

## Air Permit Review

Permit Issue Date: **July 30, 2010**

**Region:** Raleigh Regional Office  
**County:** Wilson  
**NC Facility ID:** 9800188  
**Inspector's Name:** Will Wike  
**Date of Last Inspection:** 11/10/2009  
**Compliance Code:** 3 / Compliance – insp.

<b>Facility Data</b>			<b>Permit Applicability</b>		
<b>Applicant:</b> Kencraft Manufacturing Inc. 4155 Dixie Inn Road Wilson, NC 27893  <b>SIC:</b> 3732 / Boat Building And Repairing <b>NAICS:</b> 336612 / Boat Building  <b>Facility Classification:</b> <b>Before:</b> Title V <b>After:</b> Title V <b>Fee Classification:</b> <b>Before:</b> Title V <b>After:</b> Title V			<b>SIP:</b> 2D .0515, .0521, and .0958 <b>NSPS:</b> Not applicable <b>NESHAP:</b> 40 CFR Part 63, Subpart VVVV <b>PSD:</b> Not applicable <b>PSD Avoid.:</b> 2Q .0317 (for VOC) <b>NC Toxics:</b> 2D .1100 and 2Q .0705/.0711 <b>112(r):</b> Not applicable <b>Other:</b> 2D .1806		
<b>Contact Data</b>			<b>Application Data</b>		
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<b>Application Number:</b> 9800188.10A <b>Date Received:</b> 01/29/2010 <b>Application Type:</b> Renewal <b>Application Schedule:</b> TV-Renewal <b>Existing Permit Data</b> <b>Existing Permit Number:</b> 08158/T05 <b>Existing Permit Issue Date:</b> 04/06/2007 <b>Existing Permit Expiration Date:</b> 09/30/2010		
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<b>Review Engineer:</b> David Putney  <b>Review Engineer's Signature:</b> _____ <b>Date:</b> _____			<b>Comments / Recommendations:</b> Issue 08158/T06 <b>Permit Issue Date:</b> <b>July 30, 2010</b> <b>Permit Expiration Date:</b> <b>June 30, 2015</b>		

### I Reason for Application:

**Facility Description (from the inspection report dated 11/10/09):** Kencraft Manufacturing, Inc. (Kencraft) manufactures 17 to 24 foot boats at this facility. There are four distinct processes involved in boat manufacturing: 1) lay-up and spray, 2) sanding and fitting, 3) rigging and assembly, and 4) cleanup and shipping. Only the lay-up and spray operation generates air emissions due to the styrene emissions from the lay-up and spray operation and therefore require air permitting.

Boat molds are used to form the hull of the boat. The inside of the hull is made out of resin and fiberglass, and the outside is made of gel coat. The process begins with coating the molds with a Teflon wax. The molds are then spray coated with a gel coat. Next, chopper guns cut polyester fibers to one-inch lengths and mix it with styrene-based resin and the mixture is sprayed to form fiberglass. The resin can also be applied manually. A catalyst is incorporated into the resin/fiberglass mix (1.5% by weight) to hasten the curing process. Next, accessories are added to the hulls. Ventilation fans remove the styrene and VOC emissions from the work areas.

**Requested Permit Modifications:** The Permittee submitted permit application 9800188.10A to renew, without modification, Permit No. 08158T05.

### II Regulatory review for rules that apply to emissions from individual source categories:

#### A. Building No. 1 (laminating, gel coating, and assembly; ID No. ES-1) and two associated fiberglass mesh filters (6.3 square feet of surface area, each; ID Nos. CD-1 and CD-2)

The Permittee conducts the boat manufacturing activities in Building No. 1. These activities were installed at this facility in 1996 and are described in Section I, above.

**i. 2D .0515 “Particulates from Miscellaneous Industrial Processes”**

This rule applies to the spray booths located in Building No. 1 and limits the allowable PM emissions (E) from these sources to those described in the following two equations:

$$E \leq 4.10(P)^{0.67} \quad \text{If } P \leq 30 \text{ (ton/hr), or}$$
$$E \leq 55.0(P)^{0.11} - 40 \quad \text{If } P > 30 \text{ (ton/hr)}$$

Where: P = the process weight rate (ton/hr), and  
E = allowable emissions (lb PM/hr)

The spray booths are equipped with dry filters (ID Nos. CD-1 and CD-2). DAQ believes that these two dry filters are adequate to control PM emissions to levels below those allowed pursuant to 2D .0515. Current Permit No. 08158T05 includes the following requirements pursuant to 2D .0515:

- The standard language for the emission limits of 2D .0515 and the methods of testing for compliance (if/when required by DAQ);
- The requirement that the Permittee utilize the associated filters to control emissions from this source;
- Requirements to conduct weekly monitoring/recordkeeping of the filters; and
- Reporting requirements to submit semiannual monitoring, recordkeeping, and reporting (MRR) summary reports to NC DAQ and submit results of any dry filter system maintenance performed within 30 days of a written request by DAQ.

