NORTH CAROLINA DIVISION OF AIR QUALITY

Air Permit Review

Permit Issue Date: DATE

Region: Washington Regional Office
County: Craven
NC Facility ID: 2500048
Inspector's Name: Bernie Pittman
Date of Last Inspection: 01/28/2008
Compliance Code: C / In Compliance With Procedural Reqr

Facility Data	Permit Applicability (this application only)
Applicant (Facility's Name): Hatteras Yachts **Facility Address:** Hatteras Yachts 110 North Glenburnie Road New Bern, NC 28560 **SIC:** 3732 / Boat Building And Repairing **NAICS:** 336612 / Boat Building **Facility Classification: Before:** Title V **After:** Title V **Fee Classification: Before:** Title V **After:** Title V	**SIP:** 2D .0512, .0515, .0521, .0958, .1806, .1111 **NSPS:** **NESHAP:** **PSD:** **PSD Avoidance:** 2Q .0317: 250 TPY for VOC **NC Toxics:** 2D .1100, 2Q .0705, .0711 **112(r):** **Other:**

Contact Data

Facility Contact	Authorized Contact	Technical Contact
John Hodge Environmental, Health, Safety Manager (252) 672-7329 110 North Glenburnie Road New Bern, NC 28560	Jay Fuller Vice President Manufacturing (252) 633-3101 110 North Glenburnie Road New Bern, NC 28560	John Hodge Environmental, Health, Safety Manager (252) 672-7329 110 North Glenburnie Road New Bern, NC 28560

Application Data

Application Number: 2500048.07B
Date Received: 05/31/2007
Application Type: Renewal
Application Schedule: TV-Renewal

Existing Permit Data
Existing Permit Number: 02742/T11
Existing Permit Issue Date: 03/26/2008
Existing Permit Expiration Date: 02/28/2013

Review Engineer: Mike Benson/Joseph Voelker

Review Engineer's Signature: **Date:**

Comments / Recommendations:
Issue 02742/T12
Permit Issue Date: DATE 2009
Permit Expiration Date: DATE 2014

I. Introduction:

The U.S. Environmental Protection Agency (EPA) has given interim approval to North Carolina's Title V operating permits program effective on December 15, 1995. Final approval for the Title V program was received October 1, 2001. Title V facilities are required to obtain an operating permit which addresses all applicable regulations under the State Implementation Plan, Federal Implementation Plan, and other provisions of the Clean Air Act (CAA). The Title V Operating Permit will define all of the facility's obligations under the CAA.

This Renewal Title V Air Permit Application Review intends to convey all pertinent emissions data, rules, policies, and engineering assumptions used to construct the Title V operating permit. The primary source of information used to construct the permit is the above referenced air permit application. This facility currently has Air Quality Permit No. 02742T11.

II. Background Information:

Pursuant to 15A NCAC 2Q .0506 Hatteras Yachts submitted its renewal Title V application to the Division of Air Quality on May 31, 2007~~?~~. The renewal application is being combined with an internally-generated application (2100078.07B) for Last MACT/Toxics modeling. The permit is required to go to public notice pursuant to 15A NCAC 2Q .0521.

III. Facility Description:

As indicated in the most recent inspection report:

Hatteras Yachts, Inc. manufactures fishing boats and motor yachts ranging from 54 -100 feet in length. The resin is applied by modern fluid impingement technology guns and hand lay up (hand rollers) and infusion (a vacuum process) and all of the gelcoat is applied by the modern fluid impingement technology guns. The facility operates six production lines. The facility manufactures 50-100 units per year on the average.

The infusion (vacuum) process is better know in the industry as the SCRIMP(Seemann Composites Resin Infusion Molding Process) technology. SCRIMP is a resin transfer molding process that uses a vacuum to pull liquid resin into a dry lay-up and is used for making very high quality, repeatable composite parts with almost zero VOC emissions.

IV. Table of Changes:

Old Page(s)	New Page(s)	Section	Description of Change(s)
N/A	N/A	N/A	Cover page, throughout, updated Dates, Permit Nos.
3	3	Section 1 table	Added CD-L1. The equipment is not new, just not identified in previous permits.
4	4	Section 1 table	Removed disclaimer language.
5	5	2.1.A	Added CD-L1
7	7	2.1.A.2	Removed “normal”.
9	9	2.1.B.2	Removed “normal”.
11	11	2.1.C.2	Removed “normal”.
12	12	2.1.D.2	Removed “normal”.
15	15	2.1.E.2	Removed “normal”.
18	18	2.2.A table	Added 2D .1100.
21	21	2.2.B.1.b, .d	Updated emissions factors language. Synchronized to semi annual reports.
40-42	----	Part II	Removed Part II.
30-39	30-39	General Conditions.	Confirmed most recent.
various	various	2.1.A.,B.,E, summary tables	Added 2D .1100, 2Q .0705, and .0711.

