Dusky Marine
Facility ID No.: 0112597
Broward County

Title V Air Operation Permit Renewal
FINAL Permit Project No.: 0112597-003-AV

Permitting and Compliance Authority:
Broward County Environmental Protection and Growth Management Department
Broward County Pollution Prevention, Remediation and Air Quality Division (PPRAQD)
One North University Drive, Suite 203
Plantation, Florida 33324
954-519-1220 * Fax: 954-519-1495

Abbreviations and Definitions

FDEP:	Florida Department of Environmental Protection
MACT	Maximum achievable control technology
NESHAP:	National Emissions Standards for Hazardous Air Pollutants
PPRAQD:	Broward County Pollution Prevention, Remediation and Air Quality Division
VVVV	NESHAP for Boat Manufacturing

[Appendix 4 has list of definitions for Subpart VVVVV. Appendix A, Glossary < A-1.doc> contains additional abbreviations.]

Title V Air Operation Permit Renewal
FINAL Permit Project No.: 0112597-003-AV

Table of Contents

Section	Page Number
Placard Page	1
I. Facility Information	2
A. Facility Description.	
B. Summary of Emissions Unit ID No(s). and Brief Description(s).	
C. Relevant Documents.	
II. Facility-wide Conditions	4
III. Emissions Unit(s) and Conditions	
[A] EU-001 Fiberglass Boat Manufacturing Operations	6
IV. Appendices	
Appendix 1, Determining the HAP Content of Materials	12
Appendix 2, Demonstrate Compliance using Emissions Averaging	14
Appendix 3, Demonstrate Compliance Using Compliant Materials	16
	17
Appendix 4, List of Definitions for Subpart VVVVV	20
Appendix 5, Applicability of General Provisions to Subpart VVVV	
Appendix I-1, List of Insignificant Emissions Units and/or Activities < 011259 g.doc>	
Appendix RR, Facility-wide Reporting Requirements. < Appendix - RR.doc>	
Appendix TV, Title V General Conditions < TV-6.doc>	
Appendix A, Glossary < A-1.doc>	
V. Attachments	
Attachment H-1, Permit History < 0112597h.doc>	

FINAL PERMIT

Permittee:
Dusky Marine, Inc.

Permit No.: 0112597-003-AV
Facility: Dusky Marine
Facility ID No.: 0112597
SIC No(s).: 37, 3732
Project: Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the Dusky Marine fiberglass boat manufacturing facility which is located in Broward County at 110 N Bryan Rd, Dania Beach, Florida 33004. UTM Coordinates are: (Latitude: 26° 03' 16" North and Longitude: 80° 09' 20" West)

This Title V Air Operation Permit Renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Effective Date: 6/28/2013
Renewal Application Due Date: 11/15/2017
Expiration Date: 6/28/2018

_____
Daniela Banu
Air Quality Administrator
Broward County Pollution Prevention, Remediation and Air Quality Division

/SJ

Subsection A. Facility Description.

Dusky Marine, Inc. manufactures small to mid-size fiberglass boats. The northern most building in the facility is primarily for service on small boats and a ship store. The middle building is used as a showroom, storage for finished boats, rigging, accessorizing, assembly of hull and deck after lamination, storage of hatches and hardware, and parts room. The southernmost room is used for the production of boats and is the main lamination building. Lamination and gel-coating activities are conducted using controlled spray application of resin on open molds. Also included in this permit are miscellaneous insignificant emissions units and/or activities.

Process Flowchart

Clean Mold
↓
Wax Mold
↓
Apply Gel Coat
↓
Cure
↓
Resin Application
↓
Cure
↓
Extract from Mold
↓
Trim to Size
↓
Sand
↓
Wipe Dowm
↓
Trim out Boat
↓
Clean Tools

Subsection B. Summary of Emissions Units.

Section	EU No.	Brief Description
	Regulated Emissions Units	
[A]	001	*Fiberglass Boat Manufacturing Operations* Fiberglass boat manufacturing operations include: controlled spray application on open molds for lamination and gel coating of the deck, hull, and small parts; resin and gel coat mixing; carpet and fabric adhesive operations; and resin and gel coat application equipment cleaning operations.

The facility is a major source of HAPs. A summary of applicable regulations is shown in the following table.

Regulation	**EU No(s).**
40 CFR 63, Subpart A, NESHAP General Provisions	001
40 CFR 63 NESHAP Subpart VVVV	001

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

FW1. General Reporting, and TV Conditions. The owner or operator shall comply with the Facility-wide Reporting Requirements and Title V General Conditions in Appendices RR and TV, respectively. [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 VOC Emissions or Organic Solvents (OS) Emissions. The owner or operator shall allow no person to store, pump, handle process, load, unload or use in any process or installation, VOC or OS without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. [Rule 62-296.320(1), 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 (PM). No person shall cause, let, permit, suffer or allow the emissions of unconfined PM 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.

PM shall be controlled by work practices and by portable shop vacuum type dust collection devices. Also, PM shall be confined to the building and not discharged to the atmosphere. [Rule 62-296.320(4)(c), F.A.C., Permit Application]

FW6. Circumvention**.** No person shall circumvent any air pollution device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.,]

FW7. Not Federally Enforceable.

