



John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

9/24/2013

Mr. Steven Balogh  
MAR-BAL, INC.  
10095 Queens Way  
AUBURN TOWNSHIP, OH 44023

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0228000194  
Permit Number: P0115375  
Permit Type: Renewal  
County: Geauga

Certified Mail

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
77 South High Street, 17th Floor  
Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NEDO



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
MAR-BAL, INC.**

Facility ID:	0228000194
Permit Number:	P0115375
Permit Type:	Renewal
Issued:	9/24/2013
Effective:	9/24/2013
Expiration:	9/24/2018





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
MAR-BAL, INC.

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**Final Permit-to-Install and Operate**  
 MAR-BAL, INC.  
**Permit Number:** P0115375  
**Facility ID:** 0228000194  
**Effective Date:** 9/24/2013

## Authorization

Facility ID: 0228000194  
 Application Number(s): A0048722  
 Permit Number: P0115375  
 Permit Description: Renewal FEPTIO for six (6) BMC mixers, emissions units P003 - P008, and a coating operation, emissions unit R001.  
 Permit Type: Renewal  
 Permit Fee: \$0.00  
 Issue Date: 9/24/2013  
 Effective Date: 9/24/2013  
 Expiration Date: 9/24/2018  
 Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

MAR-BAL, INC.  
 16930 MUNN RD  
 AUBURN TOWNSHIP, OH 44023

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

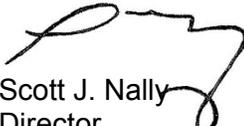
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office  
 2110 East Aurora Road  
 Twinsburg, OH 44087  
 (330)425-9171

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
 Scott J. Nally  
 Director



## Authorization (continued)

Permit Number: P0115375

Permit Description: Renewal FEPTIO for six (6) BMC mixers, emissions units P003 - P008, and a coating operation, emissions unit R001.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

<b>Emissions Unit ID:</b>	<b>R001</b>
Company Equipment ID:	UV Clear Coat
Superseded Permit Number:	P0109849
General Permit Category and Type:	Not Applicable

**Group Name: BMC Mixers**

<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	BMC Mixer - Werner Pflederer 100 gallon (800 lb) Sigma
Superseded Permit Number:	P0109849
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P004</b>
Company Equipment ID:	BMC Mixer - Littleford FKM-600-D 95 gallon (600 lb) Plow
Superseded Permit Number:	P0109849
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P005</b>
Company Equipment ID:	BMC Mixer - J.H. Day Cincinnatus 200 gallon (1,200 lb) Sigma
Superseded Permit Number:	P0109849
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P006</b>
Company Equipment ID:	BMC Mixer - Baker-Perkins 100 gallon (800 lb) Sigma
Superseded Permit Number:	P0109849
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P007</b>
Company Equipment ID:	BMC Mixer - Littleford FKM-600-D 95 gallon (600 lb) Plow
Superseded Permit Number:	P0109849
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P008</b>
Company Equipment ID:	BMC Mixer - Littleford FKM-600-D 95 gallon (600 lb) Plow
Superseded Permit Number:	P0109849
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
MAR-BAL, INC.  
**Permit Number:** P0115375  
**Facility ID:** 0228000194  
**Effective Date:** 9/24/2013

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Northeast District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting<sup>1</sup> a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

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<sup>1</sup>Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).



**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



**Final Permit-to-Install and Operate**  
MAR-BAL, INC.  
**Permit Number:** P0115375  
**Facility ID:** 0228000194  
**Effective Date:** 9/24/2013

