

Determination of Maximum Achievable Control Technology (MACT)
Toyota Marine Sports
Toyota Marine Sports Groveland

The applicant, Toyota Marine Sports, proposes to construct and operate a facility to manufacture sport fiberglass boats in a wide range of sizes and styles. The manufacturing operations will include gelcoating and lamination. The facility will be located at 1330 Crittenden Road, Groveland, Lake 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	45	10
Methyl Methacrylate (MMA)	< 10	10
Total HAPs	45	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 production resins containing a maximum of 35% (wt) total HAP, based on a 3-month weighted rolling average, applied by non-atomizing techniques or equivalent (or better) point value techniques.
- B. Use of pigmented and base gel coats containing a maximum of 33% (wt) total HAP, based on a 3-month weighted rolling average.
- C. Use of sprayed tooling resins, used for repair of molds, containing a maximum of 30% (wt) HAP content, based on a 3-month rolling average.
- D. Use of non-atomized tooling resins, used for repair of molds, containing a maximum of 39% (wt) HAP content, based on a 3-month rolling weighted average.
- E. Use of tooling gelcoats, used for making and repair of molds, containing a maximum of 40% (wt) HAP content, based on a 3-month rolling weighted average.
- F. Use of the highest styrene content in these determinations and calculations when manufacturer's Material Safety Data Sheets are used.

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 reduction 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.

On July 14, 2000, EPA proposed NESHAP for reinforced boat manufacturing sources. For open molding resin and gelcoat operations, the HAP emission limit is calculated using MACT model point value equations. Compliance with the HAP emissions limit may be demonstrated by averaging emissions with the MACT model point value equations, using add-on control devices, or complying with the following equivalent material HAP content requirements for each type of open molding operation:

1. the use of production resins, applied by non-atomizing equipment, that contain a maximum weighted-average of 35% total HAP content, with compliance determined on a 3-month rolling average;
2. the use of pigmented gel coats that contain a maximum weighted average of 33% total HAP content, with compliance determined on a 3-month rolling average;

3. the use of clear gel coats that contain a maximum weighted average of 48% total HAP content, with compliance determined on a 3-month rolling average;
4. the use of sprayed tooling resins that contain a maximum weighted average of 30% total HAP content as supplied, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
5. the use of non-atomized tooling resins that contain a maximum weighted average of 39% total HAP content as supplied, with compliance determined on a 3-month rolling average;
6. the use of tooling gel coats, that contain a maximum weighted average of 40% total HAP content, with compliance determined on a 3-month rolling average;

In addition, the proposed NESHAP also requires:

7. no control of hazardous air pollutants emitted from mold sealing and release agents, nor from mold stripping and cleaning solvents;
8. no control of hazardous air pollutants emitted from wood coating;
9. the use of resin and gel coat cleaning solvents that contain no HAPs;
10. the use of zero-HAP carpet and fabric adhesives;
11. the use of solvents containing no HAPs for routine cleaning of resin and gelcoat application equipment {Note: recycled cleaning solvents that contain trace amounts of HAP (5% or less by weight) are considered to contain no HAPs.};
12. no control of solvents used to clean cured resin and gel coat from application equipment;
13. no control of fiberglass hull and deck coatings;
14. no control of antifoulant coatings;
15. the use of the highest styrene content in calculations when Manufacturer's Safety Data (MSD) Sheets with styrene content ranges are used;
16. resin and gelcoat mixing containers with a capacity of 55 gallons or more must have covers with no visible gaps between the cover and the container, or between the cover and equipment passing through the container. Covers shall be inspected monthly; and

17: HAP-containing solvents used for removing cured resin or gelcoat must be stored in containers with covers. The covers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container. Covers shall be inspected monthly.

