



DEPARTMENT ORDER

Duratherm Window Corporation
Kennebec County
Vassalboro, Maine
A-1133-71-A-N

Departmental
Findings of Fact and Order
Air Emission License

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

Duratherm Window Corporation (Duratherm) has applied for an Air Emission License for the operation of emission sources associated with their custom wood window and door manufacturing facility.

The equipment addressed in this license is located at 720 Main Street, Vassalboro, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Process Equipment

Equipment	Production Rate	Pollution Control Equipment	Stack #
Woodworking Equipment	31,000 acfm (exhaust)	Cyclone	1
Paint Booth #1	16 ounces/min.	Fabric Filter	2

Duratherm also has three biomass-fired heaters each with a maximum heat input less than 1.0 MMBtu/hr. These units are considered insignificant activities per Appendix B of *Major and Minor Source Air Emission License Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 115. Although considered insignificant activities, these units are still subject to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101.

C. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

A new source is considered a major source based on whether or not total licensed annual emissions exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 C.M.R. ch. 100.

<u>Pollutant</u>	<u>Total Licensed Annual Emissions (TPY)</u>	<u>Significant Emission Levels</u>
PM	---	100
PM ₁₀	---	100
SO ₂	---	100
NO _x	---	100
CO	---	100
VOC	24.9	50
CO _{2e}	< 100,000	100,000

The Department has determined the facility is a minor source and the application has been processed through 06-096 C.M.R. ch. 115.

D. Facility Classification

With the annual facility-wide volatile organic compound (VOC) and hazardous air pollutant (HAP) limits, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because the licensed emissions are below the major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for 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 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

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 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Process Description

Duratherm is a custom manufacturer of luxury wood windows and doors. At the beginning of the manufacturing process, the facility receives cut and dried wood of varied types including, but not limited to, teak, mahogany, and cherry, as well as pre-cut glass panes. Once received, the wood is further cut, shaped, and planed to customer-determined specifications and then matched to the pre-cut glass panes ordered for the specific window or door on order. Once assembled, the window and door assemblies are then moved into a spray booth where they are taped and painted and/or coated before being packaged and shipped to the final user.

C. State and Federal Requirements Review (Process Sources)

1. *Surface Coating Facilities*, 06-096 C.M.R. ch. 129

Duratherm is not subject to *Surface Coating Facilities*, 06-096 C.M.R. ch. 129. The facility does not engage in any of the applicable surface coating categories. Should the facility ever engage in any of the applicable surface coating categories in the future, Duratherm shall maintain records of VOC emissions originating from those source categories and comply with all applicable requirements of 06-096 C.M.R. ch. 129. [06-096 C.M.R. ch. 129, §§ 1.A. & 1.C.]

2. *Control of Volatile Organic Compounds from Adhesives and Sealants*, 06-096 C.M.R. ch. 159

Duratherm is subject to *Control of Volatile Organic Compounds from Adhesives and Sealants*, 06-096 C.M.R. ch. 159. The facility uses or applies adhesive, sealant, adhesive primer, or sealant primer for compensation within Maine. [06-096 C.M.R. ch. 159, § 1.A.(2)]

The requirements of 06-096 C.M.R. ch. 159 applicable to Duratherm include, but are not necessarily limited to, the following:

a. VOC Limits

- (1) Duratherm shall not use any adhesive, sealant, adhesive primer, or sealant primer with VOC contents above the levels provided in Table 1 of 06-096 C.M.R. ch. 159. [06-096 C.M.R. ch. 159, § 2.B.]