## **B. Facility-Wide Terms and Conditions**



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.
2. Requirements of OAC rule 3745-21-25:
  - a) VOC control requirements:
    - (1) The facility proposed to restrict facility-wide VOC emissions to less than the threshold of one hundred (100) tons per year. The permittee shall meet the VOC emissions limits in Table 2 of OAC rule 3745-21-25.
    - (2) If the facility has VOC emissions equal to or greater than the threshold of one hundred (100) tons per year from the combination of all open molding, centrifugal casting, continuous lamination/casting, pultrusion, SMC manufacturing, mixing, and BMC manufacturing, the permittee shall reduce the total VOC emissions from these operations by at least ninety-five percent (95%) by weight. As an alternative to meeting 95% by weight reduction, the permittee may meet the VOC emissions limits in Table 3 of OAC rule 3745-21-25. The facility's VOC emissions threshold shall be calculated in accordance with OAC rule 3745-21-25(F).
    - (3) Once the facility equals or exceeds the one hundred (100) tons of VOC per year threshold of OAC rule 3745-21-25(D)(3), it is always subject to the requirements of the OAC rule 3745-21-25(D)(3).
  - b) Recordkeeping Requirements:
    - (1) In accordance with OAC rule 3745-21-25(P)(1), the permittee shall keep the following records:
      - a. a copy of each applicability notification and compliance status report submitted to comply with this rule, including all documentation supporting any applicability or compliance status; and
      - b. a certified statement that operations are in compliance with the work practice standards specified in Table 1 of the rule, as applicable.

[OAC rule 3745-21-25(P)(1)]



- (2) In accordance with OAC rule 3745-21-25(P)(4), all records specified in section B.2.b)(1) above shall be retained by the owner or operator for a period of not less than five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record and shall be made available to the director or any authorized representative of the director for review during normal business hours.

[OAC rule 3745-21-25(P)(4)]

c) Reporting Requirements:

- (1) In accordance with OAC rule 3745-21-25(Q)(1), the permittee shall submit semiannual compliance status reports containing the following information:

- a. Company name and address;
- b. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;
- c. Date of the report and beginning and ending dates of the reporting period;
- d. If there are no deviations from any VOC emissions limitations and operating limits that apply and there are no deviations from the work practice standards in Table 1 of the OAC rule 3745-21-25, a statement that there were no deviations from VOC emissions limitations, operating limits, or work practice standards during the reporting period;
- e. For each deviation from a VOC emissions limitation or operating limit and for each deviation from a work practice standard that occurs at an affected operation where a continuous monitoring system (CMS) is not used to comply with the VOC emissions limitation, operating, or work practice standard in OAC rule 3745-21-25, the compliance report shall contain the information in the following:
  - i. The total operating time of each of the following operations during the reporting period:
    - (a) Open molding;
    - (b) Compression/injection molding;
    - (c) Centrifugal casting;
    - (d) Continuous lamination;
    - (e) Continuous casting;
    - (f) Polymer casting;
    - (g) Pultrusion;
    - (h) SMC manufacturing;



- (i) BMC manufacturing;
  - (j) Mixing;
  - (k) Cleaning of equipment used in reinforced plastic composites manufacture;
  - (l) VOC-containing materials storage; and
  - (m) Repair operations on reinforced plastic composites parts that are manufactured at the facility.
- ii. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- f. Where multiple compliance options are available, the permittee shall state in this compliance report if the permittee has changed compliance options since the last compliance report.

The semiannual compliance status reports shall be submitted no later than thirty calendar days after the end of each 6-month period to the appropriate Ohio EPA district office or local air agency. The first compliance report shall cover the period beginning on the compliance date that is specified in section B.2.d) below and ending on June thirtieth or December thirty-first, whichever date is the first date following the end of the first calendar half after the compliance date in section B.2.d). Each subsequent compliance report shall cover the semiannual reporting period from January first through June thirtieth or the semiannual reporting period from July first through December thirty-first.

[OAC rule 3745-21-25(Q)(1)]

- (2) In accordance with OAC rule 3745-21-25(Q)(4), the permittee shall report if the facility exceeded the one hundred tons of VOC per year emissions threshold and if that exceedance would make the facility subject to OAC rule 3745-21-25(D)(3).

