

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Air Permit Review

Permit Issue Date: XX

Region: Asheville Regional Office
County: Rutherford
NC Facility ID: 8100207
Inspector's Name: Mike Parkin
Date of Last Inspection: 07/13/2004
Compliance Code: 4/In Compliance - Certification

Facility Data			Permit Applicability (this application only)		
Applicant (Facility's Name): Mako Marine International, Inc. Facility Address: Mako Marine International, Inc. 1181 Old Caroleen Rd Forest City, NC 28043 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: NSPS: NESHAP: PSD: PSD Avoidance: NC Toxics: 112(r): Other:		
Contact Data			Application Data		
Facility Contact	Authorized Contact	Technical Contact	Application Number: 8100207.04A Date Received: 09/08/2004 Application Type: Modification Application Schedule: TV-1 st Time Existing Permit Data Existing Permit Number: 09322/R00 Existing Permit Issue Date: 04/21/2003 Existing Permit Expiration Date: 03/31/2008		
Tommy Wheeler Facility Manager (828) 288-6504 1181 Old Caroleen Road Forest City NC, 28043	Steve Smith Vice President (417) 873-5915 2500 East Kearny Street Springfield MO, 65898	Phil Kelsay Safety & Environmental Manager (417) 873-4559 2500 East Kearny Street Springfield MO, 65898			
Review Engineer: Kevin Godwin Review Engineer's Signature: _____ Date: _____			Comments / Recommendations: Issue 09322/T01 Permit Issue Date: XX Permit Expiration Date: XX		

1. Introduction

The U. S. Environmental Protection Agency (EPA) has given final approval to North Carolina's Title V operating permits program effective on October 1, 2001. This EPA approval triggered the requirements for Title V facilities to submit permit applications to the Division of Air Quality (DAQ). 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 1st 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 permit application.

2. Background Information

The 1st time Title V Operating Permit replaces an existing Air Quality Construction and Operation Permit No. 09322R00 which was issued on April 21, 2003 and is currently scheduled to expire on March 31, 2008.

Pursuant to 15A NCAC 2Q .0506, Mako Marine International, Inc. submitted its initial Title V application to the DAQ on September 8, 2004. The application was considered complete for processing on November 7, 2004. The DRAFT permit is required to go to public notice pursuant to 15A NCAC 2Q .0521.

3. Facility Description

Mako Marine International, Inc. manufactures fiberglass boats at this Rutherford County site. Processes include open molding of reinforced plastic composite boat parts and final boat assembly. Mako is currently permitted to operate two natural gas/No. 6 fuel oil-fired boilers, but they were never operated, have been dismantled and removed from the facility. Mako is currently permitted to operate a dry filter-type spray booth where wooden boat parts were to be finished, but the booth was never installed. The applicant requests that these items not be included in the 1st time Title V Operation Permit. Mako is currently permitted to operate a wooden boat woodworking operation with one bagfilter. The woodworking operation was determined to be an insignificant activity pursuant to 15A NCAC 2Q .0503(8) and the bagfilter was never installed.

4. Statement of Compliance

The DAQ has reviewed the compliance status of this facility. On its latest inspection conducted on July 20, 2005 by Mr. Mike Parkin (Asheville Regional Office), the facility appeared to be operating in compliance with all applicable requirements. The applicant has certified that the facility will be in compliance with all applicable requirements. The applicant has also certified that the facility will be in compliance with any applicable requirements taking effect during the term of the permit and will meet such requirements on a timely basis.

5. Summary of Emission Sources and Control Devices

The following table identifies all emission sources and associated control devices for which the 1st time Title V Operating Permit is being issued:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
MACT L-1	One fiberglass boat manufacturing operation including: One open molding and lamination process (gelcoat and resin application), Foam application process, One resin and gel coat applicator cleaning process, and One carpet and fabric adhesive process	N/A	Dry filter media on building exhaust outlets
RST-1 and RST-2	Two resin storage tanks (5,000 gallon capacity each)	N/A	N/A

6. Emission Source-by-Source Evaluation

A. Fiberglass boat manufacturing operation (ID No. L-1) and two resin storage tanks (ID Nos. RST-1 and RST-2)

1. Description

In this operation, boats are manufactured by open molding of reinforced plastic composite boat parts. Foam used for flotation is applied to the laminated molds using spray guns. The applicant reports

small amounts of MDI are emitted from the foam application process. The applicant also reports that MDI emissions are included in semi-annual and annual reports. Final boat assembly including motor installation also takes place at the facility.

