



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

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COMMISSIONER

Riverbend Fiberglass, Inc. )  
Oxford County ) Departmental  
Dixfield, Maine ) Findings of Fact and Order  
A-1075-71-A-N (SM) ) Air Emission License  
After-the-Fact New Source

**FINDINGS OF FACT**

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

**I. REGISTRATION**

**A. Introduction**

Riverbend Fiberglass Inc. (RFI) of 16 Carter Road Dixfield, Maine has applied for a new Air Emission License, permitting the operation of emission sources associated with their boat repair and manufacturing facility.

**B. Emission Equipment**

The following equipment is addressed in this air emission license:

**Process Equipment**

<b>Emission Unit ID</b>	<b>Type of Equipment</b>	<b>Maximum Raw Material Process Rate (name and rate)</b>	<b>Date of Installation</b>	<b>Control Device</b>
Spray Gun #1	Fiberglass chopper gun	22.2 CFM	2005	Overspray/arrestor filters
Spray Gun #2	Fiberglass chopper gun	22.2 CFM	2007	Overspray/arrestor filters

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17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826  
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BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
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312 CANCO ROAD  
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1235 CENTRAL DRIVE, SKYWAY PARK  
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**Process Equipment Chemical Usage <sup>a</sup>**

Process	Chemical compound used in process	Actual Compound Usage (2011)	Hazardous chemical(s) in compound	Total VOC emitted (lb/year) <sup>b</sup>	Total HAP emitted (lb/year)
Fiberglass Roving & Lamination	polyester resins	50000 pounds	styrene	3650 lbs	3650 lbs
Lamination and coloring hardener	solvents, methyl ethyl ketone peroxide	1300 pounds	organic peroxide	390 lbs	390 lbs
Gel-coat coloring	assorted polyester gel-coats	1200 pounds	styrene	424 lbs	424 lbs
Cleaning agent	acetone	1800 pounds	none	0 lbs	0 lbs

a This table indicates chemical usage and emissions under current operations only, RFI may increase the number of boats serviced or may begin boat hull construction in the future.

b Calculated using the United Emissions Factor for Open Molding of Composites.

RFI operates small boilers with a maximum heat input of less than 1.0 MMBtu/hr, therefore, these units are considered insignificant per 06-096 CMR 115 Appendix B and are noted for inventory purposes only. The units fire #2 fuel oil and therefore 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).

**C. Application Classification**

RFI is classified as an existing source that is applying for its first air emission license, after the fact. A source is considered a major source based on whether or not expected emissions exceed the "Significant Emission Levels" as defined in the 06-096 CMR 100 (as amended). The emissions for RFI are determined by the maximum future license allowed emissions, as follows:

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Pollutant*	Max. Future License (TPY)	Sig. Level
PM	N/A	100
PM <sub>10</sub>	N/A	100
SO <sub>2</sub>	N/A	100
NO <sub>x</sub>	N/A	100
CO	N/A	100
CO <sub>2e</sub>	N/A	100,000
VOC	24.9	50
Single HAP	9.9	10
Total HAP	24.9	25

\* All fuel burning equipment at RFI are considered "insignificant"; therefore emissions from these units are not included in the licensed allowed emission limits for PM, SO<sub>2</sub>, NO<sub>x</sub>, CO, and CO<sub>2e</sub> emissions listed in the table above.

The Department has determined RFI is a minor source and the application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended). With the VOC and HAP limits on the process equipment at the facility, RFI is licensed below the major source thresholds and below 06-096 CMR 137 reporting thresholds. With the federally enforceable VOC and HAP emission limits established through this air emissions license, the facility is licensed below the major source thresholds and is considered a synthetic minor.

## 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. RFI is considered an existing source applying for a new license.

BPT for new sources and existing sources applying for their first air license 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.

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B. Facility Overview

Riverbend Fiberglass produces a variety of fiberglass parts. All parts are made by the open mold process due to the cost and complexity of other methods. RFI uses mostly unsaturated polyester resins and some gel-coat. The bulk of the RFI manufacturing is non-gel coated parts. The resin typically contains a styrene monomer, which is partially volatized during application and curing. This process produces the majority of the VOC emissions.

The bulk of the fiberglass manufacturing is for forms and the process begins with spray chopped strand fibers (or in some cases) resin, with a hand-laid mat and woven cloth added to the lamination to a waxed mold surface. Most application involves just 3 layers applied at one time. The fiberglass chop method uses bulk materials and a hand held spray gun. Hoses are connected to the spray gun where the resin and catalyst mix at the tip externally. At the same time strands of roving are pulled through eyelets on the boom and into the gun where blades chop the roving into strands about 1" long. The catalyst serves as an initiator of the polymerization reaction, and can be controlled to govern cure time. In warmer weather the catalyst percentage is lowered to slow down the gel time to allow the workers to work with the material to roll out all the air bubbles in the lay-up. In the winter the percentage is higher to cure the resin faster.