(1) Concealment. No person shall build, erect, install, or use any article, machine, equipment or other contrivance, the use of which will conceal any emission which would otherwise constitute a violation of any provisions of Broward County Codes.

(2) Maintenance. No person shall operate any air pollution control equipment or systems without proper and sufficient maintenance to assure compliance with Broward County Codes. [Broward County Code, Sec. 27-175(b) & (d)]

FW8. General Provisions. The owner or operator shall comply with the applicable requirements of the General Provisions in 40 CFR part 63, subpart A, as specified in Table 8 to subpart VVVV (see Appendix 5, below). [40 CFR 63.5773]

Annual Reports and Fees

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

FW9. Annual Operating Report. The owner or operator shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the PPRAQD by April 1st of each year. If the report is submitted using the FDEP electronic annual operating report software (EAOR), there is no requirement to submit a copy to PPRAQD. [Rule 62-210.370(3), F.A.C.]

FW10. 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.]

FW11. Annual Statement of Compliance. The owner or operator shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit and to the USEPA 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.]

FW12. Prevention of Accidental Releases (Section 112(r) of the Clean Air Act (CAA). If and when the facility becomes subject to 112(r), the owner or operator 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

Subsection [A]
This section addresses the following emissions unit:

E.U. ID No.	Brief Description
-001	Fiberglass Boat Manufacturing Operations

This emission unit consists of open molding Fiberglass manufacturing processes. There are no add-on pollution control devices.
{Permitting Note. This emission unit is regulated under Rule 62-204.800 (b) (78), F.A.C which adopts by reference 40 CFR 63, Subpart VVVV of the NESHAP for Fiberglass Boat Manufacturing.}

Essential Potential to Emit (PTE) Parameters

A.1. Capacity. The potential pollutant emissions from the source operating at maximum capacity are as follow:

Pollutant Description	Potential Emissions(TPY)
Methyl methacrylate	7
Styrene	77
Total Hazardous Air Pollutants	86
Volatile Organic Compounds	86

[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE)]

Emission Limitations and Standards

A.2. Emission Standard for Open Molding Resin and Gel Coat Operations.

(a) *HAP Limit*. The total HAP that can be emitted from all open molding operations at the facility shall not exceed the emission limit (HAP Limit) specified in the following equation (Eq. 1), based on a 12-month rolling average:

$$HAP\,Limit = \left[46(M_R) + 159(M_{PG}) + 291(M_{CG}) + 54(M_{TR}) + 214(M_{TG})\right] \quad - \quad (\text{Eq.1})$$

Where:
HAP Limit= total allowable organic HAP emitted from the open molding operations, kilograms.
M_R = mass of non exempted production resin used in the past 12 months, megagrams
M_{PG} = mass of non exempted pigmented gel coat used in the past 12 months, megagrams
M_{CG} = mass of non exempted clear gel coat used in the past 12 months, megagrams
M_{TR} = mass of non exempted tooling resin used in the past 12 months, megagrams
M_{TG} = mass of non exempted tooling gel coat used in the past 12 months, megagrams

(b) *Exempted Material*. The following materials are exempt from the open molding emission limit specified in Equation 1 above.

(1) Production resins (including skin coat resins) applied with non atomizing (non-spray) resin application equipment that must meet specifications for use in military vessels or must be approved by the U.S. Coast Guard for use in the construction of lifeboats, rescue boats, and other life-saving appliances approved under 46 CFR subchapter Q or the construction of small passenger vessels regulated by 46 CFR subchapter T.

(2) Pigmented, clear, and tooling gel coat used for part or mold repair and touch up. The total gel coat materials included in this exemption must not exceed 1 percent by weight of all gel coat used at the facility on a 12-month rolling-average basis.

(3) Pure, 100 percent vinylester resin used for skin coats. This exemption does not apply to blends of vinylester and polyester resins used for skin coats. The total resin materials included in the exemption cannot exceed 5 percent by weight of all resin used at the facility on a 12-month rolling-average basis.

[40 CFR 63.5698]

{Permitting Note. See Condition A.6 for options for complying with the HAP limit.}

A.3. Resin and Gel Coat Mixing Operations Standard. The owner or operator shall implement the following work practice standards:

(a) *Containers.* All resin and gel coat mixing containers with a capacity equal to or greater than 208 liters, including those used for on-site mixing of putties and polyputties, must have a cover with no visible gaps in place at all times.

(b) *Exemption.* The work practice standard in paragraph (a) of this section does not apply when material is being manually added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.

[40 CFR 63.5731 (a), (b)]

{Permitting Note. See Condition A.7 for demonstrating compliance with the Resin and Gel Coat Mixing Operations Standards.}

A.4. Resin and Gel Coat Application Equipment Cleaning Operations Standards. The owner or operator shall implement the following work practice standards:

(a) *Routine flushing.* For routine flushing of resin and gel coat application equipment (e.g., spray guns, flowcoaters, brushes, rollers, and squeegees), the owner or operator shall use a cleaning solvent that contains no more than 5 percent organic HAP by weight. For removing cured resin or gel coat from application equipment, no organic HAP content limit applies.