- (2) The VOC content limits in Table 1 for adhesives applied to particular substrates shall apply as follows [06-096 C.M.R. ch. 159, § 2.C.]:
 - (i) If an operator uses an adhesive or sealant subject to a specific VOC content limit for such adhesive or sealant in Table 1, such specific limit is applicable rather than an adhesive-to-substrate limit; and
 - (ii) If an adhesive is used to bond dissimilar substrates together, the applicable substrate category with the highest VOC content shall be the limit for such use.
- (3) Duratherm may choose to comply with the VOC limits in Table 1 by using add-on air pollution control equipment meeting the specifications provided in the rule. [06-096 C.M.R. ch. 159, § 2.E.]
- b. Duratherm shall store or dispose of all absorbent materials, such as cloth or paper, which are moistened with adhesives, sealants, primers, or solvents subject to this rule, in non-absorbent containers that shall be closed except when placing materials in or removing materials from the container. [06-096 C.M.R. ch. 159, § 2.F.]
- c. Duratherm shall not require the use or specify the application of any adhesive, sealant, adhesive primer, sealant primer, surface preparation, or clean-up solvent if such use or application results in a violation of the provisions of this rule. The prohibition of this section shall apply to all written or oral contracts under which any adhesive, sealant, adhesive primer, sealant primer, surface preparation, or clean-up solvent subject to this rule is to be used at any location in Maine. [06-096 C.M.R. ch. 159, § 2.G.]
- d. The following compounds are exempt from the requirements of this rule [06-096 C.M.R. ch. 159, § 3.A.]:
 - (1) Adhesives and sealants that contain less than 20 grams of VOC per liter of adhesive or sealant, less water and less exempt compounds, as applied;
 - (2) Cyanoacrylate adhesives;
 - (3) Adhesives, sealants, adhesive primers, or sealant primers that are sold or supplied by the manufacturer or supplier in containers with a net volume of 16 fluid ounces or less, or a net weight of one pound or less, except plastic cement welding adhesives and contact adhesives;
 - (4) Contact adhesives that are sold or supplied by the manufacturer or supplier in containers with a net volume of one gallon or less; and
 - (5) Adhesives and sealants that are applied in a dry, powdered form and activated without the use of solvent.

- e. Duratherm shall maintain the following records [06-096 C.M.R. ch. 159, § 4.A.]:
 - (1) A list of each adhesive, sealant, adhesive primer, sealant primer, clean-up solvent, and surface preparation solvent in use and in storage;
 - (2) A data sheet or material list which provides the material name, manufacturer identification, and material application;
 - (3) Catalysts, reducers, or other components used in the mix ratio;
 - (4) The VOC content of each product as applied;
 - (5) The final VOC content or vapor pressure, as applied; and
 - (6) The annual volume of each adhesive, sealant, adhesive primer, sealant primer, clean-up solvent, and surface preparation solvent used or purchased.
- f. All records shall be maintained for five years and shall be made available to the Department within 90 days of a request. [06-096 C.M.R. ch. 159, § 4.C.]

D. BACT for Process Equipment

Process equipment at Duratherm includes Woodworking Equipment used to cut, grind, buff, and sand wood, and a paint booth, Paint Booth #1, used for the painting and/or coating of window and door assemblies. The primary pollutants emitted from these processes are particulate matter (PM) and volatile organic compounds (VOC). The BACT requirements pertaining to the process equipment are discussed below.

1. BACT for PM Emissions from Paint Booth #1 and the Woodworking Equipment

a. PM Emissions from Paint Booth #1

To control PM emissions from over-spray during the application of painting and coating operations in Paint Booth #1, Duratherm has installed fabric filters on the paint booth exhaust points. PM and PM₁₀ emissions from filter systems such as this are generally unquantifiable; therefore, BACT for PM and PM₁₀ emissions from Paint Booth #1 shall be the use of fabric exhaust filters, proper maintenance of the filters, records of all repair and maintenance completed on the filters, and the following visible emissions limit:

Visible emissions from the Paint Booth #1 exhaust shall not exceed 10% opacity on a six-minute block average basis.

b. PM Emissions from the Woodworking Equipment

Fugitive PM emissions from the Woodworking Equipment are generated from the cutting, grinding, buffing, and sanding of wood used in the fabrication of windows and doors. For control of PM and PM₁₀ emissions from the Woodworking Equipment, Duratherm utilizes a dust collection system that conveys captured sawdust from all Woodworking Equipment to a central cyclone. Use of a dust

collection system and cyclone is traditionally considered BACT for PM emissions from this size and type of application; therefore, BACT for PM and PM₁₀ emissions from the Woodworking Equipment shall be the use of the Woodworking Equipment cyclone and dust collection system, proper maintenance of the cyclone and dust collection system, records of all maintenance and repairs completed on the cyclone and dust collection system, and the following visible emissions limit:

Visible emissions from the Woodworking Equipment cyclone shall not exceed 10% opacity on a six-minute block average basis.

