

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

**Air Permit Review**

**Permit Issue Date: Date, 2005**

**Region:** Wilmington Regional Office  
**County:** Carteret  
**NC Facility ID:** 1600120  
**Inspector's Name:** Ashby Armistead  
**Date of Last Inspection:** 09/01/2004  
**Compliance Code:** 3/In Compliance - Inspection

<b>Facility Data</b>			<b>Permit Applicability (this application only)</b>
<b>Applicant (Facility's Name):</b> Parker Marine Enterprises Inc  <b>Facility Address:</b> Parker Marine Enterprises Inc 2570 Highway 101 Beaufort, NC 28516  <b>SIC:</b> 3732 / Boat Building And Repairing <b>NAICS:</b> 33992 / Sporting and Athletic Goods Manufacturing  <b>Facility Classification: Before:</b> Title V <b>After:</b> Title V <b>Fee Classification: Before:</b> Title V <b>After:</b> Title V			<b>SIP:</b> NA <b>NSPS:</b> NA <b>NESHAP:</b> 15A NCAC 2D .1111 (Subpart VVVV) <b>PSD:</b> NA <b>PSD Avoidance:</b> NA <b>NC Toxics:</b> NA <b>112(r):</b> NA <b>Other:</b> NA
<b>Contact Data</b>			<b>Application Data</b>
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<b>Application Number:</b> 1600120.05A <b>Date Received:</b> 02/14/2005 <b>Application Type:</b> Renewal <b>Application Schedule:</b> TV-Renewal <b>Existing Permit Data</b> <b>Existing Permit Number:</b> 06848/T05 <b>Existing Permit Issue Date:</b> 10/04/2001 <b>Existing Permit Expiration Date:</b> 11/30/2005
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<b>Review Engineer:</b> Mark Cuilla  <b>Review Engineer's Signature:</b> <b>Date:</b>		<b>Comments / Recommendations:</b> Issue 06848T06 <b>Permit Issue Date:</b> Date, 2005 <b>Permit Expiration Date:</b> Date, 2010	

**I. Purpose of Application**

This permitting action is a renewal of an existing Title V permit pursuant to 2Q .0513. The existing Title V permit (06848T05) was issued on October 4, 2001, and is currently scheduled to expire on November 30, 2005. The renewal application was received on February 14, 2005, or at least nine months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

**II. Facility Description**

Parker manufactures sport-fishing boats in the 17 to 28 foot range. The processes consist of lamination/gelcoat spray operations where gelcoat, fiberglass mat, and resins are applied to a mold to create various boat parts.

**III. History/Background/Application Chronology**

**February 14, 2005** – Permit application **1600120.05A** received and deemed complete for processing.

June 10, 2005 – Comments received on DRAFT permit from WIRO (See Section IX of this document for a discussion).

**IV. Permit Modifications/Changes and ESM Discussion**

The following table describes the modifications to the current permit as part of the renewal process.

Page(s)	Section	Description of Change(s)
Attachment	Insignificant Activities	-amended ID No. per current ESM entry
Cover	-	-revised permit revision numbers and all dates
TOC	-	-revised shell language
All	Header	-amended permit revision number
3	-	-revised shell language -added MACT Subpart designation to applicable sources
4	2.1 A (table)	-corrected cross-reference to PSD Avoidance condition -added MACT Subpart designation
4	2.1 A.1.a-f	-updated shell language and added equipment ID numbers
5	2.1 A.2.a-f	-updated shell language and added equipment ID numbers
5-6	2.1 A.3.a-c	-added "State Enforceable" notation -corrected cross-reference error
6-7	2.1 A.4.a-e	-updated shell language
7	2.1 A.5.a-d	-amended condition title to reference correct regulation -updated shell language
7-8	2.1 A.6.a-c	-updated shell language -added "State Enforceable" notation
8-18	2.2 A.1-17	-added MACT Subpart requirements
18-26	General Conditions	-updated shell language

*There were no changes to the Emission Source Module (ESM) required as part of this permit renewal. The only permit modification was to add the identification number and description to the list of insignificant sources to match the current ESM entry.*

**V. Regulatory Review**

The facility is currently subject to the following regulations:

- 15A NCAC 2D .0515, Particulates from Miscellaneous Industrial Processes
- 15A NCAC 2D .0521, Control of Visible Emissions
- 15A NCAC 2D .0530, Prevention of Significant Deterioration
- 15A NCAC 2D .0958, Work Practices for Sources of Volatile Organic Compounds
- 15A NCAC 2D .1806, Control and Prohibition of Odorous Emissions
- 15A NCAC 2D .1100, Toxic Air Pollutant Emissions Limitation and Reporting Requirement
- 15A NCAC 2Q .0711, Emission Rates Requiring a Permit