V. Statement of Compliance:

This facility was inspected by Bernie Pittman on January 28, 2008. The facility was in operation and appeared to be in compliance with all applicable Air Quality regulations at the time of the inspection. There have been no compliance issues in the past five years.

VI. Summary of Emission Sources and Control Devices:

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtences:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Lamination			
MACT L-1	Facility-wide lamination operations, excluding Small Parts Lamination	n/a	n/a
L-2	Small Parts Lamination	n/a	n/a
Adhesives			
MACT A-1	Facility-wide adhesive application operations	n/a	n/a
Fiberglass Working			
FW-1	Fiberglass working in trim and grind area	CD-D1.1 CD-D1.2 CD-D1.3 CD-D1.4 CD-D1.5 CD-D1.6 CD-D1.7 CD-D1.8 CD-D1.9 CD-D1.10 CD-D1.11 CD-D1.12	twelve bagfilters (720 square feet of filter area each)
Wood Working			
WW-1	Interior Boat Parts Wood Working Operations	CD-B1	one simple pulse bagfilter (1,539 square feet of filter area)
WW-2	Wood dust collection system which collects woodwaste from the millroom and cabinet woodworking operations	CD-C1	one cyclone (162 inches in diameter)

Paint Operations			
P-1-PSA P-1-PSB P-1-BF1	Facility-wide painting and finishing operations, including Paint Shop A Paint Shop B Building F-1	CD-F1 CD-F2 CD-F3	each controlled by a system consisting of: one cyclone (700 mm in diameter) installed in series with one canister-type fabric filter (34 square meters of filter area) for the collection of sanding dust
Abrasive Blasting			
AB-1	Abrasive blasting	CD-E1 CD-E2	Two air pulse bagfilters (9,440 square feet of filter area and 944 square feet of filter area)

VII. Emission Source-by-Source Evaluation:

A. Facility-wide lamination areas (ID No. L-1), excluding Small Parts Lamination; Small Parts Lamination (ID No. L-2)

1. Description:

   Open molding and other manufacturing operations to make fiberglass boats.

2. Applicable Regulatory Requirements:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E=4.10P^{0.67}$ where E =allowable emission rate in pounds per hour P =process weight in tons per hour and $E=55.0P^{0.11}-40$ where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521
odors	**State enforceable only** odorous emissions must be controlled	15A NCAC 2D .1806
toxic air pollutants	**State enforceable only** emissions limit per modeled rates	15A NCAC 2D .1100
toxic air pollutant	**State enforceable only** demonstration with AALs or TPERs as applicable	15A NCAC 2Q .0705
toxic air pollutant	**State enforceable only** demonstration with TPERs as applicable	15A NCAC 2Q .0711
hazardous air pollutants **MACT VVVV**	Standards contained in 40 CFR 63, Subpart VVVV	15A NCAC 2D .1111 (Subpart VVVV)

volatile organic compounds	250 tons per year VOC limit	15A NCAC 2Q .0317 (PSD avoidance)
	work practice standards	15A NCAC 2D .0958

a. 15A NCAC 2D .0515: "Particulates from Miscellaneous Industrial Process".

The particulate emissions limit for each source is determined by the individual process weight rates for each prospective source. Negligible particulate emissions are expected from this type of manufacturing process. The particulate rates were also evaluated during the initial Title V review. The facility is required to inspect the dry filters each month and report any maintenance performed on a semi-annual basis. Compliance has been confirmed with the Division's compliance inspection process. The facility is considered to be in compliance with 2D .0515.

No changes to the permitted stipulations are required.

b. 15A NCAC 2D .0521: "Control of Visible Emissions".

This source will be limited to 20 percent visible opacity emissions. Particulate emissions are generally associated with visible opacity (for most processes, excluding VOC condensation out of the stack). As noted above, this equipment is expected to have very little particulate emissions, and based on past experience and good engineering judgment, zero or nearly-zero percent visible opacity emissions are expected. Past compliance inspections have indicated that the facility is in compliance with 2D .0521.