These requirements are maintained in Permit No. 08158T06.

**ii. 2D .0521 “Control of Visible Emissions”**

This rule applies to the spray booths located in Building No. 1, which were manufactured after 07/01/71. Therefore, except for those visible emissions (VEs) occurring during startup, shutdown and malfunctions that are regulated under 2D .0535, paragraph 2D .0521(d) requires that the 6-minute average VEs from these sources be less than or equal to 20% opacity with the following exceptions:

- One six-minute average VE per hour may exceed 20% opacity as long as that VE does not also exceed 87%; and
- Up to four six-minute average VEs per 24-hour period may exceed 20% opacity as long as those VEs do not also exceed 87% opacity.

Current Permit No. 08158T05 contains the requirement that the Permittee utilize the associated filters to control emissions from this source and the standard language for the emission limits of, and the prescribed methods of testing (if/when required by DAQ) for compliance with, 2D .0521. This language is maintained in Permit No. 08158T06.

The current permit lists the same MRR requirements pursuant to 2D .0521 that are listed for 2D .0515. However, in Permit No. 08158T06, the MRR requirements listed under 2D .0521 will be a reference to those MRR requirements listed under 2D .0515.

**III Regulatory review for rules that apply to aggregate emissions:**

**A. Facility-Wide Affected Sources**

The affected sources are described in Section I, above.

**i. 2D .0958 “Work Practices for Sources of Volatile Organic Compounds”**

This rule applies to the operations in this facility that use VOCs as solvents, carriers, material processing media, etc. and requires the Permittee to follow certain procedures when

using or storing the VOC-containing materials or cleaning or draining the equipment used to apply these materials. The Permittee does conduct the subject operations. Therefore, this rule is maintained in Permit No. 08158T06 with the standard language for work practice standards and MRR associated with this rule for the facility-wide affected sources.

**ii. 2D .1100 “Control of Toxic Air Pollutants”**

Current Permit No. 08158T05 includes requirements associated with 2D .1100 including a facility-wide styrene emission limit and a quarterly reporting requirement. The 2D .1100 condition is modified in Permit No. 08158T06 to include a recordkeeping requirement. Also, since the maximum facility-wide styrene emission rate reported by the Permittee over the consecutive 12-month period ending on 03/31/10 was 3.5 pounds per hour (i.e. about 12.5% of the limit), the reporting requirement is made conditional in Permit No. 08158T06. That is, the Permittee is no longer required to report the highest facility-wide styrene emission rate unless that emission rate exceeds 20 pounds per hour.

**iii. 2D .1806 “Control and Prohibition of Odorous Emissions”**

This rule requires the Permittee to prevent odorous emissions from the facility from causing or contributing to objectionable odors [as defined at 2D .1801(9)] beyond the facility’s boundary. The Permittee conducts operations that would reasonably be expected to create objectionable odors but does not have a history of violations of this rule. Therefore, this rule is maintained in Permit No. 08158T06 with the standard shell language.

**iv. 2Q .0317 “Avoidance Conditions” to avoid:  
2D .0530 “Prevention of Significant Deterioration”**

Current Permit No. 08158T05 includes a PSD avoidance condition limiting facility-wide VOC emissions to less than 250 tons per consecutive 12-month period. This condition requires monthly monitoring and recordkeeping and semiannual reporting of the facility-wide VOC emissions. These requirements are maintained in Permit No. 08158T06.

**v. 2Q .0705 “Existing Facilities and SIC Calls” and  
2Q .0711 “Emission Rates Requiring a Permit”**

Current Permit No. 08158T05 includes two conditions addressing 2Q .0705 and 2Q .0711 and requiring operation of the facility such that emissions of ethyl acetate, methyl ethyl ketone, toluene, and xylene are not above their associated TPERs, pursuant to 2Q .0711. These two conditions are combined into one condition in Permit No. 01819T37 using the current standard shell language for these rules. The Permittee submitted the required facility-wide toxics demonstration on 11/04/05. No equipment or emission modifications were listed in application 9800188.10A (i.e. this renewal) – therefore, the 11/04/05 facility-wide toxics demonstration submitted is still valid for this facility.

