying Kilns:

Total Licensed Annual Emissions for the Facility
Tons/year
 (used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	Total HAP
Boiler 1	2.9	2.9	0.1	2.1	0.5	0.1	-
Boiler 2	17.2	17.2	1.4	28.1	34.4	1.0	-
Drying Kilns	-	-	-	-	-	5.5	-
Finishing	-	-	-	-	-	39.9	8.0
Total TPY	20.1	20.1	1.5	30.2	34.9	46.5	8.0

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

Based on the facility's fuel use limits, the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, Pride is below the major source threshold of 100,000 tons of CO₂e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source shall be determined by the Department on a case-by case basis. In accordance with 06-096 CMR 115, an ambient air quality impact analysis is not required for a minor source if the total emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

The total facility licensed emissions are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-306-71-L-R/M subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]

- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 2. pursuant to any other requirement of this license to perform stack testing.

- B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.
[06-096 CMR 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
[06-096 CMR 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
[06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods,

at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) Boiler 1

A. Fuel

1. Total fuel use for Boiler 1 shall not exceed 208,467 gallons per year of diesel fuel with a sulfur content of 0.0015%, by weight, based on a 12-month rolling total basis. [06-096 CMR 115, BACT]
2. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler 1	PM	0.20	06-096 CMR 103(2)(A)(1)

C. Emissions shall not exceed the following [06-096 CMR 115, BACT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler 1	4.18	4.18	0.03	3.05	0.76	0.03

D. Visible emissions from Stack #1 (serving Boiler 1) shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(17) Boiler 2

A. Fuel

1. Boiler 2 is licensed to fire wood with an average 12% moisture content and a heat content of 7,920 Btu/lb (or equivalent). [06-096 CMR 115, BPT]
2. Boiler 2 shall not exceed a heat input of 114,750 MMBtu/year (7,244 tons per year of wood at 12% moisture) based on a 12-month rolling total. [06-096 CMR 115, BPT]

3. Compliance shall be demonstrated by fuel records showing the quantity and type of fuel used. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BPT]

B. Pride shall continuously use the cyclone to control particulate matter when operating Boiler 2. [06-096 CMR 115, BPT]

C. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler 2	PM	0.30	06-096 CMR 103(2)(B)(4)(a)

D. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler 2	6.27	6.27	0.52	10.24	12.54	0.36

E. Visible Emissions from Stack #2 (serving Boiler 2) shall not exceed 30% opacity on a 6-minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period. [06-096 CMR 101]

(18) **40 CFR Part 63, Subpart JJJJJJ** [incorporated under 06-096 CMR 115, BACT]

A. An Initial Notification submittal to EPA was due January 20, 2014. [40 CFR Part 63.11225(a)(2)]

B. A boiler tune-up program shall be implemented to include the initial tune-up of applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]

C. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]

2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]

3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
 4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
 5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
 6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
- D. After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]
- E. The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report (called a Notification of Compliance Status) has been submitted.
1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years
<i>New and Existing Oil, Biomass, and Coal fired Boilers with less frequent tune up requirements</i>	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
With a heat input capacity of <5MMBtu/hr	Every 5 years
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

F. Energy Assessment

1. A one-time energy assessment shall be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]
2. The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
[40 CFR Part 63, Table 2(4)]
3. A Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]

- G. Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during

periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

(19) Drying Kilns

- A. Pride shall not exceed a combined yearly throughput in the Drying Kilns of 8.5 million board feet (MMBF) based on a 12-month rolling total. [06-096 CMR 115, BPT.]
- B. Pride shall maintain records indicating the quantity of wood dried in MMBF and VOC emissions. VOC emissions shall be calculated using an emission factor of 1.283 pounds of VOC per 1,000 BF. The Drying Kiln records shall be maintained on a monthly and a 12-month rolling total basis. [06-096 CMR 115, BPT]

(20) Finishing Processes

- A. Pride shall use water-based coatings when feasible. [06-096 CMR 115, BPT]
- B. Pride shall use paint pre-heaters to allow the coatings to flow more easily. [06-096 CMR 115, BPT]
- C. Pride shall use fiberglass filters installed in the exhaust ductwork of each of the eleven large tumblers. [06-096 CMR 115, BPT]
- D. All solvent-based coating storage containers shall remain closed at all times with air-tight lids when not in use to reduce fugitive VOC and HAP emissions. [06-096 CMR 115, BPT]
- E. Pride shall limit total HAP emissions to 8.0 TPY and VOC emissions to 39.9 TPY (all based on a 12-month rolling total), based on chemical purchases as specified in Condition (20)(F) and calculations and emission factors as determined in accordance with Condition (20)(F). [06-096 CMR 115, BPT]
- F. To ensure compliance with annual emission limits, Pride shall record on a monthly basis, the quantity of raw materials purchased and in stock which contain VOC and HAPs. Pride shall also maintain records of the content on a percent VOC and HAP by weight basis for each material or the pounds VOC and HAP per gallon of each material. Monthly inventory data shall be used to determine the quantity of each material used per month. The following equations shall be used to calculate VOC and HAP emissions on a monthly and 12-month rolling total basis [06-096 CMR 115, BPT]:

Total VOCs

$$\text{Emissions} = \sum_{i=1}^n \left[\left(\begin{array}{l} \text{Quantity in stock at beginning of the month} \\ - \text{Quantity in stock at the end of the month} \\ + \text{Monthly product purchases} \end{array} \right) \times \text{VOC content} \right]$$

Where:

n = the number of different coatings in stock at the facility

Total HAPs

$$\text{Emissions} = \sum_{i=1}^n \left[\left(\begin{array}{l} \text{Quantity in stock at beginning of the month} \\ - \text{Quantity in stock at the end of the month} \\ + \text{Monthly product purchases} \end{array} \right) \times \text{HAP content} \right]$$

Where:

n = the number of different coatings in stock at the facility

(21) **Parts Washer**

Parts washers at Pride are subject to *Solvent Cleaners*, 06-096 CMR 130 (as amended).

- A. Pride shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]
- B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:
 1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
 2. Wipe cleaning; and,
 3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
- C. The following standards apply to cold cleaning machines that are applicable sources under Chapter 130.
 1. Pride shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
 - (i) Waste solvent shall be collected and stored in closed containers.
 - (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
 - (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a

pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.

- (iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
 - (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
 - (vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
 - (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
 - (viii) Work area fans shall not blow across the opening of the degreaser unit.
 - (ix) The solvent level shall not exceed the fill line.
2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

(22) Baghouse Emissions

Visible emissions from baghouses shall not exceed an opacity of 10% on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. The facility shall take corrective action if visible emissions from the baghouses exceed 5% opacity. [06-096 CMR 101]

(23) Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(24) General Process Sources

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

Pride Manufacturing Company, LLC
Waldo County
Burnham, Maine
A-306-71-L-R/M (SM)

25

Departmental
Findings of Fact and Order
Air Emission License
Renewal/Minor Revision

(25) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of either:

- 1) A computer program and accompanying instructions supplied by the Department; or
- 2) A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted as specified by the date in 06-096 CMR 137.

- (26) Pride shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 20 DAY OF March, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Corne for
PATRICIA W. AHO, COMMISSIONER

The term of this license shall be ten (10) years from the signature date above.

[Note: If a complete renewal application, as determined by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 MRSA §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the renewal of the license.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 08/16/2012

Date of application acceptance: 08/16/2012

Date filed with the Board of Environmental Protection:

This Order prepared by Allison M. Hazard, Bureau of Air Quality.

