Vectorworks, Inc.
Vectorworks Marine, LLC
Facility ID No. 0090127
Brevard County

Title V Air Operation Permit Revision

Permit No. 0090127-011-AV
(Revision of Title V Air Operation Permit No. 0090127-010-AV)

Permitting Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, Central District

3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Telephone: (407) 897-2931
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FINAL PERMIT

PERMITTEE:
Vectorworks, Inc.
805 Marina Road
Titusville, Florida 32796

Permit No. 0090127-011-AV
Vectorworks Marine, LLC
Facility ID No. 0090127
Title V Air Operation Permit Revision

The purpose of this permit is to revise the Title V air operation permit for the above referenced facility. The Vectorworks Marine, LLC is located in Brevard County at 805 Marina Road, Titusville, Florida. UTM Coordinates are: Zone 17, 518.01 East and 3166.10 North. Latitude is: 28˚ 37′ 24″ North; and, Longitude is: 80˚ 48′ 50″ West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: January 20, 2012
Renewal Application Due Date: September 15, 2015
Expiration Date: April 27, 2016

Caroline Shine

_____

Caroline D. Shine
District Air Program Administrator
Central District

CDS/jr/ng

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

Vectorworks Marine, LLC manufactures Computer Numerical Control (CNC) plugs and conducts open and closed molding operations for boat manufacturing, fiberglass boats varying in size and purpose, and non-boat manufacturing related reinforced plastic composites. The facility consists of four main buildings: (1) Offices, (2) Machining and Office, (3) Infusion Molding and Large Lamination, and (4) Lamination and Assembly.

Also included in this permit are insignificant emission units and/or activities.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
001	Lamination/Gelcoating Operations
002	**Adhesive Mixing/Packaging and Related Activities**

Subsection C. Applicable Regulations.

Based on the Title V air operation permit revision application received September 08, 2011, this facility is a major source of hazardous air pollutants (HAP).

A summary of applicable regulations is shown in the following table.

Regulation	EU No.
40 CFR 63, Subpart A, NESHAP General Provisions	001
40 CFR 63, Subpart VVVV, Boat Manufacturing	001
40 CFR 63, Subpart WWWW, Reinforced Plastic Composites Production EU 002 is subject to 40 CFR 63 Subpart WWWW, but the emission unit is excluded from the requirements in this subpart.	001 and 002

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. **Not federally Enforceable.** Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.
[Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. To comply, procedures to minimize pollutant emissions shall include the following:

a) Tightly cover or close all VOC containers when they are not in use;
b) Tightly cover, where possible, all open troughs, basins, baths, tanks, etc. when they are not in use;
c) Maintain all piping, valves, fittings, etc. in good operating condition;
d) Prevent excessive air turbulence across exposed VOCs; and
e) Immediately confine and clean up VOC spills and make sure certain wastes are placed in closed containers for reuse, recycling, or proper disposal.

[Rule 62-296.320(1)(a), F.A.C.]

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement.
[Rule 62-296.320(4)(b)1, F.A.C.]

FW5. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

a) Frequent sweeping of outside areas.
b) Maintain filters in good working order.

c) Removal of generated particulate matter from buildings or work areas to prevent particulate from becoming airborne.
d) Enclosure or covering of activities or equipment where necessary to prevent unconfined particulate matter emissions in excess of 20 percent opacity.
e) Removal of generated particulate matter from paved and unpaved roads and parking areas to prevent re-entrainment.
f) Application of water to paved and unpaved roads and parking areas if a visible particulate plume is observed to extend more than 15 feet from the point of origin.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit application received August 13, 2010.]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW6. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year.
[Rule 62-210.370(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site:
http://www.dep.state.fl.us/air/emission/tvfee.htm.
[Rule 62-213.205, F.A.C.]