Once the part is cured, it is pulled off the molds and the part is hand sanded and all the edges are ground smooth. All work is performed indoors and there are two fan-forced systems along with natural ventilation to remove any vapors and particles during the manufacturing along with the finish process. The fans are equipped with filters to trap any particles that could potentially leave the building.

Clean-up of the chopper gun is minimal, as the guns mix externally, only the tips of the gun need cleaning in acetone once the process of spraying the parts is finished. All small containers used for tool cleaning are kept with lids on to prevent excessive evaporation leading to unnecessary release of VOCs and HAPs. Both spray guns at RFI are air assist and only use a minimal amount of air during the manufacturing process, and no air is added at the gun tip which cuts down the amount of overspray and fumes the manufacturing process produces.

The open mold process is currently the most effective process for the fiberglass manufacture of small boats and boat repair. RFI has tried using lower VOC (styrene) resin, however product quality suffered. The facility found the parts would stick to the molds and ruin the part or damage the mold trying to get it off the mold. Closed molding for RFI is currently not economically feasible.

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RFI estimates total VOC and HAP emissions from these processes based on monthly purchase records. All quantities purchased are assumed to be used during the month of purchase. Styrene emissions are calculated using the July 2001 Unified Emission Factors table developed by EPA and the Composite Industries.

**Non VOC Emitting Activities**

Each VOC emitting process at RFI is often preceded or followed by activities such as grinding, sanding and buffing. These activities emit airborne particulates which are often performed under the same containment/ventilation enclosures as used in the painting or laminating process. Particulates are often captured by the overspray filters or are cleaned and disposed of once they collect on the concrete floor.

C. BACT and Pollution Prevention

**Paints, Fiberglass Lamination and Gelcoat Application**

RFI routinely monitors new products available throughout the industry. As paints, solvents and resins which offer low VOC and HAP content become available, the facility evaluates if those products can be implemented into processes in an effort to reduce potential air pollution. Paints with low VOC and resins with minimal styrene content will be used after it's confirmed that such use will not compromise the quality of the final product. Alternatives for VOC emitting solvents such as citrus-based solutions are also explored, but are often lacking in effectiveness when compared to the solvents currently used. Acetone and denatured alcohol are the most commonly used solvents in the cleaning process. Acetone is not considered a VOC or HAP and is used in place of other solvents which may contain VOCs and have no ability to be recycled. RFI does not use closed molding infusion for its processes but will continue to research to determine its cost effectiveness whenever feasible.

VOC/styrene emissions from the open-mold method of fiberglass lamination and gelcoat application are attributed to evaporation of resin or gelcoat over-spray and vaporization from the applied resin or gel coat prior to polymerization. The maximum potential VOC emissions from fiberglass and gelcoat application are a function of the potential quantity of resin. Essentially all of the VOC present in the resin is styrene. Due to polymerization of the styrene monomer, not all of the VOC as delivered is volatilized.

BACT will require RFI to calculate VOC and HAP emissions based on monthly purchases of VOC and HAP containing material, which are assumed to be used in

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the month they were purchased. Styrene and Methyl Methacrylate (MMA) emissions are estimated using the Unified Emission Factor (UEF) estimation model for open molding of composites. All other VOC and HAP emission estimates are on a material balance basis using % VOC and/or HAP from Material Safety Data Sheets or similar information sheets, such as chemical vendor supplied analysis certificate.

As part of BACT for VOC and HAP reduction, RFI shall maintain and make available upon request a current list of all resins and cleaning materials in use. This list shall provide the necessary data to determine compliance, including:

- a) Resin catalyst, and cleaning materials in use;
- b) Percent VOC and HAP by weight for each resin, and the pounds VOC and HAP per gallon of cleaning materials;
- c) The amount and type of resin materials purchased on a monthly basis; and
- d) The amount and type of cleaning materials purchased on a monthly basis.

The monthly totals of VOCs and HAPs shall be calculated and tracked on a monthly and 12 month rolling total basis. RFI shall maintain these records for 6 years and make them available upon request from the Department. RFI also has some parts washers which are subject to requirements specified in 06-096 CMR 130.

Also, PM<sub>10</sub> emissions are generated by over-spray during the application of resin and gelcoat. To control these emissions and to meet BACT, RFI has installed filters on all forced ventilation points that are adjacent to the spray gun operations.

RFI will continue to monitor options available to the marine industry and will put consistent effort into collaborating with regional competitors so the best available control technologies can be applied. Due to the nature of custom boat building and repair, no fixed pollution control systems or strategies can be applied. RFI will pursue usage of substances which are designed to emit lesser amounts of VOC and HAP as they become available. BACT will focus on potential pollution prevention techniques, lower VOC and HAP containing chemicals, and possible development of closed molding technology where applicable for VOC and HAP control from the facility.