2. BACT for VOC & HAP Emissions from all Process Sources

VOC and HAP emissions from painting, coating, adhesive, and sealant operations are attributed to evaporation of material over-spray and vaporization from the applied material prior to completion of the curing process. The maximum potential VOC and HAP emissions from painting, coating, adhesive, and sealant operations are a function of the potential quantity of material applied and the VOC and/or HAP content of the material as a percentage of the paint or coating, by weight.

In order for Duratherm to remain a minor source of criteria pollutants and an area source of HAP, Duratherm shall limit facility-wide VOC emissions to no more than 24.9 tons per year and facility-wide total HAP emissions to no more than 9.9 tons per year, each on a calendar year total basis. To demonstrate compliance with these limits, Duratherm shall maintain and make available upon request a current list of all paints, coatings, adhesives, sealants, and cleaning materials in use. This list shall provide the necessary data to determine compliance including, but not necessarily limited to, the following:

- Names and types of all paints, coatings, adhesives, sealants, and solvents in use;
- Percent VOC and HAP by weight or pounds of VOC and HAP per gallon for each paint, coating, adhesive, sealant, and solvent;
- The quantity of each paint, coating, adhesive, sealant, and solvent purchased on a monthly basis; and
- The quantity of each paint, coating, adhesive, sealant, and solvent shipped offsite on a monthly basis.

VOC and HAP emissions shall be calculated on a material balance basis using % VOC and/or HAP from Safety Data Sheets or similar information sheets, such as chemical vendor supplied analysis certificates. All VOC and HAP in these materials are assumed to be released into the atmosphere. The mass balance equation described below shall be used to determine monthly total VOC and HAP emissions from painting, coating, adhesive, sealing, and solvent usage at the facility utilizing the data collected by the facility and any other applicable data:

$$\text{Monthly VOC or HAP Emissions} = \sum_{i=1}^n (A \times \text{Content}) - (B \times \text{Content})$$

Where:

- i = each VOC or HAP containing material used at the facility during the month;
- n = the number of VOC or HAP containing materials used at the facility during the month
- A = monthly facility purchases of VOC or HAP containing materials;
- B = quantities of VOC or HAP containing materials shipped offsite; and
- Content = VOC or HAP content of each VOC or HAP containing material used at the facility

The monthly totals of VOC and HAP shall be used to calculate and track VOC and HAP emissions on a calendar year total basis. Duratherm shall make these records available to the Department upon request.

BACT for the application of paints and coatings shall also include the use of high transfer efficiency spray guns, such as airless or high volume low pressure (HVLV) spray equipment, to prevent over-spray from the application of paints and coatings.

E. Parts Washer

The parts washer, Parts Washer #1, has a design capacity of six gallons. The parts washer is subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130 and records shall be kept documenting compliance.

F. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five minutes in any one-hour period during which time visible emissions shall not exceed 30% opacity. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations which exceed 20% in any one hour.

G. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis.

H. Annual Emissions

1. Total Annual Emissions

Duratherm shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on a facility wide VOC limit of 24.9 tons per year and a facility-wide total HAP limit of 9.9 tons per year:

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

	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC</u>
Process Sources	---	---	---	---	---	24.9
Total TPY	---	---	---	---	---	24.9

<u>Pollutant</u>	<u>Tons/year</u>
Total HAP	9.9

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 C.F.R. Part 52, Subpart A, § 52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 C.M.R. ch. 100, 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).

The quantity of CO₂e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's facility-wide emission limits;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98; and
- global warming potentials contained in 40 C.F.R. Part 98.

No additional licensing actions to address GHG emissions are required at this time.