(b) *Containers.* The owner or operator shall store organic HAP-containing solvents used for removing cured resin or gel coat in containers with covers. The covers must have no visible gaps and must be in place at all times, except when equipment to be cleaned is placed in or removed from the container. On containers with a capacity greater than 7.6 liters, the distance from the top of the container to the solvent surface must be no less than 0.75 times the diameter of the container. Containers that store organic HAP-containing solvents used for removing cured resin or gel coat are exempt from the requirements of 40 CFR part 63, subpart T. Cured resin or gel coat means resin or gel coat that has changed from a liquid to a solid.

[40 CFR 63.5734]

{Permitting Note. See Condition A.8 for complying with the work practice standards.}

A.5. Carpet and fabric adhesive operations. The owner or operator shall use carpet and fabric adhesives that contain no more than 5 percent organic HAP by weight.

[40 CFR 63.5740(a)]

{Permitting Note. See Condition A.9 for complying with the carpet and fabric adhesive standards.}

Compliance Procedures

A.6. Demonstrating Compliance with the Open Molding Emission Limit (see Condition A.2)

{Permitting Note. In accordance with 40 CFR 63.5701, the owner or operator is using the emissions averaging option (i.e. Condition A.6.(a)) to demonstrate compliance with the HAP emission limit (see Condition A.2). Those operations and materials not included in the emissions average shall comply with the compliant materials option (i.e. Condition A.6.(b)).}

(a) *Emissions Averaging Option.*

The Owner Or Operator shall demonstrate compliance with the open molding emission limit by performing the steps in paragraphs (a)(1) through (5) of this section at the end of each month (i.e. 12 times a year), on a 12-month rolling-average basis (40 CFR 63.5710 (a)):

(1) Use the methods specified in 63.5758 to determine the organic HAP content of resins and gel coats (see Appendix 1 below).
(2) Complete the calculations described in 40 CFR 63.5710 (see Appendix 2 below) to show that the organic HAP emissions do not exceed the limit specified in 40 CFR 63.5698 (see Condition A.2).
(3) Keep records as specified in Condition A.17.
(4) Submit any revised implementation plan to PPRAQD (see Condition A.11).
(5) Submit semiannual compliance reports to the PPRAQD as specified in 40 CFR 63.5764 (see Condition A.10).

(b) *Compliant Materials Option*.
Those operations and materials not included in the emissions average in A.5, (a) above shall comply with the compliant materials option by performing the following steps:
(1) Use the methods specified in 40 CFR 63.5758 (see Appendix 1 below) to determine the organic HAP content of resins and gel coats.
(2) Complete the calculations described in 40 CFR 63.5713 to show that the weighted-average organic HAP content does not exceed the limit specified in Table 2 to this subpart (see Appendix 3 below).
(3) Keep records as specified in Condition A.18.
(4) Submit semiannual compliance reports to the Administrator as specified in 40 CFR 63.5764 (see Condition A.10).
[40 CFR 63.5704 (a), (b)]

A.7. Demonstrating Compliance with the Resin and Gel Coat Mixing Operation Standards (see Condition A.3).
To demonstrate compliance with the resin and gel coat mixing operations standards, the owner or operator shall visually inspect all mixing containers subject to this standard at least once per month. The inspection should ensure that all containers have covers with no visible gaps between the cover and the container, or between the cover and equipment passing through the cover.
[40 CFR 63.5731(c)]

A.8. Demonstrating Compliance with the Resin and Gel Coat Application Equipment Cleaning Operation Standards (see Condition A.4). To demonstrate compliance with the resin and gel coat application equipment cleaning operation standards, the owner or operator shall conduct the following activities:
(a) Determine and record the organic HAP content of the cleaning solvents subject to the standards specified in 40 CFR 63.5734 (see Condition A.4) using the methods specified in 40 CFR 63.5758 (see Appendix 1 below).
(b) For recycle cleaning solvents on site, use documentation from the solvent manufacturer or supplier or a measurement of the organic HAP content of the cleaning solvent as originally obtained from the solvent supplier for demonstrating compliance, subject to the conditions in 40 CFR 63.5758 (see Appendix 1 below) for demonstrating compliance with organic HAP content limits.
(c) At least once per month, visually inspect any containers holding organic HAP-containing solvents used for removing cured resin and gel coat to ensure that the containers have covers with no visible gaps. Keep records of the monthly inspections and any repairs made to the covers.
[40 CFR 63.5737]

A.9. Demonstrating Compliance with the Carpet and Fabric Adhesive Operation Standards (see Condition A.5).
To demonstrate compliance with the carpet and fabric adhesive operation standards, the owner or operator shall determine and record the organic HAP content of the carpet and fabric adhesives using the methods in § 63.5758 (see Appendix 1 below).
[40 CFR 63.5740(b)]

Notifications, Recordkeeping and Reporting Requirements
{Permitting Note. The applicable notifications in Table 7 to subpart VVVV were previously submitted by the dates in the table. The initial compliance date was August 23, 2004.}

A.10. Reporting Requirements. The owner or operator shall submit to the PPRAQD the applicable reports specified in paragraphs (b) through (e) of this section.

(a) [blank]

(b) *Submittal Dates*. Unless the PPRAQD has approved a different schedule for submission of reports under 40 CFR 63.10(a), the owner or operator shall submit each report by the dates in paragraphs (b)(1) through (5) of this section.