As a result of this permit renewal the following regulations have been added/modified/deleted from the permit:

- 15A NCAC 2Q .0317, Avoidance Conditions (*replacement for 15A NCAC 2D .0530*)
- 15A NCAC 2D .1111, Maximum Achievable Control Technology (*new requirement*)
- 15A NCAC 2Q .0711, Emission Rates Requiring a Permit (*removed as not applicable*)

**VI. NSPS, NESHAPS/MACT, PSD, 112(r), CAM**

**NSPS** – The facility is not currently subject to any New Source Performance Standards. This permit renewal activity does not change that status.

**NESHAPS/MACT** – The facility is subject to Maximum Achievable Control Technology Standards (Subpart VVVV) for boat manufacturing. The MACT as written applies to the combination of all of the following boat manufacturing operations:

- Open molding resin operations

- Closed molding resin operations
- Resin and gel coat mixing operations
- Resin and gel coat application equipment cleaning operations
- Carpet and fabric adhesive operations, and
- Aluminum hull and deck coating operations.

As an existing source, the facility was required to be in compliance with the MACT on August 23, 2004. Being subject to the MACT, the facility is required to comply with the applicable standards, notifications, reports and records described in the Subpart. The following language has been added to the permit:

## ***SECTION 2.2 – Multiple Emission Source(s) Specific Limitations and Conditions***

### ***A. National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing effected sources Building No. 1 (ID No. ES-Building No. 1)***

#### ***1. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY***

- a. *For all sources located at this facility, the Permittee shall comply with all applicable provisions contained in Environmental Management Commission Standard 15A NCAC 2D .1111, “Maximum Achievable Control Technology” (MACT) as promulgated in 40 CFR Part 63, Subpart VVVV. In the event of any wording discrepancy between the terms of this permit and Federal requirements found at 40 CFR 63, the language found at 40 CFR 63 shall control.*

#### ***2. 40 CFR 63.5698 OPEN MOLDING RESIN AND GEL COAT OPERATIONS***

- a. *Excluding those processes listed in Section 2.2 A.2.d below, the Permittee shall limit organic HAP emissions from any of the following open molding operations to the emission limit specified in Section 2.2 A.1.a above.*
  - i. *Production resin,*
  - ii. *Pigmented gel coat,*
  - iii. *Clear gel coat,*
  - iv. *Tooling resin, and*
  - v. *Tooling gel coat.*
- b. *The Permittee shall limit organic HAP emissions from open molding operations to the limit specified by the following equation, based on a 12-month rolling average.*

$$HAP\ Limit = [46(M_R) + 159(M_{PG}) + 291(M_{CG}) + 54(M_{TR}) + 214(M_{TG})]$$

*Where:*

*HAP Limit = total allowable organic HAP that can be emitted from the open molding operations, kilograms.*

*M<sub>R</sub> = mass of production resin used in the past 12 months, excluding any materials exempt under Section 2.2 A.2.d below, megagrams.*

*M<sub>PG</sub> = mass of pigmented gel coat used in the past 12 months, excluding any materials exempt under Section 2.2 A.2.d below, megagrams.*

*M<sub>CG</sub> = mass of clear gel coat used in the past 12 months, excluding any materials exempt under Section 2.2 A.2.d below, megagrams.*

*M<sub>TR</sub> = mass of tooling resin used in the past 12 months, excluding any materials exempt under Section 2.2 A.2.d below, megagrams.*

*M<sub>TG</sub> = mass of tooling gel coat used in the past 12 months, excluding any materials exempt under Section 2.2 A.2.d below, megagrams.*

- c. *The open molding emission limit is the same for both new and existing sources.*

- d. The following materials are exempt from the open molding emission limit specified in Section 2.2 A.2.b above.
- i. Production resins (including skin coat resins) 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. Production resins for which this exemption is used must be applied with nonatomizing (non-spray) resin application equipment. The Permittee shall keep a record of the resins which are being used for this exemption.
  - ii. 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. The Permittee shall keep a record of the amount of gel coats which are being used for this exemption and copies of calculations showing that the exempt amount does not exceed 1 percent of all gel coat used.
  - iii. 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. The Permittee shall keep a record of the amount of 100 percent vinylester skin coat resin used per month that is eligible for this exemption and copies of calculations showing that the exempt amount does not exceed 5 percent of all resin used.

**3. 40 CFR 63.5701 COMPLYING WITH THE OPEN MOLDING EMISSION LIMIT**

The Permittee shall use one or more of the following options to meet the emission limit in 40 CFR 63.5698 for the resins and gel coats used in open molding operations at the facility.

