

NORTH CAROLINA DIVISION OF AIR QUALITY <h2 style="text-align: center;">Air Permit Review</h2> Permit Issue Date:		Region: Fayetteville Regional Office County: Robeson NC Facility ID: 7800215 Inspector's Name: James Moser Date of Last Inspection: 07/22/2005 Compliance Code: C/In Compliance With Procedural Reqr	
Facility Data Applicant (Facility's Name): McKee Craft Facility Address: McKee Craft 404 Sandy St Fairmont, NC 28340 SIC: 3732 / Boat Building And Repairing NAICS: 81149 / Other Personal and Household Goods Repair and Maintenance Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V		Permit Applicability (this application only) SIP: 2D .0515, .0521, .1806, .1100, .1100, .0958, 2Q .0500, .0705, and .0711. NSPS: NESHAP: MACT VVVV PSD: PSD Avoidance: NC Toxics: 2D .1100 and 2Q .0711 112(r): Other:	
Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	Application Number: 7800215.05A Date Received: 05/26/2004 Application Type: Greenfield Facility Application Schedule: TV-Greenfield Existing Permit Data Existing Permit Number: 09550/R00 Existing Permit Issue Date: 01/06/2006 Existing Permit Expiration Date: 01/31/2007
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Review Engineer: Mike Benson Review Engineer's Signature: _____ Date: _____		Comments / Recommendations: Issue 09550/T01 Permit Issue Date: Permit Expiration Date:	

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 First Time 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 a State - .0300 Air Quality Permit. The facility has been in existence for years, but did not have an Air Quality Permit until January, 2006. The facility submitted a first time Title V application to the DAQ sometime in 2003, however, this application was "lost", and not logged into the system until May 26, 2004. This first time Title V application was transferred to the current engineer on November 2, 2005. At the request of Fayetteville Regional Office, a 1-year .0300 State permit was issued

on January 6, 2006, and is effective until the full Title V permit can go to public notice. The facility is considered to be Title V because styrene (Federal HAP) emissions are over the 10 TPY threshold.

II. Background Information:

This permit replaces Air Permit No. 09550R00, issued on January 6, 2006.

Pursuant to 15A NCAC 2Q .0506 McKee Craft submitted its initial Title V application to the Division of Air Quality on May 26, 2004. The application was considered complete for processing October 5, 2005, when the last-MACT modeling protocol and results were reviewed by Mark Yoder, AQAB. The permit is required to go to public notice pursuant to 15A NCAC 2Q .0521.

III. Facility Description:

McKee Craft produces fiberglass boats. Currently the emissions sources at the facility are from processes to mold and make fiberglass boats. McKee Craft is considered major for Title V purposes because styrene emissions exceed the 10 TPY threshold.

IV. Statement of Compliance:

This facility was inspected by DAQ on July 13, 2005. The facility was issued NOV/NRE in 2005, for failure to obtain a Title V permit. A number of issues were raised in the Fayetteville Office review. These issues are addressed in this permit revision. It is believed that the facility is in compliance with applicable Air Quality standards at this time.

V. 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 appurtenances:

Emission Source	Emission Source Description	Control Device	Control Device Description
GC-01	Gelcoat Spray and Brush Application	N/A	N/A
R-01	Resin Spray and Hand Lay-up	N/A	N/A
MISC-01	Tooling, Putty & Adhesive Application	N/A	N/A

VI. Emission Source-by-Source Evaluation:

A. Gelcoat Spray and Brush (ID No. GC-01).

1. Description:

Spray and brush application of gelcoat.

2. Applicable Regulatory Requirements:

The following provides a summary of limits and/or standards for the emission source(s) described above. A review of the information in the application was performed to ensure the appropriate limits and associated calculations used to show compliance were correct.

