

Determination of Maximum Achievable Control Technology (MACT)  
American Environmental Container Corporation

The applicant, American Environmental Container Corporation, proposes to construct new gelcoating and lamination bays at an existing fiberglass pool manufacturing facility. The facility is located at 2302 Lasso Lane, Lakeland, Polk 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	180	10
Total HAPs	180	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.

Technology Proposed by the Applicant:

- A. the use of production resins containing a maximum of 49.8% (wt) total styrene applied by a Fluid Impingement Technologies (FIT) (or equivalent) mechanical spray system;
- B. the use of gel coats containing a maximum of 31.9% (wt) total styrene;
- C. the use of tooling materials containing a maximum of 54% (wt) styrene content; and
- D. the use of mod-C for mold cleaning containing a maximum of 91% (wt) styrene content.

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.

EPA has recently proposed MACT standards for reinforced plastics composites production sources. For open molding resin and gelcoat operations, the HAP emission limit is expected to be calculated using MACT model point value equations. However, at the point in time that this MACT determination was originally developed, MACT for this type of existing source was expected to be equivalent to complying with the following requirements for each type of operation:

1. the use of production resins containing a maximum of weighted average of 48.3% (wt) total HAP content applied by a Fluid Impingement Technologies (FIT) mechanical spray system, with compliance determined by a 12-month rolling average;
2. the use of white or off-white gelcoats that contain a maximum weighted average of 30% total HAP content, with compliance determined on a 12-month rolling average;
3. the use of colored gelcoats that contain a maximum weighted average of 37% total HAP content, with compliance determined on a 12-month rolling average;
4. the use of tooling resins containing a maximum of weighted average of 55% (wt) total HAP content applied by a Fluid Impingement Technologies (FIT) mechanical spray system, with compliance determined on a 12-month rolling average;
5. the use of tooling gel coats, that contain a maximum weighted average of 38% total HAP content, with compliance determined on a 12-month rolling average;
6. the use of the highest styrene content in calculations when Manufacturer's Safety Data (MSD) Sheets with styrene content ranges are used;
7. 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

8. 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, information from EPA, information concerning facilities permitted in other states, 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 containing a maximum of weighted average of 48.3% (wt) total HAP content applied by Fluid Impingement Technologies (FIT) mechanical spray systems, with compliance determined on a 12-month rolling average;
2. the use of white or off-white gelcoats that contain a maximum weighted average of 30% (wt) total HAP content, with compliance determined on a 12-month rolling average;
3. the use of colored gelcoats that contain a maximum weighted average of 37% (wt) total HAP content, with compliance determined on a 12-month rolling average;
4. the use of tooling resins containing a maximum weighted average of 55% (wt) total HAP content applied by Fluid Impingement Technologies (FIT) mechanical spray systems, with compliance determined on a 12-month rolling average;
5. the use of tooling gel coats, that contain a maximum weighted average of 38% (wt) total HAP content, with compliance determined on a 12-month rolling average;
6. the use of 200 gallons or less per year of mod-C mold cleaner containing a maximum weighted average of 91% (wt) total HAP content, with compliance determined on a 12-month rolling average;
7. 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.};
8. 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;

9. the use of the highest styrene content in calculations when Manufacturer's Safety Data (MSD) Sheets with styrene content ranges are used;
10. 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
11. 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.

12. This MACT determination applies only to the newly constructed bays at the facility. The maximum weighted average percent (wt) total HAP content limit for each material listed in the previous conditions may be averaged for each material for the new bays only

13. American Environmental Container Corporation (AECC) may request alternative emissions standards in lieu of the above standards. For the FDEP to approve a request for alternative emissions standards, AECC 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.

Upon written approval from the FDEP, AECC may implement an alternative emission standard.