- a. Maximum achievable control technology (MACT) model point value averaging (emissions averaging) option.
  - i. The Permittee shall demonstrate that emissions from the open molding resin and gel coat operations that are averaged meet the emission limit in 40 CFR 63.5698 using the procedures described in 40 CFR 63.5710. Compliance with this option is based on a 12-month rolling average.
  - ii. Those operations and materials not included in the emissions average must comply with Section 2.2 A.3.b below.
- b. Compliant materials option. The Permittee shall demonstrate compliance by using resins and gel coats that meet the organic HAP content requirements in the following table. Compliance with this option is based on a 12-month rolling average.

*Alternative Organic HAP Content Requirements for Open Molding Resin and Gel Coat Operations*

<i>For this operation -</i>	<i>And this application method -</i>	<i>You must not exceed this weighted-average organic HAP content (weight percent) requirement -</i>
<i>Production resin operations</i>	<i>Atomized (spray)</i>	<i>28 percent</i>
<i>Production resin operations</i>	<i>Nonatomized (nonspray)</i>	<i>35 percent</i>
<i>Pigmented gel coat operations</i>	<i>Any method</i>	<i>33 percent</i>
<i>Clear gel coat operations</i>	<i>Any method</i>	<i>48 percent</i>
<i>Tooling resin operations</i>	<i>Atomized (spray)</i>	<i>30 percent</i>
<i>Tooling resin operations</i>	<i>Nonatomized (nonspray)</i>	<i>39 percent</i>
<i>Tooling gel coat operations</i>	<i>Any method</i>	<i>40 percent</i>

**4. 40 CFR 63.5704 GENERAL REQUIREMENTS FOR COMPLYING WITH THE OPEN MOLDING EMISSION LIMIT**

- a. Emissions averaging option. For those open molding operations and materials complying using the emissions averaging option, the Permittee shall demonstrate compliance by performing the following steps:

- i. Use the methods specified in 40 CFR 63.5758 to determine the organic HAP content of resins and gel coats.
- ii. Complete the calculations described in 40 CFR 63.5710 to show that the organic HAP emissions do not exceed the limit specified in 40 CFR 63.5698.
- iii. Keep the following records for each resin and gel coat:
  - A. Hazardous air pollutant content.
  - B. Amount of material used per month.
  - C. Application method used for production resin and tooling resin. This record is not required if all production resins and tooling resins are applied with nonatomized technology.
  - D. Calculations performed to demonstrate compliance based on MACT model point values, as described in 40 CFR 63.5710.
- iv. Prepare and submit the implementation plan described in 40 CFR 63.5707 to the Division and keep it up to date.
- v. Submit semiannual compliance reports to the Division as specified in 40 CFR 63.5764.
- b. Compliant materials option. For each open molding operation complying using the compliant materials option, the Permittee shall demonstrate compliance by performing the following steps:
  - i. Use the methods specified in 40 CFR 63.5758 to determine the organic HAP content of resins and gel coats.
  - ii. 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 40 CFR 63 subpart VVVV.
  - iii. Keep the following records for each resin and gel coat:
    - A. Hazardous air pollutant content.
    - B. 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.
    - C. 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.
    - D. Calculations performed, if required, to demonstrate compliance based on weighted-average organic HAP content as described in 40 CFR 63.5713.
  - iv. Submit semiannual compliance reports to the Division as specified in 40 CFR 63.5764.

#### **5. 40 CFR 63.5707 IMPLEMENTATION PLAN FOR OPEN MOLDING OPERATIONS**

- a. The Permittee shall prepare an implementation plan for all open molding operations for which compliance is demonstrated by using the emissions averaging option described in 40 CFR 63.5704(a).
- b. The implementation plan must describe the steps that will be taken to bring the open molding operations covered by this subpart into compliance. For each operation included in the emissions average, the implementation plan shall 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.
- c. The Permittee shall submit the implementation plan to the Division with the notification of compliance status specified in 40 CFR 63.5761.
- d. The Permittee shall keep the implementation plan on site and provide it to the Division when asked.
- e. If the implementation plan is revised, the revised plan must be submitted with the next semiannual compliance report specified in 40 CFR 63.5764.

