



Jeb Bush
Governor

Department of Environmental Protection

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

David B. Struhs
Secretary

AIR RESOURCES COMPLETENESS REVIEW

SOURCE NAME: Fiberglass Boat Manufacturer
APPLICANT: Stephen Dougherty, Vice President
ADDRESS: R. J. Dougherty Associates, Inc.
167 Bell Avenue
Oak Hill, Florida 32759

DATE RECEIVED: 02/21/00
DATE REVIEWED: 03/20/00
FILE: 1270163-001-AC

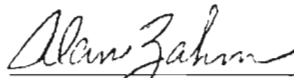
Your application for this project has been received and reviewed for completeness. The following item is needed from a professional engineer to complete your application.

1. The project would appear to be subject to section 112(g) of the Clean Air Act. Because of the projected emissions of styrene above 10 tons per year, the facility is defined as a major and subject to MACT. Provide the Department with a proposal to reduce emissions to meet the MACT requirements. Cindy Phillips in DARM in Tallahassee will perform the MACT analysis review on the Department's side.

Pursuant to Rule 62-4.055, the applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department. If an applicant requires more than ninety days in which to respond to a request for additional information, the applicant may notify the Department in writing of the circumstances, at which time the application shall be held in active status for one additional period of up to ninety days. Additional extensions shall be granted for good cause shown by the applicant. A showing that the applicant is making a diligent effort to obtain the requested additional information shall constitute good cause. Failure of an applicant to provide the timely requested information by the applicable deadline shall result in denial of the application.

If you have any questions, please fax me at 407.897.5963 or write to me at the above address.

Sincerely,


Alan Zahn, P.E.

Permitting Supervisor

20 Mar '00

Date

cc: Carolyn S. Seringer, PE,
Cindy Phillips, DARM

"Protect, Conserve and Manage Florida's Environment and Natural Resources"



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Orlando, Florida 32803-3767

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APR 26 2000

David B. Struhs
Secretary

BUREAU OF AIR REGULATION

AIR RESOURCES COMPLETENESS REVIEW

SOURCE NAME: Fiberglass Boat Manufacturer
APPLICANT: Stephen Dougherty, Vice President
ADDRESS: R. J. Dougherty Associates, Inc.
167 Bell Avenue
Oak Hill, Florida 32759

DATE RECEIVED: 03/30/00
DATE REVIEWED: 04/25/00
FILE: 1270163-001-AC

Your application for this project has been received and reviewed for completeness. The following item is needed from a professional engineer to complete your application.

1. The MACT analysis does not meet the criteria of MACT according to Ms. Phillips, the review engineer in Tallahassee. Therefore provide another MACT proposal, more stringent than the previous. Cindy Phillips in DARM in Tallahassee will perform the MACT analysis review on the Department's side.

Pursuant to Rule 62-4.055, the applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department. If an applicant requires more than ninety days in which to respond to a request for additional information, the applicant may notify the Department in writing of the circumstances, at which time the application shall be held in active status for one additional period of up to ninety days. Additional extensions shall be granted for good cause shown by the applicant. A showing that the applicant is making a diligent effort to obtain the requested additional information shall constitute good cause. Failure of an applicant to provide the timely requested information by the applicable deadline shall result in denial of the application.

If you have any questions, please fax me at 407.897.5963 or write to me at the above address.

Sincerely,

Alan Zahm
Alan Zahm, P.E.
Permitting Supervisor

25 Apr 00
Date

cc: Carolyn S. Seringer, PE,
Cindy Phillips, DARM

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MAY 19 2000

May 16, 2000

BUREAU OF AIR REGULATION

Ms. Cindy Phillips
Florida Department of Environmental Protection
Division of Air Resource Management
Twin Towers Office Building
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

SUBJECT: Title V Air Permit Application for the Proposed Dougherty Manufacturing Facility,
Volusia County, FL, File 1270163-001-AC - MACT Analysis Revision

Dear Ms. Phillips,

In response to Mr. Alan Zahm's (FDEP Central District) letter of April 25, 2000 regarding the R. J. Dougherty Associates, Inc. manufacturing facility, attached is revised information for your MACT analysis review.