(1), (2) [Blank]

(3) Each compliance report must cover the applicable semiannual reporting period from January 1 through June 30 or from July 1 through December 31.

(4) Each compliance report must be postmarked or delivered no later than 60 calendar days after the end of the semiannual reporting period.

(5) If PPRAQD has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the owner or operator may submit the compliance reports according to the dates the PPRAQD has established.

(c) *Report Content*. The compliance report must include the information specified in paragraphs(c)(1) through (7) of this section.

(1) Company name and address.

(2) A statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the report.

(3) The date of the report and the beginning and ending dates of the reporting period.

(4) A description of any changes in the manufacturing process since the last compliance report.

(5) A statement or table showing, for each regulated operation, the applicable organic HAP content limit, application equipment requirement, or MACT model point value averaging provision with which the owner or operator is complying. The statement or table must also show the actual weighted-average MACT model point value for each operation during each of the rolling 12-month averaging periods that end during the reporting period.

(6) If the owner or operator was in compliance with the emission limits and work practice standards during the reporting period, the owner or operator must include a statement to that effect.

(7) If the owner or operator deviated from an emission limit or work practice standard during the reporting period, the owner or operator must also include the information listed in paragraphs (c)(7)(i) through (iv) of this section in the semiannual compliance report.

(i) A description of the operation involved in the deviation.

(ii) [Reserved.]

(iii) A description of any corrective action taken to minimize the deviation and actions taken to prevent it from happening again.

(iv) A statement of whether or the facility was in compliance for the 12-month averaging period that ended at the end of the reporting period.

[40 CFR 63.5764]

A.11. Report - Revised Implementation Plan.

The owner or operator shall submit any revised implementation plan with the next semiannual compliance report which covers the periods from January 1 through June 30 or from July 1 through December 31.

[40 CFR 63.5707 (e)]

{Permitting Note. The owner or operator submitted the implementation plan to the PPRAQD prior to August 23, 2004 (subpart VVVV compliance date). The implementation plan describes the steps to bring the open molding operations into compliance. For each operation included in the emissions average (see Condition A.6 (a)), the implementation plan must include the following elements:

(i) A description of each operation included in the average.

(ii) The maximum organic HAP content of the materials used, the application method used (if any atomized resin application methods are used in the average), and any other methods used to control emissions.

(iii) Calculations showing that the operations covered by the plan will comply with the open molding emission limit specified in 40 CFR 63.5698 (see Condition A.2).}

A.12. Records – Format and Retention Period. The owner or operator shall:

(a) Ensure that records are readily available and maintained in a manner that can be easily inspected and reviewed.

(b) Each record shall be kept for 5 years following the date that the record is generated.

(c) Each record shall be kept on site for at least 2 years after the date that the record is generated. Records can be kept offsite for the remaining 3 years.

(d) Records can be kept on paper or an alternative media, such as microfilm, computer, computer disks, magnetic tapes, or on microfiche.

[40 CFR 63.5770]

A.13. Records - General. The owner or operator shall maintain the following records:

(a) A copy of each notification and report that was submitted to comply with subpart VVVV.

(b) All documentation supporting any notification or report that was submitted.

(c) Records of: The total amounts of open molding production resin, pigmented gel coat, clear gel coat, tooling resin, and tooling gel coat used per month, the weighted-average organic HAP contents for each operation, expressed as weight-percent, and the amounts of production resin and tooling resin applied by atomized and nonatomized methods.

[40 CFR 63.5767]

A.14. Records - Resin and Gel Coat Application Equipment Cleaning. The owner or operator shall keep the following records:

(a) Records of organic HAP content of cleaning solvents used.

(b) Documentation from the recycle cleaning solvent manufacturer or supplier or a measurement of the organic HAP content of the cleaning solvent as originally obtained from the solvent supplier.

(c) Monthly inspections records of containers holding organic HAP-containing solvents used for removing cured resin and gel coat and any repairs made to the covers.

[40 CFR 63.5737]

A.15. Records - Resin and Gel Coat Mixing Operations The owner or operator shall keep records of which mixing containers are subject to this standard (see Condition A.7) and the results of the inspections, including a description of any repairs or corrective actions taken.

[40 CFR 63.5731(d)]

A.16. Records - Carpet and Fabric Adhesives.

The owner or operator shall keep records of the organic HAP content of the carpet and fabric adhesives.

[40 CFR 63.5740(b)]

A.17. Records - Emissions Averaging Compliance Data. The owner or operator shall keep the following records:

(i) Hazardous air pollutant content.

(ii) Amount of material used per month.

(iii) Application method used for production resin and tooling resin. This record is not required if all production resins and tooling resins are applied with non-atomized technology.

(iv) Calculations performed to demonstrate compliance based on MACT model point values, as described in 40 CFR 63.5710 (see Appendix 2 below).

[40 CFR 63.5704 (a) (3)]

A.18. Records - Compliant Materials Data.

For operations and materials not included in the emissions average in Condition A.5, (a) above that have to comply with the compliant materials option, the owner or operator shall keep the following records:

(i) Hazardous air pollutant content.

(ii) Application method for production resin and tooling resin. This record is not required if all production resins and tooling resins are applied with nonatomized technology.

(iii) Amount of material used per month. This record is not required for an operation if all materials used for that operation comply with the organic HAP content requirements.