#### **6. 40 CFR 63.5710 DEMONSTRATING COMPLIANCE USING EMISSIONS AVERAGING**

- a. 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). The first 12-month rolling-average period begins on the compliance date specified in 40 CFR 63.5695.
- b. At the end of the twelfth month after the facility's compliance date and at the end of every subsequent month, use the following equation 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 calculated for the same 12-month period. (Include terms in equation 1 of 40 CFR 63.5698 and the following equation for only those operations and materials included in the average.)

$$\text{HAP emissions} = [(PV_R)(M_R) + (PV_{PG})(M_{PG}) + (PV_{CG})(M_{CG}) + (PV_{TR})(M_{TR}) + (PV_{TG})(M_{TG})]$$

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. At the end of every month, use the following equation to compute the weighted-average MACT model point value for each open molding resin and gel coat operation included in the average.

$$PV_{OP} = \frac{\sum_{i=1}^n M_i PV_i}{\sum_{i=1}^n M_i}$$

Where:

$PV_{OP}$  = weighted-average MACT model point value for each open molding operation ( $PV_R$ ,  $PV_{PG}$ ,  $PV_{CG}$ ,  $PV_{TR}$ , and  $PV_{TG}$ ) included in the average, kilograms of HAP per megagram of material applied.

$M_i$  = 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.

$PV_i$  = 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.

- d. The Permittee shall use the following equations to calculate the MACT model point value ( $PV_i$ ) for each resin and gel coat used in each operation in the past 12 months.

*MACT Model Point Value Formulas for Open Molding Operations<sup>1</sup>*

Production resin, tooling resin.	Atomized	$0.014 \times (\text{Resin HAP}\%)^{2.425}$
	Atomized, plus vacuum bagging with roll-out.	$0.01185 \times (\text{Resin HAP}\%)^{2.425}$
	Atomized, plus vacuum bagging without roll-out.	$0.00945 \times (\text{Resin HAP}\%)^{2.425}$
	Nonatomized	$0.014 \times (\text{Resin HAP}\%)^{2.275}$
	Nonatomized, plus vacuum bagging with roll-out.	$0.0110 \times (\text{Resin HAP}\%)^{2.275}$
	Nonatomized, plus vacuum bagging without roll-out.	$0.0076 \times (\text{Resin HAP}\%)^{2.275}$

Pigmented gel coat, clear gel coat, tooling gel coat.	All methods	$0.445 \times (\text{Gel coat HAP}\%)^{1.675}$
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<sup>1</sup>Equations calculate MACT model point value in kilograms of organic HAP per megagrams of resin or gel coat applied. The equations for vacuum bagging with roll-out are applicable when a facility rolls out the applied resin and fabric prior to applying the vacuum bagging materials. The equations for vacuum bagging without roll-out are applicable when a facility applies the vacuum bagging materials immediately after resin application without rolling out the resin and fabric. HAP% = organic HAP content as supplied, expressed as a weight-percent value between 0 and 100 percent.

- e. If the organic HAP emissions, as calculated in Section 2.2 A.6.b above, are less than the organic HAP limit calculated in 40 CFR 63.5698(b) for the same 12-month period, then the facility is in compliance with the emission limit in 40 CFR 63.5698 for those operations and materials included in the average.

## 7. 40 CFR 63.5713 DEMONSTRATING COMPLIANCE USING COMPLIANT MATERIALS

- a. Compliance using the organic HAP content requirements listed in the following table, is based on a 12-month rolling average that is calculated at the end of every month. The first 12-month rolling-average period begins on the compliance date specified in 40 CFR 63.5695. If the Permittee is using filled material (production resin or tooling resin), he shall comply according to the procedure described in 40 CFR 63.5714.

Alternative Organic HAP Content Requirements for Open Molding Resin and Gel Coat Operations

<i>For this operation-</i>	<i>And this application method -</i>	<i>You must not exceed this weighted-average organic HAP content (weight percent) requirement -</i>
<i>Production resin operations</i>	<i>Atomized (spray)</i>	<i>28 percent</i>
<i>Production resin operations</i>	<i>Nonatomized (nonspray)</i>	<i>35 percent</i>
<i>Pigmented gel coat operations</i>	<i>Any method</i>	<i>33 percent</i>
<i>Clear gel coat operations</i>	<i>Any method</i>	<i>48 percent</i>
<i>Tooling resin operations</i>	<i>Atomized (spray)</i>	<i>30 percent</i>
<i>Tooling resin operations</i>	<i>Nonatomized (nonspray)</i>	<i>39 percent</i>
<i>Tooling gel coat operations</i>	<i>Any method</i>	<i>40 percent</i>

- b. At the end of the twelfth month after the facility's compliance date and at the end of every subsequent month, the Permittee shall 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 the table above, then the Permittee is in compliance with the emission limit specified in 40 CFR 63.5698 for that 12-month period for that operation. In addition, the Permittee does not need to complete the weighted-average organic HAP content calculation contained in Section 2.2 A.7.c below for that operation.
- c. At the end of every month, the Permittee shall use the following equation to calculate the weighted-average organic HAP content for all resins and gel coats used in each operation in the past 12 months.

$$\text{Weighted-Average HAP Content (\%)} = \frac{\sum_{i=1}^n M_i \text{HAP}_i}{\sum_{i=1}^n M_i}$$

Where:

$M_i$  = mass of open molding resin or gel coat  $i$  used in the past 12 months in an operation, megagrams.  
 $\text{HAP}_i$  = 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 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 the table above, then the Permittee is in compliance with the emission limit specified in 40 CFR 63.5698.

