



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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COMMISSIONER

Front Street Shipyard)
Waldo County)
Belfast, Maine)
A-1078-71-A-N (SM))

Departmental
Findings of Fact and Order
Air Emission License
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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 Department finds the following facts:

I. REGISTRATION

A. Introduction

Front Street Shipyard (FSS) of Belfast, 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

FSS is licensed to operate the following air emission activities:

Process Equipment

Emission Unit ID	Type of Equipment	Maximum Raw Material Process Rate (name and rate)	Date of Installation	Control Device
Spray Gun #1	Paint Gun Binks 2100	22.2 CFM	2011	Overspray/arrestor filters
Spray Gun #2	Paint Gun Binks 2100	22.2 CFM	2011	Overspray/arrestor filters
Spray Gun #3	Paint Gun Binks 2100	22.2 CFM	2011	Overspray/arrestor filters
Spray Gun #4	Paint Gun Binks 2100	22.2 CFM	2011	Overspray/arrestor filters
Spray Gun #5	Paint Gun Binks 2100	22.2 CFM	2011	Overspray/arrestor filters

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Spray Gun #6	Paint Gun Binks 2100	22.2 CFM	2011	Overspray/arrestor filters
Binks Resin	Resin Gun Binks 2100	22.2 CFM	2011	Overspray/arrestor filters
Binks Gelcoat	Gelcoat Gun Binks 2100	22.2 CFM	2011	Overspray/arrestor filters

Process Equipment Chemical Usage *

Process	Chemical compound used in process	Actual Compound Usage (2011)	Hazardous chemical(s) in compound	Total VOC emitted (lb/year)	Total HAP emitted (lb/year)
Marine Coating Application	paints, primers	1475 gal	Ethyl Benzene, Xylene, Toluene, Butanone, Methyl Benzene, PGME	4870 lbs	2705 lbs
Marine Coating Application/ cleaning & thinning	solvents, thinners, reducers	1500 gal	Methyl Benzene, Propylene glycol monomethylether, Trimethyl Benzene, Butyl Acetate, Xylene	8430 lbs	4580 lbs
Resin application spray/roller	Vinyl ester resin	5500 gal	Styrene	6500 lbs	6500 lbs
Gelcoat application	gelcoat	60 gal	Styrene, Methyl Methacrylate	250 lbs	190 lbs
Hull repair	epoxy fillers	50 gal	Styrene	100 lbs	100 lbs

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

FSS operates several small boilers with a maximum heat input 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 natural gas and therefore are not subject to the *National Emission Standards for*

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Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR Part 63 Subpart JJJJJ).

C. Application Classification

FSS 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 FSS are determined by the maximum future license allowed emissions, as follows:

Pollutant*	Max. Future License (TPY)	Sig. Level
PM	N/A	100
PM ₁₀	N/A	100
SO ₂	N/A	100
NO _x	N/A	100
CO	N/A	100
VOC	24.9	50
Single HAP	9.9	10
Total HAP	24.9	25

* All fuel burning equipment at FSS are considered “insignificant”; therefore emissions from these units are not included in the licensed allowed emission limits for PM, SO₂, NO_x, and CO emissions listed in the table above.

The Department has determined FSS 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, FSS 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).

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Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for an after-the-fact renewal requires an analysis similar to a Best Available Control Technology analysis per 06-096 CMR 115 (as amended).

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.

B. Facility Overview

Front Street Shipyard is a facility located at 101 Front Street in Belfast, Maine. The facility started operations in early 2011 and currently employs approximately 80 full time employees. Front Street Shipyard has grown along with the number of employees and is equipped to perform complete new builds, refits and all types of repair. FSS utilizes several processes that emit regulated pollutants, specifically VOC and HAP. Processes such as painting, laminating and cleaning are the primary sources of these compounds.

Front Street Shipyard operates a large ventilation unit which continuously cycles and filters the air when painting and vinyl ester resin application takes place. The ventilation system can also be activated into a “paint mode” which boosts the rate of ventilation and allows the filtered air to be released through a stack more than 50 feet above ground level.

C. Process Description

Fiberglass Lamination / Gelcoat Application

While Front Street Shipyard has yet to begin new hull construction projects, it is likely that there will be several such projects in process as the business expands. Hull construction will consist mostly of open mold methods, with small components occasionally being constructed with closed mold infusion methods. The vinyl ester resin and gelcoats used contain styrene monomer which accounts for the majority of all VOC released in lamination processes. Acetone is the primary cleaner used in the lamination department.

The projected quantity of vinyl ester resins used on site is assumed to be applied with the mechanical spray application process. The spray application releases the

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most VOC of all lamination processes and will be the primary method of hull construction. A small amount of resin usage will be applied by manual hand layup methods, or closed mold vacuum infusion methods.

Front Street Shipyard 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 Unified Emission Factors table.

Coating application

Front Street Shipyard produces the majority of total VOC and HAP through painting processes. There are 6 available spray guns on site, 3 of which are employee owned. VOC and HAP emissions generated by the painting process consist of compounds such as toluene, butyl acetate, xylene and others. The paints and primers used are mixed with reducers which contain solvents and are often composed of 100% VOC. Though there is some waste solvent that is not volatilized and is disposed of as liquid waste, all VOC containing substances used are assumed to be 100% volatilized for licensing purposes.

All spray painting is applied while being contained by plastic “tent” enclosures to prevent the vapors from escaping into adjacent work areas. The plastic enclosures are constructed so they can be ventilated using the facility's fixed ventilation system, or are ventilated by high CFM industrial fans which transport the vapors outside via plastic tubing. Each method of ventilation used forces all exhausted air through overspray paint arrest filters before being released into the air.