(iv) Calculations performed, if required, to demonstrate compliance based on weighted-average organic HAP content as described in Appendix 3 below.

[40 CFR 63.5704 (b) (3)]

A.19. Record - Implementation Plan. The owner or operator shall keep an updated implementation plan (see Condition A.11) on site and provide it to the PPRAQD when requested.
[40 CFR 63.5704(d)]

Appendix 1

Determining the HAP Content of Materials

[40 CFR 63.5758]

The owner or operator shall use one of the options in paragraphs (a)(1) through (6) of this section to determine the HAP content for each material used.

(a)(1) *Method 311 (appendix A to 40 CFR part 63).*

(a)(2) [Reserved]

(a)(3) ASTM D1259-85 (Standard Test Method for Nonvolatile Content of Resins).

(a)(4) *Alternative test method.* Determining the mass fraction of organic HAP after obtaining prior approval by the US EPA according to the procedure in Sec. 63.7(f) to submit an alternative test method for approval.

(a)(5) *Supplier or manufacturer information of the material.*

(i) Include in the organic HAP total each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen)is 0.5 percent of the material by mass, it is not included in the organic HAP total.

(ii) If the organic HAP content is provided by the material supplier or manufacturer as a range, then use the upper limit of the range for determining compliance. If a separate measurement of the total organic HAP content using the methods specified in paragraphs (a)(1) through (4) of this section exceeds the upper limit of the range of the total organic HAP content provided by the material supplier or manufacturer, then use the measured organic HAP content to determine compliance.

(iii) If the organic HAP content is provided as a single value, assume the value is a manufacturing target value and actual organic HAP content may vary from the target value. If a separate measurement of the total organic HAP content using the methods specified in paragraphs (a)(1) through (4) of this section is less than 2 percentage points higher than the value for total organic HAP content provided by the material supplier or manufacturer, then the owner or operator may use the provided value to demonstrate compliance. If the measured total organic HAP content exceeds the provided value by 2 percentage points or more, then use the measured organic HAP content to determine compliance.

(a)(6) *Solvent blends.* Solvent blends may be listed as single components for some regulated materials in certifications provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP content of the materials. When detailed organic HAP content data for solvent blends are not available, use the values for organic HAP content that are listed in Table 5 or 6 to Subpart VVVV (see below). Use Table 6 to Subpart VVVV only if the solvent blends in the materials used do not match any of the solvent blends in Table 5 to Subpart VVVV and it is known that the blend is either aliphatic or aromatic. However, if test results indicate higher values than those listed in Table 5 or 6 to Subpart VVVV, then the test results must be used for determining compliance.

Table 5 to Subpart VVVV—Default Organic HAP Contents of Solvents and Solvent Blends

As specified in 40 CFR 63.5758(a)(6), when detailed organic HAP content data for solvent blends are not available, the owner or operator may use the values in the following table:

Solvent/solvent blend	CAS No.	Average organic HAP content, percent by mass	Typical organic HAP, percent by mass
1 Toluene	108–88–3	100	Toluene.
2 Xylene(s)	1330–20–7	100	Xylenes, ethylbenzene.
3 Hexane	110–54–3	50	n-hexane.
4 n-hexane	110–54–3	100	n-hexane.
5 Ethylbenzene	100–41–4	100	Ethylbenzene.
6 Aliphatic 140		0	None.
7 Aromatic 100		2	1% xylene, 1% cumene.
8 Aromatic 150		9	Naphthalene.
9 Aromatic naptha	64742–95–6	2	1% xylene, 1% cumene.
10 Aromatic solvent	64742–94–5	10	Naphthalene.

11 Exempt mineral spirits	8032–32–4	0	None.
12 Ligroines (VM & P)	8032–32–4	0	None.
13 Lactol spirits	64742–89–6	15	Toluene.
14 Low aromatic white spirit	64742–82–1	0	None.
15 Mineral spirits	64742–88–7	1	Xylenes.
16 Hydrotreated naphtha	64742–48–9	0	None.
17 Hydrotreated light distillate	64742–47–8	0.1	Toluene.
18 Stoddard solvent	8052–41–3	1	Xylenes.
19 Super high-flash naphtha	64742–95–6	5	Xylenes.
20 Varol solvent	8052–49–3	1	0.5% xylenes, 0.5% ethyl benzene.
21 VM & P naphtha	64742–89–8	6	3% toluene, 3% xylene.
22 Petroleum distillate mixture	68477–31–6	8	4% naphthalene, 4% biphenyl.

Table 6 to Subpart VVVV—Default Organic HAP Contents of Petroleum Solvent Groups

As specified in 40 CFR 63.5758(a)(6), when detailed organic HAP content data for solvent blends are not available, the owner or operator may use the values in the following table:

Solvent type	Average organic HAP content, percent by mass	Typical organic HAP, percent by mass
Aliphatic (Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naptha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.).	3	1% Xylene, Toluene, and 1% Ethylbenzene.
Aromatic (Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.).	6	4% Xylene, Toluene, and 1% Ethylbenzene.

Appendix 2

Demonstrate Compliance using Emissions Averaging

[40 CFR 63.5710]

(a) Frequency. Compliance using the emissions averaging option is demonstrated on a 12-month rolling-average basis and is determined at the end of every month (12 times per year).