Please contact me at (321) 269-1113 if you have any other questions or need additional information.

Sincerely,



Carolyn Seringer, P.E.
Vice President

Attachment

cc:

R.J. Dougherty Associates, Inc., 167 Bell Avenue, Oakhill, FL, 32759

Alan Zahm, FDEP Central District, 3319 Maguire Blvd., Suite 232, Orlando, Florida, 32803-3767

**Title V Air Permit Application
R. J. Dougherty Associates, Inc.**

Requirements for a Case-by-Case MACT Determination

1. Applicant Specified Control Technology:

- A. Use of production resins that contain a maximum average of 35% total HAP content, based on Manufacturer's Safety Data Sheets (MSDS), with compliance determined on a 3-month rolling average.
- B. Use of base gel coats and pigmented gel coats that contain a maximum average of 33% total HAP content, based on Manufacturer's Safety Data Sheets (MSDS), with compliance determined on a 3-month rolling average.
- C. Use of clear gel coats that contain a maximum average of 48% total HAP content, based on Manufacturer's Safety Data Sheets (MSDS), with compliance determined on a 3-month rolling average.
- D. Use of resins for making and repair of molds that contain a maximum average of 39% total HAP content, based on Manufacturer's Safety Data Sheets (MSDS), with compliance determined on a 3-month rolling average.
- E. Use of gel coats for making and repair of molds that contain a maximum average of 40% total HAP content, based on Manufacturer's Safety Data Sheets (MSDS), with compliance determined on a 3-month rolling average.
- F. Use of non-atomizing (flow coater) resin applicators.
- G. Use of resin and gel coat cleaning solvents that do not contain HAPs.

2. Required Information

- (i) Applicant: R. J. Dougherty Associates, Inc.
500 block of Air Park Road
Edgewater, FL 32132
- (ii) R. J. Dougherty Associates, Inc. (RJDA) is proposing to build a new facility on Air Park Road in Edgewater, FL to manufacture boats 14 feet in length and boat parts. The manufacturing process uses fiberglass reinforced plastics (FRP) and includes using uncured resins, a setting catalyst, and fiberglass material to produce a hardened plastic product that comprises the boat and/or boat parts.

Styrene is emitted in the manufacturing process from the use of resin and gel coat. It is expected that styrene emissions from this facility will exceed the MACT threshold of 10 tons per year.
- (iii) Expected Construction Commencement Date: 3/15/00 (This is the date groundbreaking at the facility was expected to begin. The expected construction commencement date for the Lamination Building, where the emissions will occur, is 4/25/00)
- (iv) Expected Construction Completion Date: 6/16/00
- (v) Anticipated Start-up Date: 7/15/00
- (vi) HAP Emitted: Styrene
(Note: no other known HAPs are emitted at this time.)

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**Title V Air Permit Application
R. J. Dougherty Associates, Inc.**

Estimated Emission Rate: 40 tons/year

- (vii) Federally Enforceable Emissions Limitations: None
- (viii) Maximum Capacity: 600,000 lbs/year resin used, 150,000 lbs/year gel coat used
Expected Capacity: Assume same as maximum.
- (ix) Emissions, Maximum Capacity: 40 tons/year HAPs
Emissions, Expected Capacity: Assume same as maximum.
- (x) Recommended Emission Limitation: 40 tons/year HAPs
- (xi) Selected Control Technology - See #1 above.

(A) Description of air handling system in lamination building:

Eight (8) vent ducts, four (4) on north and south sides of the building, will be installed. Each vent duct will be equipped with a 6500 cubic feet per minute (cfm) tube-axial fan (with a five (5) horsepower motor) mounted on the roof. The vent fans are 36 inches in diameter and approximately two (2) feet high. A 36 inch diameter duct will extend below the fan through the roof into the building. A particulate filter box, 22 feet long by three (3) feet wide by three (3) feet high, attaches to the duct at a height of eight (8) feet above the floor.

The fan housing is approximately two (2) feet high. Ten (10) feet of 36 inch diameter exhaust stack will be attached to the fan discharge. Air will exhaust from the stacks at ambient temperature and at 900 feet per minute.