**{Permitting Note: When a 112(d) MACT standard is promulgated, or a 112(j) MACT is determined, for the Reinforced Plastic Composites Production source category, the Title V permit for this facility shall be reopened according to the reopening procedures in 40 CFR part 70 to incorporate the emission standard or determination. The permitting authority shall establish a compliance date in the permit that assures that AECC shall comply with the promulgated standard or determination as expeditiously as practicable, but not longer than 8 years after such standard is promulgated or a section 112(j) determination is made.}**

Recordkeeping and Reporting Requirements:

14. AECC shall compile records on a monthly basis and maintain those records for a minimum of 5 years. At a minimum, these records shall include:
- the identification of all coatings and mold cleaners used (resins, gelcoats, mod-C, etc.),
  - certification of the as-supplied HAP/VOC content of each batch of coating or cleaner,
  - if a 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.
  - the amount of each coating applied,
  - amount of thinner or filler used, and
  - determination of compliance with the appropriate HAP limit. {Note: A 12-month rolling average is determined at the end of every month (12 times per year) based on the past 12 months of data.}
  - the results of monthly inspections of resin and gelcoat containers (including mixing containers) covers to check for gaps.
15. Within 60 days following the end of each 6-month period after startup, AECC 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 1-14-02  
Cindy L. Phillips, P.E. Date  
Air Toxics/Title III Section  
Bureau of Air Regulation

Scott M. Sheplak 01/14/02  
Scott M. Sheplak, P.E. Date  
Title V P.E. Administrator  
Bureau of Air Regulation

Approved by:

Howard L. Rhodes 1/15/02  
Howard L. Rhodes, Director Date  
Division of Air Resources  
Management

*Permitting note for electronic versions: A signed copy will be on file with the permitting authority upon issuance of the final permit.*

D.E.P.  
SEP 25 2000

Southwest District Tampa

September 15, 2000

Mr. Jerry Kissel, P.E.  
FL Dept of Environmental Protection  
3801 Coconut Palm  
Tampa

re: American Environmental Container Corporation - 1050250-004-AV

Dear Mr. Kissel:

As we discussed, American Environmental Container Corporation currently operates as a Title V Major Source and has requested permission to add additional bays and increase facility emissions. The Draft Construction Permit referenced contains several comments and implications which we wish to clarify.

1. **Section 1, Subsection A** The facility is currently permitted to operate three bays with two lamination segments per bay; this permit authorizes eight work bays, each with two segments. The increase, which is the only part subject to MACT regulations, is five bays.
2. **References to VOC/OS materials**, such as those in Section II, relate only to photochemically active materials or other VOC species as specifically regulated by FDEP rule. For example, acetone, which is not regulated as a VOC species, would not be subject to these conditions.
3. **Section II.7.** authorizes the construction of eight bays; in fact, only 5 bays will be "new" for a total of eight. Upon completion of construction of the first "new" bay, activities in it and all subsequent "new" bays must comply with the MACT. The original three bays are unaffected.
4. **Section III.A.5.B.** The emission factors used to demonstrate compliance will be those of Table 1 of the referenced guidance document.

5. **MACT Determination Item 12** The MACT determination applies only to the "new" construction. The "maximum weighted average percent (wt) total HAP content limit for each material listed in the previous conditions" *may* be averaged for each material facility wide.
6. **MACT Determination Item 13** American Environmental Container Corporation may demonstrate compliance based on model point value equations. Further, American Environmental Container Corporation may introduce non-atomized application technology and materials with HAP contents less than currently utilized at the "existing" bays and receive and emissions "credit" for the reduction which may be applied to the "new" bays. Specific methods for applying this credit would be presented as discussed in Item 13 and approved by FDEP prior to implementation.

*not both*

Thank you for your attention in this matter. Should you have any questions, please contact me at my office.

Sincerely,



Tom T. John, P.E.

*L: C Phillips 10/2/00 -JK*

cc: American Environmental Container Corporation

TTJ:dj

09/15/00

J. Kissel re AECC TVConst