(b) HAP emissions. At the end of every month, use equation 2 of this section to demonstrate that the organic HAP emissions from those operations included in the average do not exceed the emission limit in 40 CFR 63.5698 (see Condition A.2) calculated for the same 12-month period. (Include terms in equation 1 of 40 CFR 63.5698 and equation 2 of this section for only those operations and materials included in the average.)

$$HAPemissions = (PV_R)(M_R) + (PV_{PG})(M_{PG}) + (PV_{CG})(M_{CG}) + (PV_{TR})(M_{TR}) + (PV_{TG})(M_{TG}) \qquad (Eq.2)$$

Where:

HAP emissions = Organic HAP emissions calculated using MACT model point values for each operation included in the average, kilograms.

PV_R = Weighted-average MACT model point value for production resin used in the past 12 months, kilograms per megagram.

M_R = Mass of production resin used in the past 12 months, megagrams.

PV_{PG} = Weighted-average MACT model point value for pigmented gel coat used in the past 12 months, kilograms per megagram.

M_{PG} = Mass of pigmented gel coat used in the past 12 months, megagrams.

PV_{CG} = Weighted-average MACT model point value for clear gel coat used in the past 12 months, kilograms per megagram.

M_{CG} = Mass of clear gel coat used in the past 12 months, megagrams.

PV_{TR} = Weighted-average MACT model point value for tooling resin used in the past 12 months, kilograms per megagram.

M_{TR} = Mass of tooling resin used in the past 12 months, megagrams.

PV_{TG} = Weighted-average MACT model point value for tooling gel coat used in the past 12 months, kilograms per megagram.

M_{TG} = Mass of tooling gel coat used in the past 12 months, megagrams.

(c) Weighted-average MACT model point value. At the end of every month, use equation 3 of this section to compute the weighted-average MACT model point value for each open molding resin and gel coat operation included in the average.

$$PV_{OP} = \frac{\sum_{i=1}^{n} (M_I)(PV_I)}{\sum_{i=1}^{n} (M_I)} \qquad (Eq.3)$$

Where:

PVop = weighted-average MACT model point value for each open molding operation (PVR, PVPG, PVCG, PVTR, and PVTG) included in the average, kilograms of HAP per megagram of material applied.

Mi = mass of resin or gel coat i used within an operation in the past 12 months, megagrams.

n = number of different open molding resins and gel coats used within an operation in the past 12 months.

PVi = the MACT model point value for resin or gel coat i used within an operation in the past 12 months, kilograms of HAP per megagram of material applied. (see paragraph (d))

(d) Estimating PVi The owner or operator shall use the equations in Table 3 of Subpart VVVV to calculate the MACT model point value (PVi) for each resin and gel coat used in each operation in the past 12 months.

Table 3 to Subpart VVVV—MACT Model Point Value Formulas for Open Molding Operations

For this operation—	And this application method—	Use this formula to calculate the MACT model plant value for each resin and gel coat—
1. Production resin, tooling resin	a. Atomized	0.014 × (Resin HAP%) 2.425
	b. Atomized, plus vacuum bagging with roll-out ……..	0.01185 × (Resin HAP%) 2.425
	c. Atomized, plus vacuum bagging without roll-out ……	0.00945 × (Resin HAP%) 2.425
	d. Nonatomized	0.014 × (Resin HAP%) 2.275
	e. Nonatomized, plus vacuum bagging with roll-out …….	0.0110 × (Resin HAP%) 2.275
	f. Nonatomized, plus vacuum bagging without roll-out ……	0.0076 × (Resin HAP%) 2.275
2. Pigmented gel coat, clear gel coat, tooling gel coat	All methods	0.445 × (Gel coat HAP%) 1.675

(e) If the organic HAP emissions, as calculated in paragraph (b) of this section, are less than the organic HAP limit calculated in 40 CFR 63.5698(b) (Equation 1) for the same 12-month period, then the source is in compliance with the emission limit in 40 CFR 63.5698 (see Condition A.2) for those operations and materials included in the average.

Appendix 3

Demonstrate Compliance Using Compliant Materials

[40 CFR 63.5713]

{Permitting Note. Those operations and materials not included in the emissions average in Condition A.5, (a) above shall comply with the compliant materials option}

(a) Compliance using the organic HAP content requirements listed in Table 2 to this subpart is based on a 12-month rolling average that is calculated at the end of every month.

(b) At the end of every month, review the organic HAP contents of the resins and gel coats used in the past 12 months in each operation. If all resins and gel coats used in an operation have organic HAP contents no greater than the applicable organic HAP content limits in Table 2 to this subpart, then the source is in compliance with the emission limit specified in 40 CFR 63.5698 (see Condition A.2) for that 12-month period for that operation. In addition, the owner or operator do not need to complete the weighted-average organic HAP content calculation contained in paragraph (c) of this section for that operation.

Table 2 to Subpart VVVV of Part 63—Alternative Organic HAP Content Requirements for Open Molding Resin and Gel Coat Operations

For this operation—	And this application method—	The owner or operator must not exceed this weighted-average organic HAP content (weight percent) requirement
1. Production resin operations	Atomized (spray)	28 percent.
2. Production resin operations	Nonatomized (nonspray)	35 percent.
3. Pigmented gel coat operations	Any method	33 percent.
4. Clear gel coat operations	Any method	48 percent
5. Tooling resin operations	Atomized (spray)	30 percent.
6. Tooling resin operations	Nonatomized (nonspray)	39 percent.
7. Tooling gel coat operations	Any method	40 percent.