All guns and various tools used in the coating process must be cleaned regularly to prevent buildup of solids. This increases the amount of VOC solvents that must be used during the coating application process. All small containers used for tool cleaning are kept with lids on to prevent excessive evaporation leading to unnecessary release of VOC and HAP.

Non VOC Emitting Activities

Each VOC emitting process at Front Street Shipyard 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 paint overspray filters or are cleaned and disposed of once they collect on the concrete floor.

D. BACT and Pollution Prevention

Paints, Fiberglass Lamination and Gelcoat Application

Front Street Shipyard continuously monitors all 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 individual departments confirm 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 solvents. Acetone and denatured alcohol are the most commonly used solvents in the cleaning process. Acetone is not considered a VOC and is used in place of other solvents which may contain VOC and have no ability to be recycled. Closed molding infusion processes will be utilized for lamination whenever feasible since it provides a 98% reduction in Styrene and Methyl Methacrylate (MMA) emissions.

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. For this analysis, the actual VOC emitting equipment from open and closed mold resin and gelcoat application includes spray guns and a vacuum infusion system. 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. The majority of resin at FSS is applied using a non-atomized mechanical method.

BACT will require FSS to calculate VOC and HAP emissions based on monthly purchases of VOC and HAP containing material, which are assumed to be used in the month they were purchased. Styrene and MMA emissions are estimated using the Unified Emission Factor (UEF) estimation model for open molding of composites or through the use of a standard emission factor of 1% of available styrene for closed molding processes. All other VOC and HAP emission estimates are on a material balance basis.

As part of BACT for VOC and HAPs control, FSS 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:

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- a) Resin catalyst, and cleaning materials in use.
- b) Percent VOC by weight for each resin, and the pounds VOC per gallon of cleaning materials.
- c) The amount and type of resin materials purchased on a monthly basis
- 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 12 month rolling average basis. FSS shall maintain these records for 6 years and make them available upon request from the DEP. FSS also has some parts washers which will meet the requirements specified in 06-096 CMR 130.

Also, PM₁₀ emissions are generated by over-spray during the application of resin and gelcoat. To control these emissions and to meet BACT, FSS has installed filters on all forced ventilation points that are adjacent to the spray gun operations.

FSS will continue to monitor options available to the shipbuilding 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. The various sizes, shapes and time frames involved with ship building and repair do not allow for controls to be implemented in limiting VOC and HAP emissions. Front Street Shipyard will pursue usage of substances which are designed to emit a lesser percentage of VOC as they become available. BACT will focus on potential pollution prevention techniques and continued 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. FSS 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 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, FSS 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 also 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.

BACT Summary/Conclusions

Based on the results of an air emission inventory for 2011, FSS emitted approximately 10 tons of VOC and 7 tons of HAPs. FSS shall meet the following BACT requirements to reduce VOC and HAP emissions:

- Continue to use the 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. FSS will produce an annual report with any changes and/or updates that become commercially available.
- Maintain good housekeeping practices (i.e., lids on, proper storage of open containers, etc.);
- Maintain records of monthly resin, gel coat, paints, and solvent purchases facility-wide.

In addition to VOC and HAP control, FSS 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.

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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 propane, however, are considered “insignificant activities” per 06-096 CMR 115 based on size of each unit.

E. Annual Emission Restrictions

FSS 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)

Pollutant	Tons/yr
PM	--
PM ₁₀	--
NO _x	--
SO ₂	--
CO	--
VOC	24.9
Single HAP	9.9
Total HAPS	24.9

F. 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. FSS 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). FSS will be restricted with federally enforceable HAP emission limits below major source thresholds.

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

FSS 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, FSS 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. This regulation requires fiberglass boat manufacturing operations with a 12-month rolling average emissions of 2.7 tons per year or greater to utilize one or more VOC emission control technologies. Sources may utilize low-VOC content resins and gel coats, average their emissions among different operations (some of which may not be low-VOC), or use add-on emission control devices. The rule also requires the use of low-vapor pressure cleaning solvents and establishes basic work practice requirements. The regulation is not currently in effect, however, FSS should be aware of this rule if/when it becomes adopted.

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a minor new source shall be determined on a case-by case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

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

The Department hereby grants Air Emission License A-1078-71-A-N 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.

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- 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 emission 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) **Process Emissions**
- a. FSS shall maintain good housekeeping practices (close lids, proper storage of open 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. FSS shall calculate these emissions on a monthly and 12-month rolling total basis, based on the method as specified in Conditions (17), (18), and (21).
[06-096 CMR 115, BACT]
- (17) To ensure compliance with BACT for VOC and HAPs, FSS 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

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

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.

The styrene emission rate for the vacuum infusion method is assumed to be 1% of the amount used on a weight basis.

[06-096 CMR 115, BACT]

- (19) FSS 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. FSS 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) FSS shall continue to use airless spray guns for the application of gelcoats and resins and shall replace standard spray guns with high transfer efficiency units such as airless spray equipment and flow coaters as they wear out. [06-096 CMR 115, BACT]
- (21) FSS 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. FSS shall use manual application methods for open-mold resin processes, when technologically appropriate.
- (22) FSS 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) FSS 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. FSS shall properly maintain all dust collection equipment in the facility and make repairs as necessary to prevent system leakage. [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. FSS 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 FSS are subject to 06-096 CMR 130, *Solvent Cleaners*, (as amended).

- A. FSS 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. FSS 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.

Front Street Shipyard
Waldo County
Belfast, Maine
A-1078-71-A-N (SM)

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Departmental
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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) 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) FSS 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 18th DAY OF October, 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Melanie [Signature] 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, 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 23, 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