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E=4.10(P^{0.67})$ where P=process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521
odorous emissions	State-enforceable only - odorous emissions must be controlled	15A NCAC 2D .1806
hazardous air pollutants	MACT Subpart VVVV	15A NCAC 2D .1111
toxic air pollutants	State-enforceable only	15A NCAC 2D .1100
volatile organic compounds	work practice standards	15A NCAC 2D .0958

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

Gelcoat Spray and Brush Application (ID No. GC-01) is the only process at the facility to be expected to emit particulate emissions. Allowable particulate emissions are determined by the formula $E = 4.10 \times (P^{0.67})$, where P is the process rate in tons per hour, and E is the allowable emission rate in pounds per hour. Process rates were estimated from similar-sized facilities as the estimated process throughput included in the application probably did not include all process inputs. The process rate is considered to be the sum of all materials introduced into the process, and is estimated to be a maximum of 18 tons per hour.

Allowable particulate emissions are: $E = 4.10 \times (18)^{0.67} = 28.43 \text{ lb/hr}$.

Actual estimated particulate emissions are obtained from the application as 1.0 lb/hr (this is similar to estimates at other boat manufacturers and is considered valid by this Office). Estimated emissions are less than allowable emissions, and the equipment is considered/expected to be in compliance with 2D .0515.

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 percent visible opacity emissions are expected. The equipment is expected to be in compliance with 2D .0521.

- 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. Based on past DAQ inspections of similar facilities, an objectionable odor is not expected beyond the facility boundary. This equipment is expected to be in compliance with 2D .1806.

B. Resin Spray and Hand Lay-up (ID No. R-01).

- 1. Description:

Spray and hand lay-up of resin.

- 2. Applicable Regulatory Requirements:

The following provides a summary of limits and/or standards for the emission source(s) described above. A review of the information in the application was performed to ensure the appropriate limits and associated calculations used to show compliance were correct.

Regulated Pollutant	Limits/Standards	Applicable Regulation
visible emissions	20 percent opacity	15A NCAC 2D .0521
odorous emissions	State-enforceable only - odorous emissions must be controlled	15A NCAC 2D .1806
hazardous air pollutants	MACT Subpart VVVV	15A NCAC 2D .1111
toxic air pollutants	State-enforceable only	15A NCAC 2D .1100
volatile organic compounds	work practice standards	15A NCAC 2D .0958
toxic air pollutants	State-enforceable only	15A NCAC 2Q .0711

- a. 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). No particulate emissions are expected from this process, and thus, zero percent visible opacity is expected. The equipment is expected to be in compliance with 2D .0521.

- b. 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. Based on past DAQ inspections of similar facilities, an objectionable odor is not expected beyond the facility boundary. This equipment is expected to be in compliance with 2D .1806.

C. Boat Assembly & Miscellaneous (ID No. MISC-01).

1. Description:

Putty and adhesive application as well as miscellaneous use.

2. Applicable Regulatory Requirements:

The following provides a summary of limits and/or standards for the emission source(s) described above. A review of the information in the application was performed to ensure the appropriate limits and associated calculations used to show compliance were correct.

Regulated Pollutant	Limits/Standards	Applicable Regulation
visible emissions	20 percent opacity	15A NCAC 2D .0521
odorous emissions	State-enforceable only - odorous emissions must be controlled	15A NCAC 2D .1806
hazardous air pollutants	MACT Subpart VVVV	15A NCAC 2D .1111
toxic air pollutants	State-enforceable only	15A NCAC 2D .1100
volatile organic compounds	work practice standards	15A NCAC 2D .0958
toxic air pollutants	State-enforceable only	15A NCAC 2Q .0711

a. 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). No particulate emissions are expected from this process, and thus, zero percent visible opacity is expected. The equipment is expected to be in compliance with 2D .0521.

b. 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. Based on past DAQ inspections of similar facilities, an objectionable odor is not expected beyond the facility boundary. This equipment is expected to be in compliance with 2D .1806.

D. Facility-wide Regulations for ID Nos. GC-01, R-01, and MISC-01.

a. 15A NCAC 2D .0958: “Work Practices for Sources of Volatile Organic Compounds”.