[OAC rule 3745-21-25(Q)(4)]

- (3) In accordance with OAC rule 3745-21-25(S)(1), the permittee of an affected operation, as described in section B.2.c)(1)e.i. above, shall notify the appropriate Ohio EPA district office or local air agency in writing that such operation is subject to OAC rule 3745-21-25. The notification, which shall be submitted no later than sixty days after December 14, 2009, shall provide the following information:

- a. name and address of the owner or operator;
- b. address (i.e., physical location) of the facility;
- c. equipment description and Ohio EPA application number (if assigned) of the affected operation;



- d. identification of the applicable requirements, the means of compliance, and the compliance date for the affected operation under OAC rule 3745-21-25; and
- e. regarding a permit for the affected operation, whichever of the following is applicable:
  - i. submission of an application for an operating permit, a permit modification, or an operating permit renewal in accordance with OAC rule 3745-31-02; or
  - ii. submission of a statement of intent to submit an application for a Title V permit or modification of a Title V permit accordance with OAC rule 3745-77-02 or 3745-77-06, respectively.

[OAC rule 3745-21-25(S)(1)]

- d) Compliance date of OAC rule 3745-21-25 for this facility is December 14, 2009

[OAC rule 3745-21-25(R)(1)]

- e) Calculation of facility's VOC emissions threshold

- (1) In accordance with OAC rule 3745-21-25(F)(1), to calculate the facility's VOC emissions threshold in tons per year for purposes of determining which requirements apply under OAC rule 3745-21-25 (D), the permittee shall use the procedures in section B.2.e)(2) below. A facility's VOC emissions threshold pertains to the following operations: open molding, centrifugal casting, continuous lamination/casting, pultrusion, SMC manufacturing, mixing, and BMC manufacturing. For facility's VOC emissions threshold, calculate VOC emissions prior to any add-on control device, and do not include VOC emissions from any resin or gel coat used in operations subject to the boat manufacturing NESHAP, 40 CFR Part 63, Subpart VVVV, or from the manufacture of large parts as defined in OAC rule 3745-21-25(D)(4). This facility is an "existing facility".

[OAC rule 3745-21-25(F)(1)]

- (2) In accordance with OAC rule 3745-21-25(F)(3), the permittee may use the procedures in either section B.2.e)(2)a or section B.2.e)(2)b below for the operations specified in section B.2.e)(1) above. If the emission factors for this facility have changed over the period of time prior to its initial compliance date due to incorporation of pollution-prevention control techniques, the facility may base the average emission factor on its operations as they exist on the compliance date. If the facility has accepted an enforceable permit limit that would result in less than one hundred tons per year (per rolling, 12-month period) of VOC measured prior to any add-on controls, and can demonstrate that it will operate at that level subsequent to the compliance date, it can be deemed to be below the one hundred tons per year threshold.

- a. Use a calculated emission factor

Calculate a weighted average VOC emissions factor on a pounds per ton of resin, monomer, or gel coat basis. Base the weighted average on the prior twelve months of operation. Multiply the weighted average VOC emissions factor by



resin, monomer or gel coat use over the same period. The permittee may calculate this VOC emissions factor based on the equations in Table 1 to Subpart WWWW of 40 CFR Part 63, or the permittee may use any VOC emission factor approved by USEPA, such as emission factors or emission factor equations from AP-42, or site-specific VOC emissions factors if they are supported by VOC emissions test data. The organic HAP emission factors in Table 1 to Subpart WWWW of 40 CFR Part 63 are equivalent to the VOC emissions factors for this rule.

b. Conduct performance testing

Conduct performance testing using the test procedures in 40 CFR 63.5850 or paragraph (C) of rule 3745-21-10 of the Administrative Code to determine a site-specific VOC emissions factor in units of pounds of VOC per ton of resin, monomer, or gel coat used. Conduct the test under conditions expected to result in the highest possible VOC emissions. Multiply this factor by annual resin, monomer, or gel coat use to determine annual VOC emissions. This calculation shall be repeated and reported annually.

[OAC rule 3745-21-25(F)(3)]

- (3) In accordance with OAC rule 3745-21-25(F)(4), the facility shall initially perform this calculation based on its 12-month of operation prior to December 14, 2009, and include this information with its applicability notification report. The facility shall repeat the calculation based upon its resin, monomer, and gel coat use in the 12 months prior to its compliance date, and submit this information with their initial compliance report.