Permit No. 02742T11 required the facility to conduct a visual inspection every week and keep records regarding maintenance activities similar to the requirements in the above listed 2D .0515. The current permit requires that "normal" be established during the first 30 days of operation. This is not needed for permit renewals and will be removed.

The permit is changed to remove the requirement to establish a "normal" visible opacity limit within 30 days of operation.

c. 15A NCAC 2D .1806: "Control and Prohibition of Odorous Emissions".

This rule requires the owner or operator of a facility to prevent objectionable odors beyond the facility's boundary. No odors have been noted outside. Therefore, based on past DAQ inspections, as well as no history of complaints from the community, the facility is expected to comply with 2D .1806.

No changes to the permitted stipulations are required.

d. 15A NCAC 2D .0958: "Work Practices for Sources of Volatile Organic Compounds".

This regulation contains work practice standards that are designed to minimize VOC loss. It contains a variety of procedures ranging from storing VOC containing material in tightly closed containers to not filling machines above the fill lines. The facility was noted to be in compliance during the last inspection. Monthly observations are required and the facility is required to submit a semi-annual report to the Division summarizing the findings of the observations. The facility is expected to comply with 2D .0958.

No changes to the permitted stipulations are required.

e. 15A NCAC 2Q .0317: "Avoidance Conditions" (PSD avoidance for VOC).

The facility is limited to a maximum of 250 tons per year of VOC emissions on a rolling 12-month basis. The previous permit (T11) required the facility to submit quarterly reports demonstrating compliance with the 12-month rolling average. Per DAQ policy, this reporting requirement was synchronized to other reporting requirements that are to be submitted on a semi-annual basis. The facility is still required to comply with the 12-month rolling average of less than 250 tons per year. The most recent data (2007 emissions inventory) indicates that the facility has 106 tons per year.

In addition, the Division is now incorporating boat-specific language for the monitoring/recordkeeping section. Previously, the Permittee was required to monitor and record the type and amount of VOC containing material and multiply by the amount of VOC in the material. This always assumed 100 percent emission of the styrene in the product. Which has been shown to not be the case. The monitoring/recordkeeping section will be changed to reflect the Division's current understanding of the boat manufacturing process.

The facility is expected to comply with 2Q .0317.

The permit has been changed to require the company to perform reporting on a semi-annual basis. The permit has been changed to reflect the correct emissions factors.

f. 15A NCAC 2D .1100: "Control of Toxic Air Pollutants".
15A NCAC 2Q .0705: "Existing Facilities and SIC Calls".
15A NCAC 2Q .0711: "Emission Rates Requiring a Permit".

This facility has been evaluated for Toxics. There are currently limits for MEK, toluene, and styrene in the permit that were obtained using air dispersion modeling. These limits are:

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
Facility-wide	methyl ethyl ketone (78-93-3) toluene (108-88-3)	28.6 pounds per hour 82.8 pounds per hour
Lamination (ID No. L-1)	styrene (100-42-5)	95.0 pounds per hour
Small Part Lamination (ID No. L-2)	styrene (100-42-5)	16.0 pounds per hour

No other TAP emissions were discovered as a result of the permit renewal process. There are currently 2Q .0711 TPER limits for ethyl acetate, MIBK, TDI, and xylene. These limits will remain the same. The only requirement will be that the facility keep operational records to demonstrate compliance.

The facility has been previously noted to be in compliance with 2Q .0705, the Last MACT toxics demonstration.

The facility is considered to be in compliance with 2D .1100, 2Q .0705, and 2Q .0711.

No changes to the permitted stipulations are required.

g. 15A NCAC 2D .1111: "Maximum Achievable Control Technology".

This entire facility is subject to 40 CFR 63, Subpart VVVV, "National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing". The previous permit contained all specific language for Subpart VVVV that has been developed by DAQ. All compliance options are included because the Company is allowed to switch compliance options at any time during the year, as long as DAQ is notified. The Permittee is considered to be in compliance with 2D .1111 at this time.

No changes to the permitted stipulations are required.

B. Facility-wide adhesive application operations (ID No. A-1)

1. Description:

Adhesive application. The adhesive must be less than 5 percent by weight HAP.