**B. Boat manufacturing operations in Building No. 1 (ID No. ES-1)**

**i. 2D .1111 “Maximum Achievable Control Technology”  
[40 CFR Part 63, Subpart VVVV]**

The Permittee is subject to 2D .1111 pursuant to 40 CFR Part 63, Subpart VVVV (Subpart VVVV – i.e. the MACT for Boat Manufacturing). Current Permit No. 08158T05 includes specific and detailed language addressing the requirements of Subpart VVVV. These requirements are maintained in Permit No. 08158T06, except that (1) they are reformatted to fit the standard permit shell (e.g. Section 2.2 B.2 of Permit No. 08158T05 is Section 2.2 B.1.b in Permit No. 08158T06), (2) Tables 2 and 3 of Subpart VVVV are only reproduced one time (other references to these tables refer the reader to the initial reproduction of the

tables – e.g. see Section 2.2 B.1.i.iv in Permit No. 08158T06), (3) Tables 5 and 6 of Subpart VVVV are reproduced for the Permittee’s convenience (see Section 2.2 B.1.m.iv in Permit No. 08158T06), and (4) references to the associated permit section are included when a permit section refers to a section of the CFR which is included in the permit [see, for example, Section 2.2 B.1.f.i(C)(4) in Permit No. 08158T06].

**IV NSPS/NESHAP/PSD/Toxics/112(r)/CAM/RACT Applicability:**

**NSPS:** The KenCraft facility does not utilize any reciprocating internal combustion engines or bulk storage tanks (see 05/13/10 phone log). No New Source Performance Standards (NSPS) currently apply to the sources at this facility pursuant to 2D .0524 and 40 CFR Part 60.

**NESHAP:** The boat manufacturing sources at this facility are subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) pursuant to rule 2D .1111 and 40 CFR Part 63, Subpart VVVV. Permit No. 08158T05 includes specific, detailed language addressing the associated requirements. That language is maintained in Permit No. 08158T06, with some modification (see discussion in Section III B.i, above).

**PSD:** Wilson County is currently in attainment with all NAAQS and has triggered the minor source baselines for PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>x</sub>. This facility does not fall into one of the categories listed at 40 CFR §51.166(b)(1)(i)(a) with a 100 tons per year threshold but does qualify as a major stationary source for purposes of Prevention of Significant Deterioration (PSD) pursuant to 40 CFR §51.166(b)(1)(i)(b) since it has the potential to emit VOC at rates in excess of 250 tons per consecutive 12-month period. The Permittee requested (via a previous application) a permit modification to limit potential VOC facility-wide VOC emissions to less than 250 tons per consecutive 12-month period in order to avoid applicability of PSD. Application 9800188.10A is a renewal without modification and, therefore, does not trigger a PSD review or increment tracking.

**Toxics:** Permit No. 08158T06 includes conditions addressing TAP emissions pursuant to 2D .1100, 2Q .0705, and 2Q .0711 (see the discussions in Sections III A.ii and v, above).

**112(r):** According to Sections AA1 and A3 of application 9800188.10A, this facility does not store any substances regulated under 112(r) in quantities above the associated thresholds and is therefore not subject to any requirements of Section 2D .2100 “Risk Management Program” or 40 CFR Part 68 “Chemical Accident Prevention Provisions” other than general duty.

**CAM:** The sources at this facility are not equipped with control devices (the dry filters on the spray booths are considered inherent to the booths’ operations and not control devices). Therefore, the requirements of 40 CFR Part 64 “Compliance Assurance Monitoring” pursuant to 2D .0614 “Compliance Assurance Monitoring” (do not apply to the Permittee).

**RACT:** This facility is not located in one of the areas listed in 2D .0902(e) or 2D .1402(d) and is therefore not subject to the existing source RACT requirements.

**V Permit Modifications/Changes:**

The following table summarizes the changes found in Permit No. 08158T06 resulting from Permit Application No. 9800188.10A:

Old Page(s)	New Page(s)	Condition/Item	Description of Change(s)
Global	Global	N/A	<ul style="list-style-type: none"> <li>Update format to current shell version (e.g. remove references to Part I and Part II of the permit and change testing rule reference to 2D .2601);</li> <li>Change the issuance/effective dates of the permit;</li> <li>Change the application number and complete date;</li> </ul>