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter including PM ₁₀	$E = 4.10 * P^{0.67}$ Where, E = allowable emissions (lb/hr) P = process weight rate (tph)	15A NCAC 2D .0515
Visible emissions	20 percent opacity when averaged over a six-minute period.	15A NCAC 2D .0521
Hazardous air pollutants (HAP)	Maximum achievable control technology (See Section 8)	15A NCAC 2D .1111 (40 CFR 63, Subpart VVVV)
Volatile organic compounds (VOC)	Less than 250 tons per consecutive 12-month period (See Section 7)	15A NCAC 2Q .0317 for avoidance of 15A NCAC 2D .0530
Volatile organic compounds (VOC)	Work practice standards (See Section 7)	15A NCAC 2Q .0958
Toxic air pollutants (TAP)	State-enforceable only: Styrene emissions shall not exceed 1,223 pounds per hour as established by air dispersion modeling (See Section 7)	15A NCAC 2D .1100
Toxic air pollutants (TAP)	State-enforceable only: Facility-wide TAP evaluation/demonstration (See Section 7)	15A NCAC 2Q .0705
Odorous emissions	State-enforceable only: Odorous emissions must be controlled (See Section 7)	15A NCAC 2D .1806

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

i.) Regulation Analysis

These operations are subject to 2D .0515 since particulates from the various coatings could be emitted from overspray. Allowable emissions of particulate matter from this operation shall be calculated by the following equation:

$$E = 4.10 * P^{0.67}$$

where, E = allowable emissions (lb/hr)
 P = process weight rate (tph)

For this operation the process weight rate is determined to be the weight of the part being coated as well as the weight of the coating materials, as reported in the application. Due to high weight of the parts relative to the weight of the coating materials, allowable emissions are typically much greater than actual emissions.

Particulate emissions to the atmosphere are minimized by dry filter media located at the building exhaust vents. Particulate emissions from this type of operation are negligible and with filters of this type typically achieving a removal efficiency of greater than 90 percent, compliance is expected.

ii.) **Monitoring/Recordkeeping Requirements**

The Permittee shall maintain production records which specify the types of materials and finishes processed and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.

iii.) **Reporting**

No reporting is required.

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

i.) The fiberglass boat manufacturing operation (**ID No. L-1**) was manufactured after July 1, 1971 and is therefore subject to 2D .0521(d). Visible emissions shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more that four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. Compliance with this regulation is indicated because the latest inspection report did not cite any exceedances.

ii.) Monitoring requirements

Based on the most recent inspection, no visible emissions are expected from this operation. Therefore, no monitoring, recordkeeping, or reporting is required to demonstrate compliance with this regulation.

7. Multiple Emission Source Limits

A. Fiberglass boat manufacturing operation (ID No. L-1) and two resin storage tanks (ID Nos. RST-1 and RST-2)

The following table provides a summary of limits and standards for the emission sources described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
VOC	Less than 250 tons per consecutive 12-month period	15A NCAC 2Q .0317 for avoidance of 2D .0530
VOC	Work practice standards	15A NCAC 2Q .0958
TAP	State enforceable only: styrene emissions shall not exceed 1,223 pounds per hour as established by air dispersion modeling	15A NCAC 2D .1100
TAP	State enforceable only: facility-wide TAP evaluation/demonstration	15A NCAC 2Q .0705
Odorous emissions	State enforceable only: odorous emission must be controlled	15A NCAC 2D .1806

i. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. In order to avoid applicability of 15A NCAC 2D .0530(g), the sources at the facility shall discharge into the atmosphere less than 250 tons of VOC per consecutive 12-month period.

Testing

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ found in Section 3.

Monitoring/Recordkeeping

- c. Calculations of VOC emissions per month shall be made at the end of each month. VOC emissions shall be determined by multiplying the total amount of each type of VOC-containing material consumed during the month by the VOC content of the material. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amounts of VOC containing materials or the VOC emissions are not monitored and recorded.
- d. Calculations and the total amount of VOC emissions shall be recorded monthly in a log (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the VOC emissions exceed this limit.

Reporting [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before March 1 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. The monthly VOC emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