[OAC rule 3745-21-25 (F)(4)]

- (4) In accordance with OAC rule 3745-21-25(F)(5), after the initial compliance date, the facility shall calculate VOC emissions over the 12-month period ending June thirtieth or December thirty-first, whichever date is the first date following the compliance date specified in section B.2.d) above. Subsequent calculations should cover the periods in the semiannual compliance reports.

3. Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.



**Final Permit-to-Install and Operate**  
MAR-BAL, INC.  
**Permit Number:** P0115375  
**Facility ID:** 0228000194  
**Effective Date:** 9/24/2013

## **C. Emissions Unit Terms and Conditions**



1. R001, UV Clear Coat

**Operations, Property and/or Equipment Description:**

UV Clear Coating Line, including paint mix room, paint spray booth, UV cure oven, and clean-up activities for coating misc. plastic/metal parts.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. b)(1)e and d)(6)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)d, b)(2)e, c)(1), d)(10)b, d)(10)d, d)(10)f, e)(3), f)(1)e, f)(1)f and f)(1)g

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-11(C)	See c)(2), c)(3), d)(1), d)(2), d)(3), d)(4) and d)(5).
b.	OAC rule 3745-31-05(A)(3) as effective 11/30/2001	See b)(2)a and b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b) as effective 12/01/2006	See b)(2)c and b)(2)d.
d.	OAC rule 3745-31-05(D)	See b)(2)e and c)(1).
e.	ORC 3704.03(F)	See d)(6).
<b>For coating plastic parts and products</b>		
f.	OAC rule 3745-21-07(M)(2)	See b)(2)f.
<b>For coating metal parts and products</b>		
g.	OAC rule 3745-21-09(U)(1)(a)	See b)(2)g.

(2) Additional Terms and Conditions

a. Organic compound (OC) emissions from this emissions unit shall not exceed:



- i. 7.30 tons per year from coatings; and
  - ii. 13.40 pounds per day and 2.45 tons per year from cleanup materials.
- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05 (A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply: b)(1)b, b)(2)a, b)(2)b, d)(8), f)(1)b, f)(1)c and f)(1)d.
- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of State Implementation Plan.
- d. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05 (A)(3)(b) do not apply to the uncontrolled OC emissions from this air contaminant source since the potentials to emit for OC emissions are less than 10 tons per year.
- e. The permittee voluntarily proposed the following facility-wide restrictions to avoid Title V requirements, as well as MACT requirements under 40 CFR Part 63, Subpart M, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products, Subpart P, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products, and Subpart W, National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production:
- i. facility-wide VOC emissions shall not exceed 99.00 tons per year, based upon a rolling, 12-month summation of monthly emissions;
  - ii. each individual hazardous air pollutant (HAP) emissions facility-wide shall not exceed 9.90 tons per year, based upon a rolling, 12-month summation of monthly emissions; and
  - iii. total combined HAPs emissions facility-wide shall not exceed 24.90 tons per year, based upon a rolling, 12-month summation of monthly emissions.
- f. In accordance with OAC rule 3745-21-07(M)(3)(a), OAC rule 3745-21-07(M)(2) is not applicable because the emissions unit commenced installation after the effective date of OAC rule 3745-21-07(M).



- g. Coatings applied in this emissions unit for miscellaneous metal parts and products shall not exceed 4.3 pounds of VOC per gallon of coating, excluding water and exempt solvents.

c) **Operational Restrictions**

- (1) This emissions unit has been in operation for more than 12 months, as such, the permittee has existing records to generate the rolling, 12-month summation of the emissions, upon issuance of this permit. Compliance with the annual facility-wide emission limitations for VOC, each individual HAP, and combined total HAPs shall be based upon a rolling, 12-month summation of the emissions of VOC, each single HAP, and combined total HAPs.
- (2) The permittee shall operate the dry filtration system for the control of particulate emissions whenever this emissions unit is in operation and shall maintain the dry particulate filter in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
- (3) In the event the particulate filter system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the dry particulate filter, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (2) The permittee shall conduct periodic inspections of the dry particulate filter to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.
- (3) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry particulate filter while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (4) The permittee shall document each inspection (periodic and annual) of the dry particulate filter system and shall maintain the following information:
  - a. the date of the inspection;
  - b. a description of each/any problem identified and the date it was corrected;



