

12 July 2012

Mr. Randall H. Borges, President
Waterline Systems LLC
225 Alexander Road
Portsmouth, RI 02871

Dear Mr. Borges:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your request for a minor source permit for your fiberglass boat building facility located at 225 Alexander Road in Portsmouth, RI.

Enclosed is a minor source permit issued pursuant to our review of your request (Approval No. 2177).

I may be reached at 401-222-2808, extension 7110 if there are any questions.

Sincerely,

Ruth A. Gold
Principal Air Quality Specialist
Office of Air Resources

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

MINOR SOURCE PERMIT

WATERLINE SYSTEMS LLC

APPROVAL NO. 2177

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

Waterline Systems LLC

For the following:

A boat manufacturing and repair facility using various fabrication methods.

Located at: *225 Alexander Road, Portsmouth*

This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *Waterline Systems LLC* from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.

Douglas L. McVay, Acting Chief
Office of Air Resources

Date of issuance

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

Permit Conditions and Emission Limitations

WATERLINE SYSTEMS LLC

APPROVAL NO. 2177

A. Emission Limitations

1. Volatile Organic Compound (VOC) Emission Limitations

- a. The total quantity of VOC emissions discharged to the atmosphere from all operations conducted for the entire facility shall not exceed 8,167 pounds of VOC per calendar month based upon a 12-month rolling average.
- b. Polyester resin shall not have a VOC content greater than 45 percent by weight.
- c. Vinyl ester resin shall not have a VOC content greater than 50 percent by weight.
- d. Tooling resin shall not have a VOC content greater than 55 percent by weight.
- e. Gel coats shall not have a VOC content greater than 40 percent by weight.
- f. Tooling gel coats shall not have a VOC content greater than 50 percent by weight.

2. Methyl methacrylate

- a. Gel coats shall not have a methyl methacrylate content greater than 15 percent by weight.

3. Hazardous Air Pollutant (HAP) Emission Limitations

The total quantity of HAP emissions discharged to the atmosphere from all operations, from the entire facility, shall not exceed 1,500 pounds of any one HAP or 4,000 pounds of any combination of HAPs per calendar month based upon a 12-month rolling average. "Hazardous Air Pollutant" shall mean an air pollutant

that has been listed pursuant to Section 112(b) of the Clean Air Act Amendments of 1990.

4. Wood Products Manufacturing Operations

The total quantity of VOC emissions discharged to the atmosphere from wood products manufacturing operations, for the entire facility, shall not exceed 4,000 pounds of VOC per calendar month based upon a 12-month rolling average. "Wood products manufacturing operations" shall have the meaning given to that term in Air Pollution Control Regulation No. 35.

5. Listed Toxic Air Contaminants Emission Limitations

The total quantity of emissions discharged to the atmosphere from the entire facility, of any listed toxic air contaminant shall not exceed the minimum quantity for that contaminant as specified in Appendix A of Air Pollution Control Regulation No. 9, based upon a 12-month rolling average. Emissions from activities exempted from the provisions of APC Regulation No. 22 in subsection 22.2.2 are not included in this limitation.

B. Operating Requirements

1. Where atomized spraying is used to apply gel coats or resins, spraying equipment shall be high volume, low pressure (HVLP) or air-assisted, airless spray guns.
2. Controlled spraying methods shall be used for all spray application of gel coats or resins where atomized spraying is used.
3. Controlled spray methods shall be in accordance with the American Composites Manufacturers Association's "Controlled Spraying Handbook". The controlled spraying work practice must include the following elements:
 - a. Spray gun operator training that teaches proper spray gun handling techniques.
 - b. Operation of the spray gun at the lowest fluid tip pressure.
 - c. The use of close containment mold flanges to minimize overspray off the mold. Containment flanges are only needed where the overspray is difficult to control.
4. All spray gun operators shall be trained in controlled spraying techniques by 11 July 2004, or upon hiring, whichever is later. Spray gun operators shall be given periodic refresher training.

5. Initial and refresher training shall include, at a minimum, the following topics:
 - a. Understanding of the importance of controlled spraying;
 - b. Recognition of the effects of overspray on styrene emissions;
 - c. Recognition of the effects of spray gun pressure on emissions;
 - d. Understanding of the procedure to establish proper spray gun pressure;
 - e. Understanding of spraying techniques;
 - f. Understanding of the purpose of overspray containment flanges;
 - g. Completion of a performance evaluation.
6. All employees contacting gel coat and/or laminating resins shall wear either reusable or disposable non-porous gloves whenever they use or apply gel coats and/or resins, except during activities where gloves limit manual dexterity to the extent that fine equipment adjustments, repairs or quality control cannot be achieved while wearing gloves.
7. All containers used to store VOC-containing materials must be equipped with a tight fitting lid which is kept closed when the container is not in use so as to minimize VOC emissions to the atmosphere.

C. Compliance Determinations

1. Styrene and methyl methacrylate emissions from gel coat and resin applications shall be calculated using the ANSI standard (ANSI/ACMA/ICPA UEF-1-2011a, *“Estimating Emission Factors from Open Molding Composite Processes and Other Composite Processes”*) or other methods that have the prior approval of the Office of Air Resources.
2. For all other material, the emission factor shall be 100 lbs VOC or HAP emitted per 100 lbs VOC or HAP used.
3. Determination of VOC content of all materials shall be determined by EPA Reference Test Method 24 (40 CFR 60, Appendix A) or another test method that is approved by the Office of Air Resources and EPA.
4. Determination of HAP content of all materials shall be determined by EPA Reference Test Method 311 (40 CFR 63, Appendix A) or another test method that is approved by the Office of Air Resources and EPA.

