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BUREAU OF AIR REGULATION

March 28, 2000

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

Dear Ms. Phillips,

In response to Mr. Alan Zahm's (FDEP Central District) Air Resources Completeness Review for the Title V permit application for the R. J. Dougherty Associates, Inc. manufacturing facility, attached is additional information for your MACT analysis review. I have also included a computer disk containing the Title V permit application files.

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

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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 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.

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 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

   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

   Emissions, Expected Capacity: Assume same as maximum.

(x) Recommended Emission Limitation: 40 tons/year styrene

(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.
- Making and repairing molds is a minor effort. Separate requirements for these activities, including record keeping, would be burdensome for RJDA.

(C) 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.