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective.
[Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]

FW9. Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:

a) Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
b) Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

Subsection A. Emissions Unit 001

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
001	Lamination/Gelcoating Operations The primary activity in the Machining and Office Building is the machining of CNC plugs and open molding operations. The spray application of polyurethane foam and limited lamination using resins, putties, and fillers also take place in this building. Emissions in this building are channeled through a 2-ft diameter exhaust fan and exit an exhaust stack terminating 40-ft above ground level. The Infusion Molding and Large Lamination Building is the site of lamination and gelcoating of large parts and molds. Infusion (closed) molding is the primary activity in this building. Emissions in this building are channeled through a 2-ft diameter exhaust fan and exit an exhaust stack terminating 40-ft above ground level. The Lamination and Assembly Building is the site of lamination and gelcoating of smaller pieces and the assembly of boats. Infusion (closed) molding is the primary activity in this building. Emissions in this building are channeled through two (2) exhaust fans with filters to eliminate particulate emissions prior to exhaustion to the atmosphere.

Essential Potential to Emit (PTE) Parameters

A.1. Hours of Operation. This emission unit may operate continuously (8,760 hours/year).
[Rule 62-210.200(PTE), F.A.C.; Construction Permit 0090127-012-AC]

Emission Limitations and Standards

A.2. Visible Emissions. Visible emissions shall not exceed 20 percent opacity.
[Rule 62-296.320(4)(b)1, F.A.C.]

A.3. VOC/HAP Emissions. The maximum **facility-wide** VOC/HAP emissions shall not exceed the following:

Pollutant	Emissions (tons per any consecutive 12-month period)
Total VOC	Less than 50.0
Combined HAP	Less than 50.0
Single HAP	Less than 50.0

a. Styrene emissions shall be determined using the following equation:

$$\text{Emissions (tons)} = \frac{Ms \times EF}{2000 \text{ lb/ton}}$$

where:

Ms = amount of styrene containing material used (in tons)
EF = emission factor (lb/ton) for styrene monomer content (from table below)

The applicable styrene emission factor shall be obtained (interpolated/extrapolated, if applicable) from the following table, in conjunction with the percent of available non-vapor suppressed (NVS) styrene monomer in the resin/gelcoat:

% Monomer	**Resin** Hand (Non-Spray) Layup**	**Resin** Mechanical Atomized Spray Layup**	**Resin Mechanical Nonatomized* Spray Layup**	**Gel Coat** Mechanical Atomized Spray Layup**	**Gelcoat Mechanical Nonatomized* Spray Layup**
18	39	51	39	138	67
19	41	54	41	148	70
20	43	58	43	158	79
21	45	61	45	168	88
22	48	64	47	178	97
23	50	68	49	189	106
24	52	71	51	200	115
25	55	75	54	211	124
26	57	78	56	221	133
27	59	82	58	233	142
28	62	86	60	244	151
29	64	90	62	256	160
30	67	94	64	269	169
31	69	97	66	281	178
32	71	102	68	295	187
33	74	105	71	308	196
34	77	112	74	322	205
35	80	118	77	336	214
36	83	127	80	354	223
37	86	136	83	371	232
38	90	146	86	390	241
39	92	156	89	408	250
40	95	166	93	427	259
41	98	176	96	446	268
42	100	187	99	466	278
43	112	192	102	477	287
44	117	202	105	495	296
45	122	212	108	513	305
46	127	221	111	532	314
47	133	232	115	551	323
48	138	242	118	571	332

% Monomer	Resin** Hand (Non-Spray) Layup	Resin** Mechanical Atomized Spray Layup	Resin Mechanical Nonatomized* Spray Layup	Gel Coat** Mechanical Atomized Spray Layup	Gelcoat Mechanical Nonatomized* Spray Layup
49	143	252	121	590	341
50	148	263	124	609	350

* *Nonatomized* means any application technology in which the resin is not broken into droplets or an aerosol as it travels from the application equipment to the surface of the part. Nonatomized resin application technology includes, but is not limited to, flowcoaters, chopper flowcoaters, and pressure fed resin rollers. In addition, the device must be operated according to the manufacturer's directions, including instructions to prevent the operation of the device at excessive spray pressures.