**8. 40 CFR 63.5714 DEMONSTRATING COMPLIANCE IF USING FILLED RESINS**

- a. If the Permittee is using a filled production resin or filled tooling resin, he shall demonstrate compliance for the filled material on an as-applied basis using the following equation:

$$PV_F = PV_U \frac{100 - \% \text{ Filler}}{100}$$

Where:

$PV_F$  = The as-applied MACT model point value for a filled production resin or tooling resin, kilograms organic HAP per megagram of filled material.

$PV_U$  = The MACT model point value for the neat (unfilled) resin, before filler is added, as calculated using the formulas in the following table.

% Filler = The weight-percent of filler in the as applied filled resin system.

*MACT Model Point Value Formulas for Open Molding Operations<sup>1</sup>*

Production resin, tooling resin.	Atomized	$0.014 \times (\text{Resin HAP}\%)^{2.425}$
	Atomized, plus vacuum bagging with roll-out.	$0.01185 \times (\text{Resin HAP}\%)^{2.425}$
	Atomized, plus vacuum bagging without roll-out.	$0.00945 \times (\text{Resin HAP}\%)^{2.425}$
	Nonatomized	$0.014 \times (\text{Resin HAP}\%)^{2.275}$
	Nonatomized, plus vacuum bagging with roll-out.	$0.0110 \times (\text{Resin HAP}\%)^{2.275}$
	Nonatomized, plus vacuum bagging without roll-out.	$0.0076 \times (\text{Resin HAP}\%)^{2.275}$
Pigmented gel coat, clear gel coat, tooling gel coat.	All methods	$0.445 \times (\text{Gel coat HAP}\%)^{1.675}$

<sup>1</sup>Equations calculate MACT model point value in kilograms of organic HAP per megagrams of resin or gel coat applied. The equations for vacuum bagging with roll-out are applicable when a facility rolls out the applied resin and fabric prior to applying the vacuum bagging materials. The equations for vacuum bagging without roll-out are applicable when a facility applies the vacuum bagging materials immediately after resin application without rolling out the resin and fabric. HAP% = organic HAP content as supplied, expressed as a weight-percent value between 0 and 100 percent.

- b. If the filled resin is used as a production resin and the value of  $PV_F$  calculated with the equation above does not exceed 46 kilograms of organic HAP per megagram of filled resin applied, then the filled resin is in compliance.
- c. If the filled resin is used as a tooling resin and the value of  $PV_F$  calculated with the equation above does not exceed 54 kilograms of organic HAP per megagram of filled resin applied, then the filled resin is in compliance.
- d. If the Permittee is including a filled resin in the emissions averaging procedure described in 40 CFR 63.5710, then he shall use the value of  $PV_F$  calculated using the equation above for the value of  $PV_i$  in equation 2 of 40 CFR 63.5710.

**9. 40 CFR 63.5731 STANDARDS FOR RESIN AND GEL COAT MIXING OPERATIONS**

- a. The Permittee shall cover at all times 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, with a cover with no visible gaps.

- b. *The work practice standard in Section 2.2 A.9.a above 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.*
- c. *To demonstrate compliance with the work practice standard in Section 2.2 A.9.a above, the Permittee 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.*
- d. *The Permittee shall keep records of which mixing containers are subject to this standard and the results of the inspections, including a description of any repairs or corrective actions taken.*

**10. 40 CFR 63.5734 STANDARDS FOR RESIN AND GEL COAT APPLICATION EQUIPMENT CLEANING OPERATIONS**

- a. *For routine flushing of resin and gel coat application equipment (e.g., spray guns, flowcoaters, brushes, rollers, and squeegees), the Permittee 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. *The Permittee 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 (National Emission Standards for Halogenated Solvent Cleaning). Cured resin or gel coat means resin or gel coat that has changed from a liquid to a solid.*