III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source is determined by the Department on a case-by case basis. In accordance with 06-096 C.M.R. ch. 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual 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 licensed annual emissions for the facility 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-1133-71-A-N subject to the following conditions.

Severability. The invalidity or unenforceability of any provision of this License or part thereof 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. § 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]

- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. 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 C.F.R. 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 C.M.R. ch. 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 C.F.R. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(16) **06-096 C.M.R. ch. 159**

Duratherm shall meet the applicable requirements of 06-096 C.M.R. ch. 159 including, but not limited to, the following:

A. VOC Limits

1. Duratherm shall not use any adhesive, sealant, adhesive primer, or sealant primer with VOC contents above the levels provided in Table 1 of 06-096 C.M.R. ch. 159. [06-096 C.M.R. ch. 159, § 2.B.]
2. The VOC content limits in Table 1 for adhesives applied to particular substrates shall apply as follows [06-096 C.M.R. ch. 159, § 2.C.]:
 - a. If an operator uses an adhesive or sealant subject to a specific VOC content limit for such adhesive or sealant in Table 1, such specific limit is applicable rather than an adhesive-to-substrate limit; and
 - b. If an adhesive is used to bond dissimilar substrates together, the applicable substrate category with the highest VOC content shall be the limit for such use.
3. Duratherm may choose to comply with the VOC limits in Table 1 by using add-on air pollution control equipment meeting the specifications provided in the rule. [06-096 C.M.R. ch. 159, § 2.E.]

- B. Duratherm shall store or dispose of all absorbent materials, such as cloth or paper, which are moistened with adhesives, sealants, primers, or solvents subject to this rule, in non-absorbent containers that shall be closed except when placing materials in or removing materials from the container. [06-096 C.M.R. ch. 159, § 2.F.]
- C. Duratherm shall not require the use or specify the application of any adhesive, sealant, adhesive primer, sealant primer, surface preparation, or clean-up solvent if such use or application results in a violation of the provisions of this rule. The prohibition of this section shall apply to all written or oral contracts under which any adhesive, sealant, adhesive primer, sealant primer, surface preparation, or clean-up solvent subject to this rule is to be used at any location in Maine. [06-096 C.M.R. ch. 159, § 2.G.]
- D. The following compounds are exempt from the requirements of this rule [06-096 C.M.R. ch. 159, § 3.A.):
1. Adhesives and sealants that contain less than 20 grams of VOC per liter of adhesive or sealant, less water and less exempt compounds, as applied;
 2. Cyanoacrylate adhesives;
 3. Adhesives, sealants, adhesive primers, or sealant primers that are sold or supplied by the manufacturer or supplier in containers with a net volume of 16 fluid ounces or less, or a net weight of one pound or less, except plastic cement welding adhesives and contact adhesives;
 4. Contact adhesives that are sold or supplied by the manufacturer or supplier in containers with a net volume of one gallon or less; and
 5. Adhesives and sealants that are applied in a dry, powdered form and activated without the use of solvent.
- E. Duratherm shall maintain the following records [06-096 C.M.R. ch. 159, § 4.A.):
1. A list of each adhesive, sealant, adhesive primer, sealant primer, clean-up solvent, and surface preparation solvent in use and in storage;
 2. A data sheet or material list which provides the material name, manufacturer identification, and material application;
 3. Catalysts, reducers, or other components used in the mix ratio;
 4. The VOC content of each product as applied;
 5. The final VOC content or vapor pressure, as applied; and
 6. The annual volume of each adhesive, sealant, adhesive primer, sealant primer, clean-up solvent, and surface preparation solvent used or purchased.
- F. All records shall be maintained for five years and shall be made available to the Department within 90 days of a request. [06-096 C.M.R. ch. 159, § 4.C.]