**Maintenance Activities: Including Grinding, Sanding, & Buffing**

Fugitive particulate emissions are generated in the production of the hull molds from grinding, sanding, and cutting operations. RFI utilizes various particulate control systems that vent internally to control particulate emissions, resulting from machining, buffing, grinding and sanding of fiberglass, metal or wood. Most

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particulate emitting maintenance activities such as sanding/grinding takes place indoors.

VOC emissions in these areas are minimal and result from the use of adhesives, glues, putties, patching/modification, and cleaning chemicals. Given the minimal quantity of VOC emissions from these activities, control equipment is not warranted or economically feasible. To reduce VOCs, RFI will use low VOC content products, such as citrus and water based cleaners, when possible and will continue to review alternative products. Acetone, which is neither a VOC nor HAP, is currently used, however, the facility should consider alternative citrus and/or water based cleaners when possible.

The use of filters to control forced ventilation systems that exhaust outside the facility represents BACT for particulate emissions.

#### **Oil fired boilers**

Due to the relatively small size of each individual unit, the fuel burning equipment at the facility does not warrant the installation of add-on air pollution control devices. The fuel burning equipment fires #2 fuel oil, however, are considered "insignificant activities" based on size of each unit per 06-096 CMR 115 Appendix B.

#### **BACT Summary/Conclusions**

RFI shall meet the following BACT requirements to reduce VOC and HAP emissions:

- Continue to research the use of closed-mold technology whenever economically and technologically feasible for the manufacture of fiberglass boats and boat parts;
- Use controlled spray techniques, including lowest fluid tip pressure which produces an acceptable spray pattern and operator training, when using mechanical sprayers for the application of gelcoats and resins;
- Use manual application methods for open-mold resin processes, when technologically appropriate;
- Limit overall facility-wide VOC emissions to 24.9 tons per year;
- Limit facility-wide HAP emissions to 9.9 TPY for any single HAP and 24.9 TPY for total HAPs;
- Conduct manufacturing and feasibility test trials of pollution prevention technologies such as low styrene resins and water-based or low vapor pressure cleaning solvents as they become commercially available. RFI will

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produce an annual report with any changes and/or updates that become commercially available;

- Maintain good housekeeping practices, such as lids on and proper storage of open containers; and
- Maintain records of monthly resin, gel coat, paints, and solvent purchases facility-wide.

In addition to VOC and HAP control, RFI will meet the following BACT requirements for particulate matter (PM) from various boatyard activities:

- Control PM emissions from any cutting, buffing, grinding, or sanding processes that vent to the ambient air via vent or duct through the use of a particulate filter such that opacity will not exceed 10% for any one, six minute block average;
- Reduce the potential for fugitive PM emissions from any process conducted outside by limiting such activity to periods of calm winds or through the use of a shroud or wind curtain.

**D. Annual Emission Restrictions**

1. RFI shall be restricted to the following annual emissions, based on a 12-month rolling total:

**Total Licensed Annual Emissions for the Facility**  
(used to calculate the annual license fee)

<b>Pollutant</b>	<b>Tons/yr</b>
PM	--
PM <sub>10</sub>	--
NO <sub>x</sub>	--
SO <sub>2</sub>	--
CO	--
VOC	24.9
Single HAP	9.9
Total HAPS	24.9

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 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in

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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 (CO<sub>2</sub>e).

Based on the facility's fuel use limit(s), 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, RFI is below the major source threshold of 100,000 tons of CO<sub>2</sub>e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

E. State and Federal Requirements Review

**40 CFR Part 63 Subpart II**

On December 15, 1995, EPA promulgated the *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Shipbuilding and Ship Repair (Surface Coating)*. The provisions of this subpart apply to shipbuilding and ship repair operations at any facility that is a major source. RFI is not considered a major source nor does it meet the definition of shipbuilding as defined in §63.782. For purposes of Subpart II, pleasure crafts and offshore oil and gas drilling platforms are not considered ships.

**40 CFR Part 63 Subpart VVVV**

On August 22, 2001 the EPA promulgated the *NESHAP for Boat Manufacturing*. The NESHAP requires all major sources of HAPs to meet emission standards that reflect Maximum Achievable Control Technology (MACT). RFI will be restricted with federally enforceable HAP emission limits below major source thresholds. RFI must limit organic HAP emissions from its facility's operations to less than 9.9 tons per year single HAP and less than 24.9 tons per year of total HAP.