Old Page(s)	New Page(s)	Condition/Item	Description of Change(s)
Global	Global	N/A	<ul style="list-style-type: none"> <li>Change permit revision number to T06; and</li> <li>Specify that the required semiannual summary reports may be mailed or delivered by hand</li> </ul>
3	3	Equipment List	Change the source and control device descriptions slightly to more accurately reflect facility conditions
3	4	2.1 A	Modify limits/standards summary table to show that the requirements of 2Q .0705 and 2Q .0711 have been combined into one condition and the requirements of 2D .1806 are now in Section 2.2 A.5
5	5	2.1 A.2.c	Replace 2D .0521 monitoring requirements with a reference to the 2D .0515 monitoring requirements
5	5	2.1 A.2.d	Replace 2D .0521 recordkeeping requirements with a reference to the 2D .0515 recordkeeping requirements
5	5	2.1 A.2.e	Replace 2D .0521 control device reporting requirement with a reference to the 2D .0515 reporting requirements
5	N/A	2.1 A.2.f (08158T05)	Remove 2D .0521 semiannual reporting requirement (it has been consolidated into 2.1 A.2.e)
5	N/A	2.1 A.3 (08158T05)	Remove 2D .1806 requirements since those are now addressed in Section 2.2 A.5
6	6	2.2 A.1.b	Modify 2D .0530 language to specify that calculations of VOC must be made both for each month and for each consecutive 12-month period
6	6	2.2 A.1.c	Modify 2D .0530 recordkeeping requirements to the current shell language
6	6	2.2 A.1.d	Modify 2D .0530 reporting requirements for clarity and to include any instances of deviation from the permit
7 - 8	7 - 8	2.2 A.3	Modify condition to address 2Q .0705/.0711, with the new permit shell language
8	8	2.2 A.4	Modify the 2D .1100 requirements to make reporting conditional and to include recordkeeping
8	8	2.2 A.5	Modify permit section to include 2D .1806 as opposed to 2Q .0705, which has been consolidated into 2.2 A.3
9 - 19	9 - 19	2.2 B	<ul style="list-style-type: none"> <li>Reformat to the standard permit shell (e.g. Section 2.2 B.2 of Permit No. 08158T05 is Section 2.2 B.1.b in Permit No. 08158T06);</li> <li>Remove the second reproduction of Tables 2 and 3 of Subpart VVVV;</li> <li>Include Tables 5 and 6 of Subpart VVVV for convenience (see Section 2.2 B.1.m.iv); and</li> <li>Include references to the associated permit section when a permit section refers to a section of the CFR which is included in the permit</li> </ul>
20 - 27	20 - 28	Section 3	Update general conditions to version 3.1

Note: Condition/Item numbers are as they appear in Permit No. 08158T06, unless otherwise noted.

## VI Title V Permit History:

The following table provides a very brief summary of Title V permit revisions for this facility:

Permit No.	Issuance Date	Description of Revision
08158T03	01/06/01	Issue initial Title V permit
08158T04	10/10/05	Renewal of the Title V permit
08158T05	04/06/07	State-only modification to incorporate limits/requirements associated with a facility-wide NC toxics demonstration pursuant to 2Q .0705
08158T06	07/30/10	Modification to renew the Title V permit

## VII Application Fee/Zoning Consistency:

No fee or zoning consistency determination is required for the renewal without equipment modification/facility expansion requested via application 9800188.10A.

## VIII Compliance Status:

The facility was most recently inspected on 11/10/09 by Mr. Will Wike of RRO and appeared to be operating in compliance with DAQ requirements during that inspection.

**IX Signature by Responsible Official:** Ms. Harriett Vick (i.e. the responsible official for the KenCraft Manufacturing, Inc. facility at the time this application was submitted) provided the required signatures on Forms AA and A1 of permit application 9800188.10A.

## X Permit Review:

**Draft Permit:** A draft version of Permit No. 08158T06 and the associated review were sent to the Permittee and the RRO for a review and comment period on 05/13/10.

**Public Participation:** In accordance with 2Q .0521, NC DAQ must provide the opportunity for public participation prior to the renewal of a Title V permit (such as that represented by application 9800188.10A). NC DAQ met this obligation with the public notice posted on the DAQ website and “mailed to persons who are on the Division’s mailing list for air quality permit notices” on 06/15/10.

**EPA & Affected States Review:** In accordance with 2Q .0522, NC DAQ must provide EPA and any Affected States [as defined at 2Q .0503(1)] the opportunity to review a proposed renewal of a Title V permit. NC DAQ met this obligation by sending those agencies a copy of Proposed Permit No. 08158T06 and the associated review on 06/14/10.

## XI Recommendation:

The Title V Permit renewal application 9800188.10A for the Kencraft Manufacturing, Inc. facility in Wilson, Wilson County, North Carolina has been reviewed by DAQ personnel to determine compliance with all applicable procedures and requirements. DAQ personnel have determined that this facility is complying or will achieve compliance with all applicable requirements as specified in Permit No. 08158T06.

Issuance of Permit No. 08158T06 is recommended.