**11. 40 CFR 63.5737 DEMONSTRATING COMPLIANCE WITH THE RESIN AND GEL COAT APPLICATION EQUIPMENT CLEANING STANDARDS**

- a. *The Permittee shall determine and record the organic HAP content of the cleaning solvents subject to the standards specified in 40 CFR 63.5734 using the methods specified in 40 CFR 63.5758.*
- b. *If the Permittee recycles cleaning solvents on site, he may 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 for demonstrating compliance with organic HAP content limits.*
- c. *At least once per month, the Permittee shall 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. The Permittee shall keep records of the monthly inspections and any repairs made to the covers.*

**12. 40 CFR 63.5740 DEMONSTRATING COMPLIANCE WITH CARPET AND FABRIC ADHESIVE OPERATIONS**

- a. *The Permittee shall use carpet and fabric adhesives that contain no more than 5 percent organic HAP by weight.*
- b. *To demonstrate compliance with the emission limit in Section 2.2 A.12.a above, the Permittee shall determine and record the organic HAP content of the carpet and fabric adhesives using the methods in 40 CFR 63.5758.*

**13. 40 CFR 63.5758 DETERMINE THE ORGANIC HAP CONTENT OF MATERIALS**

- a. *Determine the organic HAP content for each material used. To determine the organic HAP content for each material used in the facility's open molding resin and gel coat operations, carpet and fabric adhesive operations, or aluminum recreational boat surface coating operations, the Permittee shall use one of the following options:*

- i. Method 311 (appendix A to 40 CFR part 63). The Permittee may use Method 311 for determining the mass fraction of organic HAP. The Permittee shall use the following procedures when determining organic HAP content by Method 311:
  - A. Include in the organic HAP total each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (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 measured to be 0.5 percent of the material by mass, the Permittee does not need to include it in the organic HAP total. Express the mass fraction of each organic HAP the Permittee measures as a value truncated to four places after the decimal point (for example, 0.1234).
  - B. Calculate the total organic HAP content in the test material by adding up the individual organic HAP contents and truncating the result to three places after the decimal point (for example, 0.123).
- ii. Method 24 (appendix A to 40 CFR part 63). The Permittee may use Method 24 to determine the mass fraction of non-aqueous volatile matter of aluminum coatings and use that value as a substitute for mass fraction of organic HAP.
- iii. ASTM D1259-85 (Standard Test Method for Nonvolatile Content of Resins). The Permittee may use ASTM D1259-85 (available for purchase from ASTM) to measure the mass fraction of volatile matter of resins and gel coats for open molding operations and use that value as a substitute for mass fraction of organic HAP.
- iv. Alternative method. The Permittee may use an alternative test method for determining mass fraction of organic HAP if he obtains prior approval from the Administrator, US EPA, Region IV. The Permittee shall follow the procedure in 40 CFR 63.7(f) to submit an alternative test method for approval.
- v. Information from the supplier or manufacturer of the material. The Permittee may rely on information other than that generated by the test methods specified in Sections 2.2 A.13.a.i through a.iv above, such as manufacturer's formulation data, according to the following:
  - A. 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, the facility does not have to include it in the organic HAP total.
  - B. If the organic HAP content is provided by the material supplier or manufacturer as a range, then the Permittee shall 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 Sections 2.2 A.13.a.i through a.iv above exceeds the upper limit of the range of the total organic HAP content provided by the material supplier or manufacturer, then the Permittee shall use the measured organic HAP content to determine compliance.
  - C. If the organic HAP content is provided as a single value, the Permittee may 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 Sections 2.2 A.13.a.i through a.iv above is less than 2 percentage points higher than the value for total organic HAP content provided by the material supplier or manufacturer, then the Permittee 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 the Permittee shall use the measured organic HAP content to determine compliance.
- vi. 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, the Permittee may use the values for organic HAP content that are listed in Table 5 or 6 as contained in 40 CFR 63 Subpart VVVV. The Permittee may use Table 6 as contained in 40 CFR 63 Subpart VVVV, only if the solvent blends in the materials the Permittee uses do not match any of the solvent blends in Table 5 as contained in 40 CFR 63 Subpart VVVV, and the Permittee knows only whether the blend is either aliphatic or aromatic. However, if test results indicate higher values than those listed in Table 5 or 6 as contained in 40 CFR 63 Subpart VVVV, then the test results must be used for determining compliance.