**40 CFR Part 63 Subpart HHHHHH**

On January 9, 2009, EPA promulgated the *NESHAP: Paint Stripping and Miscellaneous Surface Coating Operations at Area Source*. The rule applies to any area source that engages in any of the following activities:

- Paint stripping using paint stripper containing methylene chloride (MeCl)

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- Spray application of coatings to metal or plastic substrates with coatings containing compounds of Chromium, Lead, Manganese, Nickel, or Cadmium.

RFI does not use paint strippers containing MeCl but may use paints or coatings in the future that could make the facility subject. If the facility uses any coatings that trigger this regulation, RFI shall meet all applicable requirements at that time.

**06-096 CMR 162**

The Department has proposed 06-096 CMR 162, "Control for Fiberglass Boat Manufacturing Materials" which incorporates EPA's Control Technique Guidelines (CTG) specific to Fiberglass Boat Manufacturing. EPA intends for states to incorporate CTGs into their state rules. The regulation is not currently in effect, however, RFI should be aware of this rule if/when it becomes adopted.

**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:

<b>Pollutant</b>	<b>Tons/Year</b>
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	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,

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- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-1075-71-A-N (SM) 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]

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- (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]

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(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]

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**SPECIFIC CONDITIONS**

**(16) Process Emissions**

- a. RFI shall maintain good housekeeping practices (close lids and proper storage of all VOC/HAP containing containers, etc.) and control emissions from the entire existing and future processes to less than: 24.9 tons/year of VOC emissions, 9.9 tons/year of any single HAP and 24.9 tons/year of total HAPs.
- b. RFI shall calculate these emissions on a monthly and 12-month rolling total basis, based on the method as specified in Conditions (17) and (18).  
[06-096 CMR 115, BACT]

- (17) To ensure compliance with BACT for VOC and HAPs, RFI shall record the quantity of resins, gel coats, paints, and solvents used at the facility and also the VOC and HAP content of each, and any other applicable information for each of the following:

- A. Monthly Facility Purchases for use at the facility
- B. Quantity shipped off Site

[06-096 CMR 115, BACT]

- (18) The mass balance equation shall be defined as follows to determine monthly VOC emissions for the applicable boat manufacturing departments utilizing the data collected from Condition (17) and any other applicable data:

- A. Monthly Facility Purchases
- B. Quantity Shipped offsite

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

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

where, i is equal to each material used at the facility during the month and n is equal to the number of materials used at the facility during the month

When calculating VOC emissions from open molding resin and gel coat procedures, the current version of the American Composites Manufacturers Association (AMCA, formerly the CFA) unified emission factors shall be used in the "Monthly VOC Emissions" equation.

[06-096 CMR 115, BACT]

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- (19) RFI shall conduct manufacturing and feasibility test trials of pollution prevention technologies such as low styrene resins and water-based or low vapor pressure cleaning solvents as they become commercially available. RFI shall continue to research and develop closed molding applications to increase its use facility-wide. This research should be documented annually and made available upon request of the Department. [06-096 CMR 115, BACT]
- (20) RFI shall continue to use their current spray guns for the application of gelcoats and resins, however, shall replace standard spray guns with high transfer efficiency units such as airless or high volume low pressure (HVLV) spray equipment as they wear out. [06-096 CMR 115, BACT]
- (21) RFI shall use controlled spray techniques, including lowest fluid tip pressure which produces an acceptable spray pattern and operator training, when using mechanical sprayers for the application of gelcoats and resins. RFI shall use manual application methods for open-mold resin processes, when technologically appropriate.
- (22) RFI shall meet all applicable requirements of 40 CFR Part 63, Subpart HHHHHH, *NESHAP for Paint Stripping and Miscellaneous Surface Coating Operations at Area Source*, if/when using any paints or coatings that apply.
- (23) RFI shall control PM emissions from any cutting, buffing, grinding, or sanding processes that vent to the ambient air via vent or duct through the use of a particulate filter. RFI shall properly maintain and all dust collection equipment in the facility and make repairs as necessary to prevent system leakage. A log shall be kept of repairs and maintenance of the dust collection equipment. [06-096 CMR 115, BACT]
- (24) Particulate matter emissions from exhaust fan filters are generally unquantifiable; therefore particulate matter emissions shall be limited via a visible emissions limit of 10% opacity based on a 6-minute block average basis. RFI shall reduce the potential for fugitive PM emissions from any process conducted outside by limiting such activity to periods of calm winds or through the use of a shroud or wind curtain. [06-096 CMR 115, BACT]
- (25) **Parts Washer**

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

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- A. RFI 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. RFI 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]

(26) **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)

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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]

(27) **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]

- (28) RFI 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 19 DAY OF March, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

Patricia W. Aho  
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, 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: July 30, 2012  
Date of application acceptance: August 8, 2012

Date filed with the Board of Environmental Protection:

This Order prepared by Edwin Cousins, Bureau of Air Quality