2. Applicable Regulatory Requirements:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E=4.10P^{0.67}$ where E =allowable emission rate in pounds per hour P =process weight in tons per hour and $E=55.0P^{0.11}-40$ where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
visible emissions	40 percent opacity	15A NCAC 2D .0521
odors	**State enforceable only** odorous emissions must be controlled	15A NCAC 2D .1806
toxic air pollutants	**State enforceable only** emissions limit per modeled rates	15A NCAC 2D .1100
toxic air pollutant	**State enforceable only** demonstration with AALs or TPERs as applicable	15A NCAC 2Q .0705
toxic air pollutant	**State enforceable only** demonstration with TPERs as applicable	15A NCAC 2Q .0711
hazardous air pollutants **MACT VVVV**	Standards contained in 40 CFR 63, Subpart VVVV	15A NCAC 2D .1111 (Subpart VVVV)
volatile organic compounds	250 tons per year VOC limit	15A NCAC 2Q .0317 (PSD avoidance)
	work practice standards	15A NCAC 2D .0958

a. 15A NCAC 2D .0515: "Particulates from Miscellaneous Industrial Process".

See Section VII.A.2.a. No changes made.

b. 15A NCAC 2D .0521: "Control of Visible Emissions".

See Section VII.A.2.b. As noted above, "normal" has been removed.

c. 15A NCAC 2D .1806: "Control and Prohibition of Odorous Emissions".

See Section VII.A.2.c. No changes made.

d. 15A NCAC 2D .0958: "Work Practices for Sources of Volatile Organic Compounds".

See Section VII.A.2.d. No changes made.

e. 15A NCAC 2Q .0317: "Avoidance Conditions" (PSD avoidance for VOC).

See Section VII.A.2.e. As noted above, reporting changed to semi-annual.

g. 15A NCAC 2D .1111: "Maximum Achievable Control Technology".

See Section VII.A.2.f. No changes made.

C. Fiberglass working (ID No. FW-1) in trim and grind area and twelve associated bagfilters (ID Nos. CD-D1.1, CD-D1.2, CD-D1.3, CD-D1.4, CD-D1.5, CD-D1.6, CD-D1.7, CD-D1.8, CD-D1.9, CD-D1.10, CD-D1.11, and CD-D1.12; 720 square feet of filter area each)

1. Description:

Finished (cured) fiberglass working area where boats and boat parts are finished.

2. Applicable Regulatory Requirements:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E=4.10P^{0.67}$ where E =allowable emission rate in pounds per hour P =process weight in tons per hour and $E=55.0P^{0.11}-40$ where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521

a. 15A NCAC 2D .0515: "Particulates from Miscellaneous Industrial Process".

See Section VII.A.2.a. No changes made.

b. 15A NCAC 2D .0521: "Control of Visible Emissions".

See Section VII.A.2.b. As noted above, "normal" has been removed.

D. Wood Working Operations including:
Interior Boat Parts Wood Working Operations (ID No. WW-1) and associated simple air pulse bagfilter (ID No. CD-B1, 1,539 square feet of filter area)
Wood dust collection system (ID No. WW-2) which collects woodwaste from the millroom and cabinet woodworking operations and one associated cyclone (ID No. CD-C1, 162 inches in diameter)

1. Description:

Wood working operations for the finish trim and interior of fiberglass boats.

2. Applicable Regulatory Requirements:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	Adequate ductwork and properly designed collecctors	15A NCAC 2D .0512
visible emissions	40 percent opacity	15A NCAC 2D .0521

a. 15A NCAC 2D .0512: "Particulates from Wood Products Finishing Plants".

The facility is required to not cause, allow, or permit particulate matter from wood working operations (working, sanding, finishing) to be discharged into the atmosphere without providing adequate collection and control. The wood working equipment at the facility is controlled by a bagfilter and a cyclone. The facility is currently required to conduct monthly external inspections and yearly internal inspections for both the bagfilter and the cyclone. The facility reports monitoring and maintenance activities to the Division on a semi-annual basis. In previous inspections, the facility appeared to be in compliance with 2D .0512.

No changes to the permitted stipulations are required.

b. 15A NCAC 2D .0521: "Control of Visible Emissions".

See Section VII.A.2.b. As noted above, "normal" has been removed.

E. Facility-wide painting and finishing operations, including Paint Shop A (ID No. P-1-PSA), Paint Shop B (ID No. P-1-PSB), and Building F-1 (ID No. P-1-BF1), each controlled by a cyclone in series with a canister-type fabric filter (ID Nos. CD-F1, CD-F2, and CD-F3, respectively) that is used for the collection of sanding dust

1. Description:

   Fiberglass boat painting operations.