(17) Paint Booth #1

- A. Duratherm shall use fabric exhaust filters for control of PM from Paint Booth #1. Duratherm shall properly maintain these filters and maintain records of all repair and maintenance conducted on the filters. [06-096 C.M.R. ch. 115, BACT]
- B. Visible emissions from the Paint Booth #1 exhaust shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

(18) Woodworking Equipment

- A. Duratherm shall utilize a dust collection system and cyclone for control of PM from the Woodworking Equipment. Duratherm shall properly maintain the dust collection system and cyclone and maintain records of all repair and maintenance conducted on the dust collection system and cyclone. [06-096 C.M.R. ch. 115, BACT]
- B. Visible emissions from the Woodworking Equipment cyclone shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

(19) Process Emissions of VOC and HAP

- A. Duratherm shall limit facility-wide VOC emissions to less than 24.9 tons per year and total facility-wide HAP emissions to less than 9.9 tons per year, both on a calendar year total basis. [06-096 C.M.R. ch. 115, BACT]
- B. Duratherm shall calculate these emissions on a monthly and calendar year total basis, based on the methods specified in Condition (20) of this Air Emission License. [06-096 C.M.R. ch. 115, BACT]
- C. To demonstrate compliance with the tons per year limits for VOC and HAP, Duratherm shall maintain the following records for all VOC- and HAP-emitting materials used at the facility [06-096 C.M.R. ch. 115, BACT]:
 - 1. Names and types of all paints, coatings, adhesives, sealants, and solvents in use;
 - 2. Percent VOC and HAP by weight or pounds of VOC and HAP per gallon for each paint, coating, adhesive, sealant, and solvent;
 - 3. The quantity of each paint, coating, adhesive, sealant, and solvent purchased on a monthly basis; and
 - 4. The quantity of each paint, coating, adhesive, sealant, and solvent shipped offsite on a monthly basis.

- (20) The mass balance equation described below shall be used to determine monthly and calendar year total VOC and HAP emissions from the painting, coating, adhesive, sealant, and solvent operations at the facility utilizing the data collected in accordance with Condition (20), above, and any other applicable data:

$$\text{Monthly VOC or HAP Emissions} = \sum_{i=1}^n (A \times \text{Content}) - (B \times \text{Content})$$

Where:

- i = each VOC or HAP containing material used at the facility during the month;
- n = the number of VOC or HAP containing materials used at the facility during the month
- A = monthly facility purchases of VOC or HAP containing materials;
- B = quantities of VOC or HAP containing materials shipped offsite; and
- Content = VOC or HAP content of each VOC or HAP containing material used at the facility

[06-096 C.M.R. ch. 115, BACT]

- (21) Duratherm shall use high transfer efficiency spray guns, such as airless or high volume low pressure (HVLP) spray equipment for the application of paints and coatings.
[06-096 C.M.R. ch. 115, BACT]

(22) **Parts Washer**

Parts Washer #1 at Duratherm is subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

A. Duratherm shall keep records of the amount of solvent added to the parts washer.
[06-096 C.M.R. ch. 115, BPT]

B. The following are exempt from the requirements of 06-096 C.M.R. ch. 130
[06-096 C.M.R. ch. 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 06-096 C.M.R. ch. 130.
1. Duratherm shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 C.M.R. ch. 130]:
 - a. Waste solvent shall be collected and stored in closed containers.
 - b. 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.
 - c. 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.
 - d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
 - e. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the parts washer.
 - f. 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.
 - g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
 - h. Work area fans shall not blow across the opening of the parts washer unit.
 - i. 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 C.M.R. ch. 130]
 3. Parts Washer #1 shall be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of solvent. [06-096 C.M.R. ch. 130]

(23) Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five minutes in any one-hour period during which time visible emissions shall not exceed 30% opacity. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations which exceed 20% in any one hour. [06-096 C.M.R. ch. 115, BACT]

(24) General Process Sources

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

Duratherm Window Corporation
Kennebec County
Vassalboro, Maine
A-1133-71-A-N

17

Departmental
Findings of Fact and Order
Air Emission License

- (25) Duratherm 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. § 605).

DONE AND DATED IN AUGUSTA, MAINE THIS 22 DAY OF May, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *Paul Mercer*
PAUL MERCER, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 26, 2018

Date of application acceptance: April 3, 2018

Date filed with the Board of Environmental Protection:

This Order prepared by Jonathan E. Rice, Bureau of Air Quality.