#### **14. 40 CFR 63.5761 NOTIFICATIONS**

- a. *The Permittee shall submit all of the notifications in Table 7 as contained in 40 CFR 63 Subpart VVVV, that apply to the facility by the dates in the table. The notifications are described more fully in 40 CFR Part 63, Subpart A, General Provisions, referenced in Table 8 as contained in 40 CFR 63 subpart VVVV.*
- b. *If the Permittee changes any information submitted in any notification, he shall submit the changes in writing to the Division within 15 calendar days after the change.*
- c. *The Permittee may switch between the compliance options (Emissions Averaging and Compliant Materials) in 40CFR63, Subpart VVVV per the following requirements. In all cases, the Permittee shall submit notification to change options, in writing, to the Division of Air Quality, 15 days prior to changing compliance options.*
  - i. *Changing from Compliant Materials (40 CFR 63.5713) to 12-month Emissions Averaging (40 CFR 63.5710). The Permittee shall begin collecting resin and gel coat usage data on the date the compliance option is switched. The Permittee shall demonstrate compliance using the Emissions Averaging option for at least 12 consecutive months.*
  - ii. *Changing from 12-month Emissions Averaging (40 CFR 63.5710) to Compliant Materials (40 CFR 63.5713). The Permittee shall begin complying with the Compliant Materials option on the date the compliance option is switched. Until the full 12-month compliance period has ended the Permittee shall continue to collect resin and gel coat usage data and calculate the 12-month emissions average.*
- d. *This permit contains compliance certification, monitoring, reporting, and record keeping requirements sufficient to assure compliance with the terms and conditions of this permit. All submittals required by these conditions shall be sent to the North Carolina Division of Air Quality at the following address:*

*North Carolina Division of Air Quality  
Wilmington Regional Office  
127 Cardinal Drive Extension  
Wilmington, North Carolina 28405-3845*

#### **15. 40 CFR 63.5764 WHAT REPORTS MUST BE SUBMITTED AND WHEN?**

- a. *The Permittee shall submit the applicable reports specified in Section 2.2 A.15.b and c below. To the extent possible, the Permittee shall organize each report according to the operations covered by this subpart and the compliance procedure followed for that operation.*
- b. *Under 40 CFR 63.10(a), the Permittee shall submit each report by the following dates:*
  - i. *If the source is not controlled by an add-on control device (i.e., the facility is complying with organic HAP content limits, application equipment requirements, or MACT model point value averaging provisions), the first compliance report shall cover the period beginning 12 months after the compliance date specified for the source in 40 CFR 63.5695 and ending on June 30 or December 31, whichever date is the first date following the end of the first 12-month period after the compliance date that is specified for the source in 40 CFR 63.5695. If the source is controlled by an add-on control device, the first compliance report must cover the period beginning on the compliance date specified for the source in 40 CFR 63.5695 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for the source in 40 CFR 63.5695.*
  - ii. *The first compliance report shall be postmarked or delivered no later than 60 calendar days after the end of the compliance reporting period specified in Section 2.2 A.15.b.i above.*
  - iii. *Each subsequent compliance report shall cover the applicable semiannual reporting period from January 1 through June 30 or from July 1 through December 31.*
  - iv. *Each subsequent compliance report shall be postmarked or delivered no later than 60 calendar days after the end of the semiannual reporting period.*
  - v. *For each affected source that is subject to permitting regulations pursuant to 40 CFR Part 70 or 71, and if the permitting authority 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 Permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in Section 2.2 A.15.b.i through b.iv above.*
- c. *The compliance report shall include the following information:*

- i. *Company name and address.*
- ii. *A statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the report.*
- iii. *The date of the report and the beginning and ending dates of the reporting period.*
- iv. *A description of any changes in the manufacturing process since the last compliance report.*
- v. *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 facility is complying. The statement or table shall also show the actual weighted-average organic HAP content or weighted-average MACT model point value (if applicable) for each operation during each of the rolling 12-month averaging periods that end during the reporting period.*
- vi. *If the facility was in compliance with the emission limits and work practice standards during the reporting period, the Permittee shall include a statement to that effect.*
- vii. *If the Permittee deviated from an emission limit or work practice standard during the reporting period, the he shall also include the following information in the semiannual compliance report:*
  - A. *A description of the operation involved in the deviation,*
  - B. *The quantity, organic HAP content, and application method (if relevant) of the materials involved in the deviation,*
  - C. *A description of any corrective action the Permittee took to minimize the deviation and actions he has taken to prevent it from happening again, and*
  - D. *A statement of whether or not the facility was in compliance for the 12-month averaging period that ended at the end of the reporting period.*

#### **16. 40 CFR 63.5767 RECORDS**

*In addition to records specified in individual conditions of this Subpart, the Permittee shall keep the following records:*