5. Compliance with the VOC and/or HAP content limitations in Conditions A.1 and A.2 may be determined from manufacturers formulation data. Calculations will be used to determine the VOC and/or HAP content of any thinned material. If the VOC and or HAP content of any material, determined by a Method 24 or Method 311 test is greater than that indicated by the formulation data, the Method 24 or Method 311 test shall govern.

D. Recordkeeping and Reporting

1. The owner/operator shall maintain the following records:
 - a. The name, type, and identification number of each material containing VOC and/or HAP used at the facility, including but not limited to each resin, gel coat, accelerator, activator, adhesive, epoxy, promoter, putty, paint and cleaner.
 - b. A material safety data sheet (MSDS) for each material containing VOC and/or HAP used at the facility, showing the VOC and HAP content.
 - c. For each gel coat and resin, the VOC content in weight percent and the total weight per gallon.
 - d. For each clean-up material, each VOC component and the content in volume percent.
 - e. For each material containing VOC and/or HAP used at the facility, the quantity used and the amount of waste generated (in gallons or pounds) at the facility on a monthly basis.
2. For each gel coat and resin used at the facility, the owner/operator shall record the method used to apply the product and the amount used for each application.
3. For resins containing vapor suppressants, the VSR reduction factor for each specific resin/suppressant mixture must be obtained from the resin supplier, or must be determined at the facility according to the procedures detailed in the Vapor Suppressant Effectiveness Test Protocol, in Appendix A to 40 CFR Part 63, Subpart WWWW, National Emission Standards for Hazardous Air Pollutants: Reinforced Plastics Composites Production.
4. For each gel coat or resin which is diluted with any VOC the following records shall be kept on a daily basis in addition to those listed above:
 - a. Amount of gel coat or resin in gallons, to which the diluent was added.

- b. Amount of diluent added, in gallons, to each gel coat or resin including its respective identification numbers.
 - c. The weight percent of VOC in each gel coat or resin, as applied and as supplied and the VOC density of the diluents.
- 5. The owner/operator shall maintain the following records for wood products manufacturing operations:
 - a. The name, identification number and amount of each finishing, gluing and washoff material used each month at the facility.
 - b. Certified Product Data Sheets showing the VOC and VHAP content of each finishing, gluing and washoff material used at the facility.
 - c. The type and amount of VOC used as thinners and in cleaning operations each month at the facility.
- 6. The owner/operator shall maintain records of the training program for controlled spraying. These records shall include, at a minimum, the following:
 - a. A list of all current personnel, by name, who are required to be trained and a record of the date that each employee was trained.
 - b. An outline of the subjects covered in the initial and refresher training.
 - c. A copy of the controlled spraying performance evaluation for each employee.
- 7. The owner/operator shall, on a monthly basis, no later than 10 days after the first of the month, determine the total quantity of VOC and HAP discharged to the atmosphere from the entire facility. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.
- 8. The owner/operator shall notify the Office of Air Resources in writing within 15 days of determining that the total quantity of air contaminants discharged to the atmosphere, based upon a 12-month rolling average, from the entire facility exceeds the following:
 - a. VOC: 8,167 pounds per month
 - b. Any one HAP: 1,500 pounds per month
 - c. Any combination of HAPs: 4,000 pounds per month

9. The owner/operator shall, on a monthly basis, no later than 10 days after the first of the month, determine the total quantity of each listed toxic air contaminant in Appendix A of Air Pollution Control Regulation No. 9 discharged to the atmosphere from the entire facility. Monthly and 12-month rolling averages shall be calculated. The 12-month rolling average shall be used for comparison with emission limitations. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.
10. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of emissions discharged to the atmosphere from the entire facility, of any listed toxic air contaminant exceeds the minimum quantity for that contaminant as specified in Appendix A of Air Pollution Control Regulation No. 9.
11. The owner/operator shall, on a monthly basis, no later than 10 days after the first of the month, determine the total quantity of VOC discharged to the atmosphere from wood products manufacturing operations. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.
12. The owner/operator shall notify the Office of Air Resources, in writing within 15 days of determining that the total quantity of VOC discharged to the atmosphere, based upon a 12-month rolling average, from wood products manufacturing operations at this facility, exceeds 4,000 pounds of VOC per calendar month based upon a 12-month rolling average.
13. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations.
14. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information:
 - a. The name and location of the facility;
 - b. The subject source(s) that caused the noncompliance with the permit term;
 - c. The time and date of first observation of the incident of noncompliance;
 - d. The cause and expected duration of the incident of noncompliance;

- e. The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate.
 - f. The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.
15. The owner/operator shall notify the Office of Air Resources in writing of any planned physical or operational change to any equipment covered under this approval that would:
- a. Change the representation of the facility in the application.
 - b. Alter the applicability of any state or federal air pollution rules or regulations.
 - c. Result in the violation of any terms or conditions of this permit.
 - d. Qualify as a modification under APC Regulation No. 9.

Such notification shall include:

- Information describing the nature of the change.
- Information describing the effect of the change on the emission of any air contaminant.
- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulation and have the prior approval of the Director.

16. All records required in this permit shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

D. Other Permit Conditions

1. To the extent consistent with the requirements of this permit and applicable federal, state, and local laws, the facility shall be designed, constructed, and operated in accordance with the representation of the facility in the permit application.

2. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.

3. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source.