This regulation contains stipulations 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 is expected to be in compliance with 2D .0958.

b. 15A NCAC 2D .1100: “Control of Toxic Air Pollutants”.

The Company had to perform air dispersion modeling for styrene. Source by source limits were established and included in the permit as follows:

EMISSION SOURCE	TOXIC AIR POLLUTANT	EMISSION LIMIT
Facility-wide	Styrene (100-42-5)	22.0 lb/hr

The facility is considered to be in compliance with the AAL for styrene based on the memo from Mark Yoder, AQAB. This modeling also makes the Company in compliance with DAQ’s requirement that a company must do a facility-wide Toxics demonstration when their last MACT takes effect.

c. 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”. This permit will include 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.

d. 15A NCAC 2Q .0711: “Emission Rates Requiring a Permit”.

The NC Toxic Air Pollutants emitted at the facility is ethyl acetate, formaldehyde, methyl ethyl ketone, toluene, and xylene (except styrene as modeled above). The below table summarizes emissions.

Pollutant	Allowable Emissions	Estimated Emissions
ethyl acetate	36 lb/hr	< 0.1
formaldehyde	0.04 lb/hr	< 0.1
methyl ethyl ketone	78 lb/day 22.4 lb/hr	< 2.0 lb/day < 0.3 lb/hr
toluene	98 lb/day 14.4 lb/hr	1.0 lb/day 0.1 lb/hr
xylene	57 lb/day 16.4 lb/hr	< 1 lb/day < 0.1 lb/hr

Expected actual emissions are less than allowable, and the facility is considered to be in compliance with 2Q .0711.

e. 15A NCAC 2Q .0705: “Existing Facilities and SIC Calls”.

The Permittee is required to demonstrate compliance with all NC Toxic Air Pollutants that are emitted by the facility at the time of the compliance date for the last MACT that is applicable to the facility. The facility has demonstrated compliance with 2Q .0705 as noted in sections b. and d., above.

VII. Other Applicable Requirements:

A. NAA/PSD Issues:

Robeson County has been triggered for PSD increment tracking for PM10 and SO2. This application does not increase either PM10 or SO2. Therefore, PSD increment tracking does not apply.

NAA 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). Specific MACT language for each source was included in this permit. The MACT reporting requirements were synchronized with other reporting requirements in the permit.

D. 112(r) Issues:

This facility is not subject to 112(r).

E. CAM Issues:

This facility is not subject to CAM because there are no control devices.

F. NC Air Toxics:

The facility is subject to both 2D .1100, 2Q .0705 and 2Q .0711.

VIII. Facility-wide Emissions Summary:

Emissions are summarized from the current First Time Title V application.

Pollutant	Actual Emissions (TPY, after controls)	Potential Emissions (TPY, before controls)	Potential Emissions (TPY, after controls)
PM	1.0	4.3	4.3
PM10	1.0	4.3	4.3
PM2.5	1.0	4.3	4.3
SO2	N/A	N/A	N/A
NOx	N/A	N/A	N/A
CO	N/A	N/A	N/A
VOC	13	120	120

The facility is considered to be Title V for estimated styrene (a Federal HAP) emissions of 13 TPY, which is greater than the 10 TPY threshold for any one HAP.

IX. Facility Compliance Status/Compliance History:

A review of IMPAQ as well as the physical file history located in the Central Files indicated that this facility has been issued a NOV/NRE in July/August, 2005 for operating without a Title V permit. At this time, the facility is considered to be in compliance based on information contained in this application. The facility is considered to be an existing source, and needed to be in compliance with the MACT on August 23, 2004. It is believed that the facility is currently in compliance with the MACT.

A statement of compliance (Form E5) was received on May 26, 2004, indicating that the facility is in compliance with all applicable regulations.

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.

XI. Conclusions, Comments, and Recommendations:

A PE seal was not needed for this application.

Form E5, "Title V Compliance Certification", was submitted for this application.

FRO recommends issuance of Permit No. 09550T01.

Recommend issuance of Permit No. 09550T01.