- a. *a copy of each notification and report that the Permittee submitted to comply with this subpart.*
- b. *all documentation supporting any notification or report that the Permittee submitted.*
- c. *If the facility is not controlled by an add-on control device (i.e., the facility is complying with organic HAP content limits, application equipment requirements, or MACT model point value averaging provisions), the following records:*
  - i. *The total amounts of open molding production resin, pigmented gel coat, clear gel coat, tooling resin, and tooling gel coat used per month and the weighted-average organic HAP contents for each operation, expressed as weight-percent. For open molding production resin and tooling resin, the Permittee shall also record the amounts of each applied by atomized and nonatomized methods.*
  - ii. *The total amount of each aluminum coating used per month (including primers, top coats, clear coats, thinners, and activators) and the weighted-average organic HAP content as determined in 40 CFR 63.5752.*
  - iii. *The total amount of each aluminum wipedown solvent used per month and the weighted-average organic HAP content as determined in 40 CFR 63.5749.*

#### **17. 40 CFR 63.5770 How Long Must Records Be Kept?**

*The Permittee shall keep each record:*

- a. *readily available and in a form so they can be easily inspected and reviewed.*
- b. *for 5 years following the date that each record is generated.*
- c. *on site for at least 2 years after the date that each record is generated. The Permittee can keep the records offsite for the remaining 3 years.*
- d. *on paper or an alternative media, such as microfilm, computer, computer disks, magnetic tapes, or on microfiche.*

**PSD** – The facility is currently subject to a PSD Avoidance limitation of less than 250 tons of VOCs per consecutive 12-month period in order to remain classified as a minor source. This permit renewal activity does not change that status. The current permit condition of 15A NCAC 2D .0530 has been changed to 15A NCAC 2Q .0317.

**112(r)** – The facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in the Rule.

**CAM** – 40 CFR 64 requires that a continuous assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the major source threshold, and use a control device to meet an applicable standard. The facility currently employs filters for its spray operation. These filters are in place to collect overspray from the boat manufacturing process and are subject to the particulate standard of 15A NCAC 2D .0515. However, the facility does not have particulate matter emissions in quantities greater than the major source threshold; therefore, CAM does not apply.

**VII. Facility Wide Air Toxics**

Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the facility is subject to the following limits:

<b>Emission Source</b>	<b>Toxic Air Pollutant</b>	<b>Emission Limit</b>
Laminating operations	Styrene	814.0 pounds per hour
Gelcoating operations	Styrene	124.0 pounds per hour
Resin storage	Styrene	3.6 pounds per hour
Laminating operations	MEK	1.13 pounds per hour 27.12 pounds per day
Gelcoating operations	MEK	1.13 pounds per hour 27.12 pounds per day

To ensure compliance with these limits, the Permittee is required to meet the applicable operating limitations, monitoring requirements and reporting requirements. Continued compliance is expected

As discussed above, the facility is currently subject to the Maximum Achievable Control Technology standards for boat manufacturing (Subpart VVVV). This, per 15A NCAC 2Q .0705, is the “last MACT” that applies to the facility. Therefore, the facility should have been in compliance with NC Air Toxics at the same time it was required to be in compliance with the MACT (August 23, 2004 for an existing facility). The facility completed and DAQ approved the results of modeling on April 3, 2001. This facility modeling meets the requirement of “last MACT”; therefore, the facility is in compliance with NC Air Toxics.

**VIII. Facility Emissions Review**

There is no change in emissions for this renewal.

The following table represents the latest years emission inventory from the facility:

<b>Pollutant(s)</b>	<b>2003 Actual Emissions (tpy)</b>
VOC	71.16
Total HAP	73.12

**IX. Stipulation Review**

WIRO had the following comments on the DRAFT permit as presented prior to issuance:

1. On page 7, Condition 6.a.iii, I believe the limit should be 823 pounds per hour, not 82.3. *Agree; correction of typographical error was made.*

2. Out of curiosity, why are the PSD and toxics conditions no longer under the multiple emission source condition? *The facility has only one listed group of equipment as an applicable source; therefore, there is no need to differentiate between it and a “multiple emission source” limit.*
3. The DRAFT review indicated that the PSD condition requires quarterly reporting that was switched to semi-annual reporting to bring it into alignment with other reporting. The reporting requirement has always been semi-annual. *Agree; correction to this review has been made.*

**X. Public Notice/EPA and Affected State(s) Review**

Pursuant to 15A NCAC 2Q .0521, a notice of the DRAFT Title V Permit shall be placed in a newspaper of general circulation in the area where the facility is located. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 2Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 2Q .0521 above. There are no affected States.

**XI. Conclusions, Comments, and Recommendations**

A professional engineer’s seal was not required for this renewal.

A consistency determination was not required for his renewal.

WIRO recommends issuance of the permit and was presented with a DRAFT permit prior to issuance. Their comments and RCO response are in Section IX of this document.

RCO concurs with WIRO’s recommendation to issue the renewed air permit.