2. Applicable Regulatory Requirements:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E=4.10P^{0.67}$ where E =allowable emission rate in pounds per hour P =process weight in tons per hour and $E=55.0P^{0.11}-40$ where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521
odors	odorous emissions must be controlled	15A NCAC 2D .1806
toxic air pollutants	**State enforceable only** emissions limit per modeled rates	15A NCAC 2D .1100
toxic air pollutant	**State enforceable only** demonstration with AALs or TPERs as applicable	15A NCAC 2Q .0705
toxic air pollutant	**State enforceable only** demonstration with TPERs as applicable	15A NCAC 2Q .0711
hazardous air pollutants **MACT VVVV**	Standards contained in 40 CFR 63, Subpart VVVV	15A NCAC 2D .1111 (Subpart VVVV)
volatile organic compounds	250 tons per year VOC limit	15A NCAC 2Q .0317 (PSD avoidance)
	work practice standards	15A NCAC 2D .0958

a. 15A NCAC 2D .0515: "Particulates from Miscellaneous Industrial Process".

   See Section VII.A.2.a. No changes made.

b. 15A NCAC 2D .0521: "Control of Visible Emissions".

   See Section VII.A.2.b. As noted above, "normal" has been removed.

c. 15A NCAC 2D .1806: "Control and Prohibition of Odorous Emissions".

See Section VII.A.2.c. No changes made.

d. 15A NCAC 2D .0958: "Work Practices for Sources of Volatile Organic Compounds".

See Section VII.A.2.d. No changes made.

e. 15A NCAC 2Q .0317: "Avoidance Conditions" (PSD avoidance for VOC).

See Section VII.A.2.e. As noted above, reporting changed to semi-annual.

g. 15A NCAC 2D .1111: "Maximum Achievable Control Technology".

S*ee Section VII.A.2.f. No changes made.*

F. Abrasive blasting operation (ID No. AB-1) and two associated air pulse bagfilters (ID Nos. CD-E1 and CD-E2; 9,440 and 944 square feet of filter area, respectively)

1. Description:

Abrasive blasting operation.

2. Applicable Regulatory Requirements:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E=4.10P^{0.67}$ where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521

a. 15A NCAC 2D .0515: "Particulates from Miscellaneous Industrial Process".

See Section VII.A.2.a. No changes made.

b. 15A NCAC 2D .0521: "Control of Visible Emissions".

See Section VII.A.2.b. As noted above, "normal" has been removed.

VIII. Other Applicable Requirements:

A. NAA/PSD Issues:

Craven County has been triggered for PSD increment tracking for PM10, SO2, and NOx. This renewal does not affect PSD increment tracking.

NAA NSR does not apply.

B. NSPS Issues:

This facility is not subject to NSPS.

C. MACT Issues:

This facility is subject to 40 CFR 63, Subpart VVVV (Boat Manufacturing MACT). The facility is expected to comply.

D. 112(r) Issues:

This facility is not subject to 112(r).

E. CAM Issues:

This facility is not subject to CAM because post 1990 MACT requirements are applicable.

F. NC Air Toxics:

As noted above this facility is subject to Air Toxics (2D .1100, 2Q .0705, and 2Q .0711) and is considered to be in compliance.

IX. Facility-wide Emissions Summary:

Emissions are summarized from the 2007 emissions inventory.

Pollutant	Actual Emissions (TPY, after controls)
PM	3.06
PM10	Not Reported
PM2.5	Not Reported
SO2	Not Reported
NOx	Not Reported
CO	Not Reported
VOC	106.44

The facility's highest HAP emission is styrene, at approximately 39 tons per year.

X. Public Notice / EPA and Affected State Review:

~~Pursuant to 2Q. 0521, a notice of the draft Title V Permit will 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 will be sent to persons on the Title V mailing list and EPA. Pursuant to 2Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant was provided to EPA. Also pursuant to 2Q .0522, a notice of the draft Title V Permit was provided to each affected State at or before the time notice provided to the public under 2Q .0521 above. South Carolina is an affected State for this facility. No comments from EPA or the public were received. OR INSERT COMMENTS HERE.~~

XI. Conclusions, Comments, and Recommendations:

A PE seal was not needed for this application.

WARO recommends issuance of Permit No. 02742T12.

Recommend issuance of Permit 02742T12.