(c) At the end of every month, the owner or operator must use equation 4 of this section to calculate the weighted-average organic HAP content for all resins and gel coats used in each operation in the past 12 months.

$$Weighted - Average\ \text{HAP Content}\ (\%) = \frac{\sum_{i=1}^{n}(\text{Mi} \times \text{HAPi})}{\sum_{i=1}^{n}(\text{Mi})} \qquad (Eq\ 4)$$

Where:

M_i = mass of open molding resin or gel coat i used in the past 12 months in an operation, megagrams.

HAP_i = Organic HAP content, by weight percent, of open molding resin or gel coat i used in the past 12 months in an operation. Use the methods in 40 CFR 63.5758 (see Appendix 1 above) to determine organic HAP content.

n = number of different open molding resins or gel coats used in the past 12 months in an operation.

(d) If the weighted-average organic HAP content does not exceed the applicable organic HAP content limit specified in Table 2 to this subpart, then the owner or operator are in compliance with the emission limit specified in 40 CFR 63.5698 (see Condition A.2).

Appendix 4

List of Definitions for Subpart VVVVV (edited)

(40 CFR 63.5779)

Assembly adhesive means any chemical material used in the joining of one fiberglass, metal, foam, or wood parts to another to form a temporary or permanently bonded assembly. Assembly adhesives include, but are not limited to, methacrylate adhesives and putties made from polyester or vinylester resin mixed with inert fillers or fibers.

Atomized resin application means a resin application technology in which the resin leaves the application equipment and breaks into droplets or an aerosol as it travels from the application equipment to the surface of the part. Atomized resin application includes, but is not limited to, resin spray guns and resin chopper spray guns.

Carpet and fabric adhesive means any chemical material that permanently attaches carpet, fabric, or upholstery to any surface of a boat.

Clear gel coat means gel coats that are clear or translucent so that underlying colors are visible. Clear gel coats are used to manufacture parts for sale. Clear gel coats do not include tooling gel coats used to build or repair molds.

Deviation means any instance in which an affected source subject to this subpart or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emission limit, operating limit, or work practice requirement;

(2) Fails to meet any term or condition which is adopted to implement an applicable requirement in this subpart and which is included in the operating permit for any affected source required to obtain such permit; or

(3) Fails to meet any emission limit, operating limit, or work practice requirement in this subpart during any startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Filled resin means a resin to which an inert material has been added to change viscosity, density, shrinkage, or other physical properties.

Gel coat means a thermosetting resin surface coating containing styrene (Chemical Abstract Service or CAS No. 100-42-5) or methyl methacrylate (CAS No. 80-62-6), either pigmented or clear, that provides a cosmetic enhancement or improves resistance to degradation from exposure to the elements. Gel coat layers do not contain any reinforcing fibers and gel coats are applied directly to mold surfaces or to a finished laminate.

HAP content means the amount of HAP contained in a regulated material at the time it is applied to the part being manufactured. If no HAP is added to a material as a thinner or diluent, then the HAP content is the same as the HAP content of the material as purchased from the supplier. For resin and gel coat, HAP content does not include any HAP contained in the catalyst added to the resin or gel coat during application to initiate curing.

Hazardous air pollutant data sheet (HDS) means documentation furnished by a material supplier or an outside laboratory to provide the organic HAP content of the material by weight, measured using an EPA Method, manufacturer's formulation data, or an equivalent method. For aluminum coatings, the HDS also documents the solids content by volume, determined from the manufacturer's formulation data. The purpose of the HDS is to help the affected source in showing compliance with the organic HAP content limits contained in this subpart. The HDS must state the maximum total organic HAP concentration, by weight, of the material. It must include any organic HAP concentrations equal to or greater than 0.1 percent by weight for individual organic HAP that are carcinogens, as defined by the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR part 1910), and 1.0 percent by weight for all other individual organic HAP, as formulated. The HDS must also include test conditions if EPA Method 311 is used for determining organic HAP content.

MACT model point value means a number calculated for open molding operations that is a surrogate for emissions and is used to determine if your open molding operations are in compliance with the provisions of this subpart. The units for MACT model point values are kilograms of organic HAP per megagram of resin or gel coat applied.

Manufacturer's certification means documentation furnished by a material supplier that shows the organic HAP content of a material and includes a HDS.

Mold means the cavity or surface into or on which gel coat, resin, and fibers are placed and from which finished fiberglass parts take their form.

Mold sealing and release agents means materials applied to a mold to seal, polish, and lubricate the mold to prevent parts from sticking to the mold. Mold sealers, waxes, and glazing and buffing compounds are considered mold sealing and release agents for the purposes of this subpart.

Mold stripping and cleaning solvents means materials used to remove mold sealing and release agents from a mold before the mold surface is repaired, polished, or lubricated during normal mold maintenance.

Neat resin means a resin to which no filler has been added.

Nonatomized resin application 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, pressure fed resin rollers, resin impregnators, and hand application (for example, paint brush or paint roller).