(B) Other Information: RJDA does not use marine coatings, interior wood parts, carpets or fabrics in its production of boats and boat parts.

3. Supporting Documentation

No add-on control equipment is proposed. Add-on control options have been reviewed, but based on the existing state of technology application in the boat building industry, add-on controls are not believed to be economically or technically feasible. As a Small Business, RJDA does not have the in-house technical expertise or financial or other resources to test add-on control equipment.

References:

- a. Determinations of Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT), Sea Ray Boats, Inc., DEP File No. 0090093-003-AC.
- b. Reinforced Plastics and Boat Manufacturing MACT Standards Development, A Status Review, June 12, 1998.
- c. Assessment of Styrene Emission Controls for FRP/C and Boat Building Industries FINAL REPORT and Addendum, Emery J. Kong, Mark A. Bahner, and Sonji L. Turner, Research Triangle Institute, Research Triangle Park.

Determination of Maximum Achievable Control Technology (MACT)
R. J. Dougherty Associates, Inc. (RJDA)
Airpark Road Facility

The applicant, RJDA, proposes to construct and operate a manufacturing facility for spray lay-up and gelcoat application operations for building boats and boat parts. The facility will be located in the 500 block of Air Park Road, Edgewater, Volusia County, Florida.

The estimated annual tonnage of regulated hazardous air pollutants (HAPs) to be emitted is as follows:

Pollutants	Potential Emissions (tons/year)	MACT Significant Emission Rate (tons/year)
Styrene	> 10	10
Methyl ethyl ketone (MEK)	< 0.2	10
Total HAPs	> 25	25

Florida Administrative Code Rule 62-204.800(10)(d)2 requires a MACT review for all major sources of HAPs that are to be constructed or reconstructed, unless:

1. the source is specifically regulated or exempted from regulation under a standard issued pursuant to Section 112(d) "emission Standards," Section 112(h) "Work Practice Standards and Other Requirements," or Section 112(j) "Equivalent Emission Limitation by Permit," and incorporated in another subpart of 40 CFR Part 63; or
2. the owner or operator of the major source received an air construction permit for the construction or reconstruction project before July 1, 1997, or the source was constructed or reconstructed before July 1, 1997.

MACT Determination Requested by the Applicant

- A. Use of resins that contain a maximum average of 35% styrene, based on Manufacturer's Safety Data Sheets (MSDS), with compliance determined on a 3-month rolling average.
- B. Use of base gel coats and pigmented gel coats that contain a maximum average of 35% styrene, based on Manufacturer's Safety Data Sheets (MSDS), with compliance determined on a 3-month rolling average.
- C. Use of clear gel coats that contain a maximum average of 48% styrene, based on Manufacturer's Safety Data Sheets (MSDS), with compliance determined on a 3-month rolling average.
- D. Use of non-atomizing (flow coater) resin applicators.
- E. Use of resin and gel coat cleaning solvents that do not contain HAPs.

RJDA does not use marine coating, interior wood parts, carpets or fabrics in its production of boats and boat parts.

MACT Determination Procedure

In accordance with 40 CFR 63 Subpart B, which was adopted in Florida Administrative Code Chapter 62-204, *Maximum Achievable Control Technology (MACT) emission limitation for new sources* means the emission limitation which is not less stringent than the emission limitation achieved by the best controlled similar source, and which reflects the maximum degree of (r)eduction in emissions that the permitting authority, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed source.

Similar source means a stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed source such that the source could be controlled using the same control technology.

In addition, the regulations state that in making the MACT Determination, the Department should give consideration to:

- (a) Any Environmental Protection Agency proposed relevant emission standard pursuant to section 112(d) or section 112(h) of the Act or an adopted presumptive MACT determination for the source category which includes the constructed or reconstructed major source.
- (b) Available information as defined in 40 CFR 63.41.