** *The emission factors in these columns are based on a weighted average using the following assumptions:*

- *Using the Unified Emission Factors - 20% by weight of the facility's usage of resins and gelcoats are for reinforced plastic composites production for items such as hatches and doors, but not for hulls and decks.*

- *Using the National Marine Manufacturer Association's Factors – 80% by weight of the facility's usage of resins and gelcoats are for items such as decks and hulls.*

[Rules 62-4.070(3), 62-210.200(PTE), and 62-213.440(1)(b)2, F.A.C.; Construction Permit 0090127-006-AC]

Test Methods and Procedures

A.4. Test Methods. Required tests shall be performed in accordance with the following reference methods:

EPA Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.
[Rules 62-297.310(7)(a)3. and 62-297.401, F.A.C.]

A.5. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

A.6. Compliance Tests Prior To Renewal. Compliance tests shall be performed for **EU 001**, once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Condition **A.2.**
[Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

Recordkeeping and Reporting Requirements

A.7. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority: *(Include here reports that are specific to the unit based on state rule, federal rule or AC permit, and that are not already covered by Appendix RR.)*

Report	Reporting Deadline	Related Condition(s)
A Notification of Compliance Status as specified in §63.9(h)	No later than 30 calendar days after the end of the first 12-month averaging period after your facility's compliance date.	Subpart VVVV
A Notification of Compliance Status as specified in §63.9(h)	No later than 30 calendar days after your facility's compliance date.	Subpart WWWW
Compliance report	Semiannually according to the requirements in §63.5910(b).	Subpart VVVV, Subpart WWWW
An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan	By fax or telephone within 2 working days after starting actions inconsistent with the plan. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority. (§63.10(d)(5)(ii)).	Subpart VVVV, Subpart WWWW

[Rule 62-213.440, F.A.C.]

A.8. Other Reporting Requirements. See Appendix NESHAP A, VVVV, WWWW, and Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

A.9. Monthly Recordkeeping Requirements. In order to demonstrate compliance with Specific Condition No. **A.3.**, the permittee shall maintain a monthly log at the facility for a period of at least 5 years from the date the data is recorded and made available to the Department upon request. The log shall contain the following:

a. Facility Name, Facility ID No. (i.e., 0090127);

b. Month and year of record;

c. The consecutive 12-month totals of Total VOC emissions, combined HAP emissions, and single HAP emissions, in tons;

d. The consecutive 12-month totals of the usage of gel-coats, resins, and other VOC/HAP containing materials;

e. The total for each month of the usage of gel-coats, resins, and other VOC/HAP containing materials; and

f. The VOC/HAP content of each gel-coat and resin applied.

The monthly logs shall be completed by the end of the following month. Calculations performed to demonstrate compliance shall be based on the maximum achievable control technology (MACT) model point value (emission averaging) option, as described in §63.5710.

Note: A consecutive 12 months total is equal to the total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive 12-months total treats each month of the year as the end of a 12-months period. A 12-months total is not a year-to-date total. Facilities or emission units that have not been operating for 12 months should retain 12 months totals using whatever number of months of data are available until such a time as a consecutive 12 months total can be maintained each month.
[Rules 62-4.070(3) and 62-213.440, F.A.C.]

A.10. **Additional Recordkeeping Requirements: Records specified in Specific Condition No. A.9. above, must document the method, calculations, and formulas used in determining the usage rate and the emission rate. All calculations, including those used to derive emissions, must be clearly documented, and may be presented in the form of a template of sample calculations and available for review on site by the Department.**
[Rule 62-4.070(3), F.A.C.]