ii. 15A NCAC 2Q .0958: WORK PRACTICES FOR SOURCES OF VOLATILE ORGANIC COMPOUNDS

- a. **Pursuant to 15A NCAC 2D .0958, for all sources that use volatile organic compounds (VOC) as solvents, carriers, material processing media, or industrial chemical reactants, or in similar uses that mix, blend, or manufacture volatile organic compounds, or emit volatile organic compounds as a product of chemical reactions, and whose emissions of VOC are greater than 15 pounds per day; the Permittee shall:**
 - i. store all material, including waste material, containing volatile organic compounds in tanks or in containers covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in use,
 - ii. clean up spills of volatile organic compounds as soon as possible following proper safety procedures,
 - iii. store wipe rags containing volatile organic compounds in closed containers,
 - iv. not clean sponges, fabric, wood, paper products, and other absorbent materials with volatile organic compounds,
 - v. transfer solvents containing volatile organic compounds used to clean supply lines and other coating equipment into closable containers and close such containers immediately after each use, or transfer such solvents to closed tanks, or to a treatment facility regulated under section 402 of the Clean Water Act,
 - vi. clean mixing, blending, and manufacturing vats and containers containing volatile organic compounds by adding cleaning solvent and close the vat or container before agitating the cleaning solvent. The spent cleaning solvent shall then be transferred into a closed container, a closed tank or a treatment facility regulated under section 402 of the Clean Water Act. [15A NCAC 2D .0958(c)]

- b. When cleaning parts with a solvent containing a volatile organic compound, the Permittee shall:
 - i. flush parts in the freeboard area,
 - ii. take precautions to reduce the pooling of solvent on and in the parts,
 - iii. tilt or rotate parts to drain solvent and allow a minimum of 15 seconds for drying or until all dripping has stopped, whichever is longer,
 - iv. not fill cleaning machines above the fill line,
 - v. not agitate solvent to the point of causing splashing. [15A NCAC 2D .0958(d)]

Monitoring

- c. To assure compliance with paragraphs (a) and (b) above, the Permittee shall, at a minimum, perform a visual inspection once per month of all operations and processes utilizing volatile organic compounds. The inspections shall be conducted during normal operations. If the required inspections are not conducted the permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

Recordkeeping

- d. The results of the inspections shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
 - i. the date and time of each inspection; and
 - ii. the results of each inspection noting whether or not noncompliant conditions were observed.

If the required records are not maintained the permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

Reporting

- e. The Permittee shall submit a summary report of the observations by March 1 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

STATE-ONLY TOXIC AIR POLLUTANT REQUIREMENT

- iii. **TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REQUIREMENT** - Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

EMISSION SOURCES	TOXIC AIR POLLUTANT	EMISSION LIMIT
Facility-wide	Styrene, State-enforceable only	1,223 pounds per hour

STATE-ONLY TOXIC AIR POLLUTANT REQUIREMENT

- iv. **15A NCAC 2Q .0705 “EXISTING FACILITIES AND SIC CALLS”**

The following table provides a summary of notification requirements for MACT facilities

REGULATED POLLUTANT	REQUIREMENT	APPLICABLE REGULATION
TAPs	Facility wide toxics evaluation/demonstration State-enforceable only	15A NCAC 2Q .0705

- a. For sources at a facility subject to a MACT standard, a permit application shall be required demonstrating compliance with 15A NCAC 2D .1100 by the same deadline that the facility is required to comply with the last MACT, excluding the MACT for combustion sources, as outlined in 15A NCAC 2Q .0705.

STATE-ONLY REQUIREMENT: ODOR REQUIREMENTS

v. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

8. MACT Applicability and Requirements

This facility is subject to MACT Subpart VVVV. A standard condition detailing all facility requirements under this regulation is included in this 1st time Title V permit.

9. Compliance Assurance Monitoring (CAM) Requirements

Pursuant to 15A NCAC 2D .0614, a CAM determination is not required as this facility does not use a control device to comply with an emission standard.

10. Permit Shield (including non-applicable requirements)

In accordance with 2Q .0512, the permit will contain a provision stating that compliance with the terms, conditions, and limitations of the Title V permit shall be deemed in compliance with applicable requirements specifically identified in the permit, as of the date of permit issuance. If the permit does not expressly state that a permit shield exists, then it shall be presumed not to provide such a shield.

11. Other Applicable Requirements

There are no other applicable requirements.

12. General Conditions

The General Conditions section of the Title V Operating Permit lists additional applicable rule requirements that the Permittee must adhere to, as with any other permit condition. These requirements in general are common to all Title V facilities. The general conditions include provisions such as annual fee payment, permit renewal and expiration, transfer of ownership or operation, property rights, submission of documents, inspections and entry procedures, reopen for cause, and severability.

13. Insignificant Activities

The insignificant activities listed in the application have been reviewed and verified. Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.

14. Public Notice

Pursuant to 15A NCAC 2Q .0521, a notice of the draft Title V Operating 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, South Carolina, and EPA.

15. Recommendations

The 1st time Title V application for Mako Marine International, Inc. has been reviewed by the DAQ to determine compliance with all procedures and requirements under 15A NCAC 2Q .0500 and 40 CFR Part 70. The DAQ had made a preliminary determination that the facility is complying or will achieve compliance as

specified in the permit with all applicable requirements. Therefore, the DAQ is proposing to issue the Title V Operating Permit upon completion of the public comment period and EPA review.