EPA is currently working on a proposed MACT for reinforced boat manufacturing sources. Add-on control devices have been considered, but at this point in time, the MACT for new and reconstructed sources is expected to be equivalent to:

1. the use of production resins that contain a maximum average of 35% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
2. the use of non-atomizing application equipment for production resins;
3. the use of pigmented gel coats and base gel coats that contain a maximum average of 33% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
4. the use of clear gel coats that contain a maximum weighted average of 48% total HAP content, based on MSDS, with compliance determined on a 3-month rolling average;

5. the use of sprayed tooling resins, used for repair of molds, that contain a maximum average of 30% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
6. the use of non-atomized tooling resins, used for making and repair of molds, that contain a maximum average of 39% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
7. the use of tooling gel coats, used for making and repair of molds, that contain a maximum average of 40% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
8. no control of hazardous air pollutants emitted from mold sealing, releasing, stripping, and repair materials;
9. no control of hazardous air pollutants emitted from wood coating;
10. the use of resin and gel coat cleaning solvents that contain no HAPs;
11. the use of carpet and fabric adhesives that contain no HAPs;
12. no control on the use of carpentry adhesives;
13. the use of the highest styrene content in calculations when Manufacturer's Safety Data (MSD) Sheets with styrene content ranges are used.

MACT Determination

After reviewing the applicant's proposed MACT, information from EPA, information concerning facilities permitted in other states, and existing NESHAP standards, the Department has made the determination that Maximum Achievable Control Technology (MACT) for this facility shall be:

1. the use of production resins that contain a maximum average of 35% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
2. the use of non-atomizing application equipment for production resins;
3. the use of pigmented gel coats and base gel coats that contain a maximum average of 33% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;

4. the use of clear gel coats that contain a maximum weighted average of 48% total HAP content, based on MSDS, with compliance determined on a 3-month rolling average;
5. the use of sprayed tooling resins, used for repair of molds, that contain a maximum average of 30% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
6. the use of non-atomized tooling resins, used for making and repair of molds, that contain a maximum average of 39% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
7. the use of tooling gel coats, used for making and repair of molds, that contain a maximum average of 40% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
8. no control of hazardous air pollutants emitted from mold sealing, releasing, stripping, and repair materials;
9. no control of hazardous air pollutants emitted from coating processes for exterior wood parts.
10. the use of resin and gel coat cleaning solvents that contain no HAPs. An exception is the use solvent cleaning machines which comply with the requirements of 40 CFR 63 Subpart T- Halogenated Solvent Cleaning.
11. the use of carpentry adhesives that achieve a volatile hazardous air pollutant (VHAP) limit for contact adhesives, excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, of no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied using either of the compliance methods in 40 CFR 63.804(e).
12. the use of the highest styrene content in calculations when Manufacturer's Safety Data (MSD) Sheets with styrene content ranges are used.

RJDA may request alternative emissions standards in lieu of the above standards. For the FDEP to approve a request for alternative emissions standards, RJDA must satisfy requirements, not limited to but including the following:

- a. provide reasonable assurance of the of the resulting emissions being equivalent to FDEP's MACT level;
- b. propose a method of demonstrating compliance; and,
- c. propose a means of demonstrating on-going compliance.

Recordkeeping and Reporting Requirements:


1. RJDA shall compile records on a monthly basis and maintain those records for a minimum of 5 years. At a minimum, these records shall include:
 - a. the identification of all coatings used (resins, gelcoats, marine coatings, adhesives, etc.),
 - b. certification of the as-supplied HAP/VOC content of each batch of coating,
 - c. certification of the as-applied HAP/VOC content of each batch of coating,
 - d. the volume of each coating applied,
 - e. amount of thinner used, and
 - f. determination of compliance with the appropriate HAP limit.

2. Within 60 days following the end of each 6-month period after startup, RJDA shall submit a semi-annual compliance report.

Details of the Determination may be Obtained by Contacting:

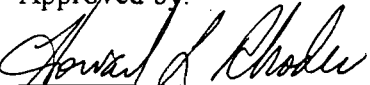
Cindy L. Phillips, P.E.
MS 5505
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

Recommended by:

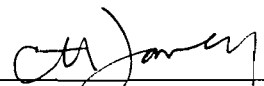


Cindy L. Phillips, P.E. Date
Air Toxics/Title III Section
Bureau of Air Regulation

Approved by:



Howard L. Rhodes, Director 7/12/00
Division of Air Resources Date
Management



C. H. Fancy, P.E. 7/10/00
Chief Date
Bureau of Air Regulation