- c. a description of any maintenance and repairs performed; and
- d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

- (5) The permittee shall maintain records that document any time periods when the dry particulate filter was not in service when this emissions unit was in operation, as well as, a record of all operations during which the dry particulate filter was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.
- (6) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified FEPTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the material or use of new materials, which would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year, may require the permittee to apply for and obtain a new FEPTIO.
- (7) The permittee, having chosen to demonstrate compliance through the use of compliant coatings for coating metal parts and products, shall collect and record the following information each month for the coating:
  - a. the name and identification number of each coating, as applied; and
  - b. the mass of VOC per volume (pounds/gallon) of each coating, excluding water and exempt solvents, as applied, calculated as follows for  $C_{VOC,2}$ :

$$C_{VOC,2} = (D_C)(W_{VOC}) / V_S + V_{VOC}$$

where:

$D_C$  = the density of coating, in pounds of coating per gallon of coating;

$W_{VOC} = W_{VM} - W_W - W_{ES}$ ;

$V_S$  = volume fraction of solids in coating, in gallons of solids per gallon of coating;

$V_{VOC} = V_{VM} - V_W - V_{ES}$ ;

$W_{VM}$  = weight fraction of volatile matter in coating, in pound of volatile matter per pound of coating;

$W_W$  = weight fraction of water in coating, in pound of water per pound of coating;



$W_{ES}$  = weight fraction of exempt solvent in coating, in pound of exempt solvent per pound of coating;

$V_{VM}$  = volume fraction of volatile matter in coating, in gallon of volatile matter per gallon of coating;

$V_W$  = volume fraction of water in coating, in gallon of water per gallon of coating;  
and

$V_{ES}$  = volume fraction of exempt solvent in coating, in gallon of exempt solvent per gallon of coating.

If the permittee mixes complying coatings at a line, it is not necessary to record the VOC content of the resulting mixture.

- (8) The permittee shall collect and record the following information each day for this emissions unit:
- a. the company identification for each cleanup material employed;
  - b. the OC content of each cleanup material, in pounds OC per gallon;
  - c. the number of gallons of each cleanup material employed minus the number of gallons of each cleanup material recovered for disposal; and
  - d. the total OC emissions from all cleanup materials, in pounds per day, i.e., the summation of the products of "b" times "c" for each cleanup material.
- (9) The permittee shall calculate and record the following information each month for this emissions unit:
- a. the company identification for each coating employed;
  - b. the number of gallons of each coating employed;
  - c. the OC content of each coating, in pounds OC per gallon;
  - d. the monthly OC emissions from coatings employed in this emissions unit, in pounds per month, i.e., the summation of the products of "b" times "c" for the month, in pounds per month;
  - e. the number gallons of each cleanup material employed minus the number of gallons of each cleanup material recovered for disposal;
  - f. the individual HAP content(s) for each coating and cleanup material applied, in pounds per gallon;
  - g. the total emissions of each individual HAP from all coatings and cleanup materials applied, i.e., the summation of the products of "b" times "f" plus the summation of products of "e" times "f", in pounds per month;





- iii. an identification of each month during which the rolling, 12-month facility-wide total combined HAPs emissions exceeded 24.90 tons, and the actual rolling, 12-month facility-wide total combined HAPs emissions for each such month;
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (4) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

Coatings applied in this emissions unit for coating metal parts and products shall not exceed 4.3 pounds of VOC per gallon of coating, excluding water and exempt solvents.

- Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(7).

- b. Emission Limitation:

OC emissions from coatings employed in this emissions unit shall not exceed 7.30 tons per year.



Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(9)d and shall be the sum for the calendar year.

c. Emission Limitation:

OC emissions from cleanup materials employed in this emissions unit shall not exceed 13.40 pounds per day.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(8)d.

d. Emission Limitation:

OC emissions from cleanup materials employed in this emissions unit shall not exceed 2.45 tons per year

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(8)d and shall be the sum of the calendar year.

e. Emission Limitation:

Facility-wide VOC emissions shall not exceed 99.00 tons per year, based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(10)b.

f. Emission Limitation:

Facility-wide each individual HAP emissions shall not exceed 9.90 tons per year, based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(10)d.

g. Emission Limitation:

Facility-wide total combined HAP emissions shall not exceed 24.90 tons per year, based upon a rolling, 12-month summation of monthly emissions.



Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(10)f.

- (2) Any determination of VOC content, solids contents, or density of coating material or cleanup material shall be based on the coating materials as employed (as applied), including the addition of any thinner or viscosity reducer to the coatings. In accordance with OAC rule 3745-21-04(B)(5), the permittee shall determine the composition of the coatings or cleanup material by formulation data supplied by the manufacturer of the coating materials, or from data determined by an analysis of each coating, as applied, by Reference Method 24 or Method 24A. If, pursuant to section 11.4 of Method 24, 40 CFR Part 60, Appendix A (revised as of July 1, 2001), an owner or operator determines that Method 24 or Method 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 and/or Method 24A.
- g) Miscellaneous Requirements
- (1) None.



**2. Emissions Unit Group -BMC Mixers: P003,P004,P005,P006,P007,P008,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P003	BMC Mixer No. 1053 Werner Pfleederer 100 gallon (800 lb) Sigma Mixer with Baghouse Control.
P004	BMC Mixer No. 1056 Littleford FKM-600-D 95 gallon (600 lb) Plow Mixer with Baghouse Control.
P005	BMC Mixer No. 1051 J.H. Day Cincinnatus 200 gallon (1,200 lb) Sigma Mixer with Baghouse Control.
P006	BMC Mixer No. 1052 Baker-Perkins 100 gallon (800 lb) Sigma Mixer with Baghouse Control.
P007	BMC Mixer No. 1057 Littleford FKM-600-D 95 gallon (600 lb) Plow Mixer with Baghouse Control.
P008	BMC Mixer No. 1058 Littleford FKM-600-D 95 gallon (600 lb) Plow Mixer with Baghouse Control.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. b)(1)i, d)(7), d)(8), d)(9), d)(10) and e)(1)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)f, b)(2)j, c)(1), d)(5)b, d)(5)d, d)(5)f, e)(2), f)(1)g, f)(1)h and f)(1)i

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	See b)(2)a.
b.	OAC rule 3745-17-11	Particulate emissions from each emissions unit shall not exceed 0.551 pound per hour.
c.	OAC rule 3745-31-05(A)(3) as effective 11/30/2001	See b)(2)b, b)(2)c, b)(2)d, b)(2)e, b)(2)f and b)(2)g.
d.	OAC rule 3745-31-05(A)(3)(b) as effective 12/01/2006	See b)(2)h and b)(2)i.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	ORC 3704.03(T)	See b)(2)c.ii, b)(2)d, and b)(2)f.
f.	OAC rule 3745-31-05(D)	See b)(2)j and c)(1).
g.	OAC rule 3745-21-07(M)	See b)(2)k.
h.	OAC rule 3745-21-25(D)	See c)(2).
i.	ORC 3704.03(F)	See d)(7), d)(8), d)(9), d)(10) and e)(1).

(2) Additional Terms and Conditions

- a. The visible particulate emissions from the dust collector stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05 (A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply: b)(1)c, b)(2)b, b)(2)c.i, b)(2)e, b)(2)g, f)(1)a, f)(1)d, and f)(1)e.
- c. Particulate emissions from all BMC mixers operated at the facility, combined, shall not exceed the following:
  - i. 1.0 pound per hour; and
  - ii. 4.38 tons per year.
- d. Organic compounds (OC) emissions from cleanup materials for all BMC mixers at the facility shall not exceed 9.90 tons per year.
- e. Volatile organic compound (VOC) emissions from each emissions unit shall not exceed the following:
  - i. Monthly emission limits:
    - (a) for each emissions unit P003 and P006, 430.0 pounds per month;
    - (b) for each emissions unit P004, P007, and P008, 961.20 pounds per month; and
    - (c) for emissions unit P005, 398.07 pounds per month.
  - ii. Annual emission limits:



- (a) for each emissions unit P003 and P006, 2.58 tons per year;
    - (b) for each emissions unit P004, P007, and P008, 5.77 tons per year; and
    - (c) for emissions unit P005, 2.39 tons per year.
  - f. The permittee shall use a shaking-type dust collector with timer, which shall periodically clean the dust cake from the bags, to control the particulate emissions generated from the operation of all BMC mixers at this facility.
  - g. The permittee shall use VOC vapor-suppressed bags to store the mixed materials prior to further use.
  - h. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of State Implementation Plan.
  - i. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to VOC emissions from each air contaminant source since the uncontrolled potential to emit for VOC emissions is each less than 10 tons per year.
  - j. The permittee voluntarily proposed the following facility-wide restrictions to avoid Title V requirements, as well as MACT requirements under 40 CFR Part 63, Subpart M, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products, Subpart P, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products, and Subpart W, National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production:
    - i. facility-wide VOC emissions shall not exceed 99.00 tons per year, based upon a rolling, 12-month summation of monthly emissions;
    - ii. each individual hazardous air pollutant (HAP) emissions facility-wide shall not exceed 9.90 tons per year, based upon a rolling, 12-month summation of monthly emissions; and
    - iii. total combined HAPs emissions facility-wide shall not exceed 24.90 tons per year, based upon a rolling, 12-month summation of monthly emissions.
  - k. Emissions units P003, P004, P005, P006, P007, and P008 are not equipped with control equipment for OC emissions. In accordance with OAC rule 3745-21-07(M)(3), these emissions units are not subject to the requirements of OAC rule 3745-21-07(M)(2).
- c) Operational Restrictions
- (1) This emissions unit has been in operation for more than 12 months, as such, the permittee has existing records to generate the rolling, 12-month summation of the emissions, upon issuance of this permit. Compliance with the annual facility-wide



emission limitations for VOC, each individual HAP, and combined total HAPs shall be based upon a rolling, 12-month summation of the emissions of VOC, each single HAP, and combined total HAPs.

- (2) Emissions units P003, P004, P005, P006, P007, and P008 are mixing or BMC manufacturing operations, and shall meet the following work practices:
  - a. Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1.0 inch are permissible around mixer shafts and any required instrumentation;
  - b. Close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety. Vents routed to a ninety-five per cent (95%) efficient control device are exempt from this requirement; and
  - c. Keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall properly operate and maintain the timer in the dust collector, which shall periodically clean the dust cake from the bags, while the emissions unit is in operation. The timer shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall check the timer on a weekly basis.
- (2) The permittee shall perform weekly checks, when any of emissions units P003, P004, P005, P006, P007, or P008 is in operation and when the weather conditions allow, for any visible particulate emissions from the stack of the dust collector serving these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in operation log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the weekly check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that



no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (3) The permittee shall record the following information monthly for each emissions unit:
- a. the name and identification number of each batch of materials mixed in the emissions unit;
  - b. the amount of materials used in each batch, defined as "AM", in pounds per batch;
  - c. the percentage of VOC in the materials, by weight, in each batch, defined as "ST%", in pounds VOC per pound of the materials;
  - d. the total VOC emissions from the emissions unit for the month, defined as "Mvoc", in pounds per month. "M<sub>VOC</sub>" shall be calculated as follows:

$$M_{voc} = \sum_{i=1}^n [(AM)(ST\%)(EF)]_i$$

where:

i = subscript denoting an individual mixing batch of this emissions unit;

n = the total number of mixing batches for this emissions unit; and

EF = emission factors:

- i. 0.0062 lb VOC (styrene) emissions per pound of styrene input, for emissions units P003 and P006 (800 lbs sigma type BMC mixers), based upon stack test conducted at the facility on February 7<sup>th</sup>, 2006;
  - ii. 0.0033 lb VOC (styrene) emissions per pound of styrene input, for emissions units P004, P007, and P008 (600 lbs plow type BMC mixers), based upon stack test conducted at the facility on January 18<sup>th</sup>, 2006; and
  - iii. 0.0041 lb VOC (styrene) emissions per pound of styrene input, for emissions unit P005 (1200 lbs plow type BMC mixer), based upon stack test conducted at the facility on January 17<sup>th</sup>, 2006.
- (4) The permittee shall keep the following cleanup material information each month for all BMC mixers in the facility:
- a. the identification of each cleanup material employed;
  - b. the volume of each cleanup material employed, defined as "Vcleanup", in gallons per month;