Open molding resin and gel coat operation means any process in which the reinforcing fibers and resin are placed in the mold and are open to the surrounding air while the reinforcing fibers are saturated with resin. For the purposes of this subpart, open molding includes operations in which a vacuum bag or similar cover is used to compress an uncured laminate to remove air bubbles or excess resin, or to achieve a bond between a core material and a laminate.

Pigmented gel coat means opaque gel coats used to manufacture parts for sale. Pigmented gel coats do not include tooling gel coats used to build or repair molds.

Production resin means any resin used to manufacture parts for sale. Production resins do not include tooling resins used to build or repair molds, or assembly adhesives as defined in this section.

Recycled resin and gel coat application equipment cleaning solvent means cleaning solvents recycled on-site or returned to the supplier or another party to remove resin or gel coat residues so that the solvent can be reused.

Resin means any thermosetting resin with or without pigment containing styrene (CAS No. 100-42-5) or methyl methacrylate (CAS No. 80-62-6) and used to encapsulate and bind together reinforcement fibers in the construction of fiberglass parts.

Resin and gel coat application equipment cleaning means the process of flushing or removing resins and gel coats from the interior or exterior of equipment that is used to apply resin or gel coat in the manufacture of fiberglass parts.

Resin and gel coat mixing operation means any operation in which resin or gel coat, including the mixing of putties or polyputties, is combined with additives that include, but are not limited to, fillers, promoters, or catalysts.

Roll-out means the process of using rollers, squeegees, or similar tools to compact reinforcing materials saturated with resin to remove trapped air or excess resin.

Skin coat is a layer of resin and fibers applied over the gel coat to protect the gel coat from being deformed by the next laminate layers.

Tooling resin means the resin used to build or repair molds (also known as tools) or prototypes (also known as plugs) from which molds will be made.

Tooling gel coat means the gel coat used to build or repair molds (also known as tools) or prototypes (also known as plugs) from which molds will be made.

Vacuum bagging means any molding technique in which the reinforcing fabric is saturated with resin and then covered with a flexible sheet that is sealed to the edge of the mold and where a vacuum is applied under the sheet to compress the laminate, remove excess resin, or remove trapped air from the laminate during curing. Vacuum bagging does not include processes that meet the definition of closed molding.

Vinylester resin means a thermosetting resin containing esters of acrylic or methacrylic acids and having double-bond and ester linkage sites only at the ends of the resin molecules.

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as volume of nonvolatiles) to the volume of coating; liters of coating solids per liter of coating.

Wood coatings means coatings applied to wooden parts and surfaces of boats, such as paneling, cabinets, railings, and trim. Wood coatings include, but are not limited to, primers, stains, sealers, varnishes, and enamels. Polyester and vinylester resins or gel coats applied to wooden parts to encapsulate them or bond them to other parts are not wood coatings.

Appendix 5

Applicability of General Provisions to Subpart VVVV (40 CFR 63.5773)
Table 8 to Subpart VVVV of Part 63 (Edited)

Citation	Requirement
§ 63.1(a)	General Applicability
§ 63.1(b)	Initial Applicability Determination
§ 63.1(c)(1)-(5)	Applicability After Standard Established
§ 63.1(e)	Applicability of Permit Program
§ 63.2	Definitions.
§ 63.3	Units and Abbreviations
§ 63.4(a)	Prohibited Activities
§ 63.4(b)-(c)	Circumvention/Severability
§ 63.5(a)	Construction/Reconstruction
§ 63.5(b)	Requirements for Existing, Newly Constructed, and Reconstructed Sources
§ 63.5(d)	Application for Approval of Construction/Reconstruction
§ 63.5(e)	Approval of Construction/Reconstruction
§ 63.5(f)	Approval of Construction/Reconstruction Based on prior State Review
§ 63.6(a)	Compliance with Standards and Maintenance Requirements—Applicability
§ 63.6(b)	Compliance Dates for New and Reconstructed Sources
§ 63.695	specifies compliance dates
§ 63.6(c)	Compliance Dates for Existing Sources
§ 63.6(f)	Compliance with Nonopacity Emission Standards
§ 63.6(g)	Use of an Alternative Nonopacity Emission Standard
§ 63.6(i)	Extension of Compliance with Emission Standards
§ 63.6(j)	Exemption from Compliance with Emission Standards
§ 63.9(a)	Notification Requirements—Applicability
§ 63.9(b)	Initial Notifications
§ 63.9(c)	Request for Compliance Extension
§ 63.9(d)	Notification That a New Source
§ 63.9(h)	Notification of Compliance Status
§ 63.9(i)	Adjustment of Deadlines
§ 63.9(j)	Change in Previous Information
§ 63.10(a)	Recordkeeping/Reporting—Applicability
§ 63.10(b)(1)	General Recordkeeping Requirements
§ 63.10(b)(2)(xii)-(xiv)	General Recordkeeping Requirements
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations
§ 63.10(d)(1)	General Reporting Requirements
§ 63.10(d)(4)	Progress Reports for Sources with Compliance Extensions
§ 63.10(f)	Recordkeeping/Reporting Waiver
§ 63.12	State Authority and Delegations
§ 63.13	Addresses
§ 63.14	Incorporation by Reference
§ 63.15	Availability of Information/Confidentiality