MACT Determination

After reviewing the applicant's proposed MACT and EPA's proposed NESHAP, and existing similar 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 weighted average of 35% (wt) 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. {Note: Equivalent point value techniques may be used if the permittee submits an implementation plan, meeting the requirements of the proposed NESHAP 40 CFR 63 Subpart VVVV, to the permitting authority and obtains approval of the plan.};
3. the use of pigmented gel coats and base gel coats that contain a maximum weighted average of 33% (wt) total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
4. the use of sprayed tooling resins, used for the building and repair of molds, that contain a maximum weighted average of 30% (wt) total HAP content as supplied, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
5. the use of non-atomized tooling resins, used for the building and repair of molds, that contain a maximum weighted average of 39% (wt) total HAP content as supplied, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
6. the use of tooling gel coats, used for the building and repair of molds, that contain a maximum weighted average of 40% (wt) total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
7. no control of hazardous air pollutants emitted from mold sealing and release agents, nor from mold stripping and cleaning solvents;
8. no control of hazardous air pollutants emitted from coating processes for wood parts;

9. the use of carpet and fabric adhesives containing no HAPs;
10. the use of solvents containing no HAPs for routine cleaning of resin and gelcoat application equipment {Note: recycled cleaning solvents that contain trace amounts of HAP (5% or less by weight) are considered to contain no HAPs.};
11. no control of solvents used to clean **cured** resin and gel coat from application equipment **unless** the solvent contains methylene chloride, perchlorethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight as a cleaning or drying solvent, and the solvent is held in a parts-cleaning container with a capacity greater than two gallons. In this case, the requirements of 40 CFR 63 Subpart T- "Halogenated Solvent Cleaning" apply;
12. the use of the highest styrene content in calculations when Manufacturer's Safety Data (MSD) Sheets with styrene content ranges are used;
13. resin and gelcoat mixing containers with a capacity of 55 gallons or more must have covers with no visible gaps between the cover and the container, or between the cover and equipment passing through the container. Covers shall be inspected monthly; and
14. HAP-containing solvents used for removing cured resin or gelcoat must be stored in containers with covers, or in solvent cleaning machines that meet the requirements of 40 CFR 63 Subpart T- "Halogenated Solvent Cleaning". If stored in containers with covers, the covers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container. Covers shall be inspected monthly.

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

- a. provide reasonable assurance 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. Toyota Marine Sports 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. if HAP or filler is added to coatings before use, the as-applied HAP/VOC content of the coating must be recorded. HAP catalysts used for resins and gelcoats should not be counted.
- d. the amount of each coating applied,
- e. amount of thinner or filler used, and
- f. determination of compliance with the appropriate HAP limit. {Note: A 3-month rolling average is determined at the end of every month (12 times per year) based on the past 3 months of data.}
- g. the results of monthly inspections of resin and gelcoat containers (including mixing containers) covers to check for gaps.

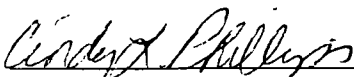
2. Within 60 days following the end of each 6-month period after startup, Toyota Marine Sports shall submit a semi-annual compliance report.

At such time as the U.S. EPA promulgates final regulations in 40CFR63 establishing standards for the Boat Manufacturing Industry, and the Department adopts such standards into its rules, the Toyota Marine Sports may provide reasonable assurances of its ability to comply with the new source standards and may then, for purposes of MACT compliance, comply with any less restrictive specific provision of the promulgated MACT for new sources rather than the more restrictive specific provisions of the case-by-case MACT. However, if this change results in a modification, as defined by the State Implementation Plan (S.I.P.), it shall be processed as a permit revision in accordance with the S.I.P.

Details of the Determination may be Obtained by Contacting:

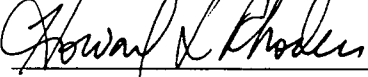
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Recommended by:

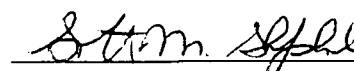

Cindy L. Phillips, P.E.
Air Toxics/Title III Section
Bureau of Air Regulation

7-27-00
Date

Approved by:


Howard L. Rhodes, Director
Division of Air Resources
Management

7/27/00
Date


C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

7/27/00
Date