Other Requirements

A.11. Federal Rule Requirements. In addition to the specific conditions listed above, Emissions Unit No. 001 is also subject to the applicable requirements contained in 40 CFR 63, Subpart A – General Provisions, 40 CFR 63, Subpart VVVV – Boat Manufacturing, and 40 CFR 63, Subpart WWWW – Reinforced Plastic Composites Production. The conditions of both Subpart VVVV and Subpart WWWW are incorporated into this permit (attached and part of this permit, See Section IV. Appendices).
[Rule 62-213.440, F.A.C.; and Construction Permits 0090127-006-AC and 0090127-009-AC]

The Following Appendices Are Enforceable Parts of This Permit:

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
002	**Adhesive Mixing/Packaging and Related Activities** **The adhesive mixing and packaging takes place in a separate subsection of the Lamination and Assembly Building. Adhesive components are placed into closed mixers having capacities ranging from 100 to 500 gallons. After mixing, the mixing pot is then raised above a 55-gallon drum or a dispenser cartridge and a cylinder forces the mixture out of the pot in controlled volumes. Emissions are routed to the atmosphere through a 2-ft. diameter, approximately 10,000 cubic ft. per minute stack.**

B.1. Hours of Operation. This emission unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.; Construction Permit 0090127-012-AC]

Emission Limitations and Standards

B.2. Visible Emissions. Visible emissions shall not exceed 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.]

B.3. VOC/HAP Emissions. The maximum **facility-wide** VOC/HAP emissions shall not exceed the following:

Pollutant	**Emissions** (tons per any consecutive 12-month period)
Total VOC	Less than 50.0
Combined HAP	Less than 50.0
Single HAP	Less than 50.0

B.4. Monthly Recordkeeping Requirements. In order to demonstrate compliance with Specific Condition No. **B.3.**, the permittee shall maintain a monthly log at the facility for a period of at least 5 years from the date the data is recorded and made available to the Department upon request. The log shall contain the following:

a. Facility Name, Facility ID No. (i.e., 0090127);

b. Month and year of record;

c. The consecutive 12-month totals of Total VOC emissions, combined HAP emissions, and single HAP emissions, in tons;

d. The consecutive 12-month totals of the usage of adhesive(s), in tons;

e. The total for each month of the usage of adhesive(s); in tons;

f. The VOC/HAP content of adhesive(s).

The monthly logs shall be completed by the end of the following month.

Note: A consecutive 12 months total is equal to the total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive 12-months total treats each month of the year as the end of a 12-months period. A 12-months total is not a year-to-date total. Facilities or emission units that have not been operating for 12 months should retain 12 months totals using whatever number of months of data are available until such a time as a consecutive 12 months total can be maintained each month.
[Rules 62-4.070(3) and 62-213.440, F.A.C.]

B.5. **Additional Recordkeeping Requirements: Records specified in Specific Condition No. B.4. above, must document the method, calculations, and formulas used in determining the usage rate and the emission rate. All calculations, including those used to derive emissions, must be clearly documented, and may be presented in the form of a template of sample calculations and available for review on site by the Department. [Rule 62-4.070(3), F.A.C.]**

Other Requirements

B.6. Federal Rule Requirements. In addition to the specific conditions listed above, Emissions Unit No. 002 is also subject to 40 CFR 63 Subpart WWWW–Reinforced Plastic Composites Production; however, Emission Unit No.002 **is excluded from any requirements in this subpart.**

[Rule 62-204.800(11)(b)79., F.A.C.; and §63.5790(b), **§63.5790(c),** and §63.5787 of 40 CFR 63 Subpart WWWW]

{Permitting Note: **Repair or production materials that do not contain resin or gel coat** (§63.5790(c)) are excluded from any requirements of the subpart. Additionally, the EU 002 operations are not associated with the manufacture of reinforced plastic composite parts.}

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NESHAP, Subpart A – General Provisions.
Appendix NESHAP, Subpart VVVV – Boat Manufacturing.
Appendix NESHAP, Subpart WWWW – Reinforced Plastic Composites Production.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.

REFERENCED ATTACHMENTS.

The Following Attachments Are Included for Applicant Convenience:

Table H, Permit History