- c. the OC content of each cleanup material, defined as "OCcontent", in pounds OC per gallon of the cleanup material;
- d. the total OC emissions from cleanup materials, "OCcleanup", in pounds per month, shall be calculated as follows:

$$OCcleanup = \sum_{j=1}^m [(Vcleanup)(OCcontent)]_j$$

where:

j = subscript denoting an individual cleanup material; and

m = the total number of cleanup materials employed.

- (5) The permittee shall keep the following information each month:
  - a. the monthly facility-wide VOC emissions, in tons per month;
  - b. the rolling, 12-month summation of the total facility-wide VOC emissions, in tons;
  - c. the monthly facility-wide emissions of each individual HAP, in tons per month;
  - d. the rolling, 12-month summation of each individual HAP emissions facility-wide, in tons;
  - e. the monthly facility-wide emissions of total combined HAPs, in tons per month; and
  - f. the rolling, 12-month summation of total combined HAPs emissions facility-wide, in tons.
- (6) The permittee shall conduct a daily inspection and maintain a log of these inspections for each emissions unit. The log shall include the compliance status of each work practice standard identified in section c)(1) above and shall contain the following information:
  - a. whether the emissions unit was in operation;
  - b. whether the mixer cover was employed, except when adding materials or changing covers to the mixing vessels;
  - c. whether there was a visible gap present in the mixer cover, except the gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation; and
  - d. whether the mixer vent was open, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety.



Above daily inspections can be changed to weekly inspections for the emissions unit which was designed to be operated only with a closed cover, except adding materials. The permittee shall certify this type of mixer(s) in the semiannual reports.

(7) The FEPTIO for all BMC mixers (emissions units P003, P004, P005, P006, P007, and P008) combined, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit application. The Ohio EPA's "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN 3.0, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):



- i. Toxic Contaminant: Styrene
- ii. TLV (mg/m<sup>3</sup>): 85.202
- iii. Maximum Hourly Emission Rate (lbs/hr): 2.06
- iv. Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 1,330
- v. MAGLC (ug/m<sup>3</sup>): 2,029

The permittee has demonstrated that emissions of styrene, from emissions units P003, P004, P005, P006, P007, and P008 are calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic contaminant in accordance with ORC 3704.03(F).

- (8) Prior to making any physical changes to or changes in the method of operation of the emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the ORC 3704.03(F), the statute, has been documented. If the change(s) meet(s) the definition of a "modification" or if a new toxic is emitted, or the modeled toxic(s) is/are expected to exceed the previous permitted level(s), then the permittee shall apply for and obtain a final permit-to-install prior to the change. The director may consider any significant departure from the operations of the emissions unit, described in the permit-to-install application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and may require the permittee to submit a permit-to-install application for the increased emissions.



- (9) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute":
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground level concentration that demonstrated the emissions unit(s) to be in compliance with ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with ORC 3704.03(F) and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (10) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- e) Reporting Requirements
- (1) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit, or the exhaust stack have been made, then the report shall include a statement to this effect.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
    - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
      - i. an identification of each month during which the rolling, 12-month facility-wide VOC emissions exceeded 99.00 tons, and the actual rolling, 12-month facility-wide VOC emissions for each such month;



- ii. an identification of each month during which the rolling, 12-month facility-wide each individual HAP emissions exceeded 9.00 tons, and the actual rolling, 12-month facility-wide each such individual HAP emissions for each such month;
  - iii. an identification of each month during which the rolling, 12-month facility-wide total combined HAPs emissions exceeded 24.90 tons, and the actual rolling, 12-month facility-wide total combined HAPs emissions for each such month;
- b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (3) The permittee shall also submit annual reports that specify the total facility-wide emissions of VOC, each individual HAP, and total combined HAPs for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for each emissions unit in the annual Fee Emission Report.
- (4) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (5) In accordance with OAC rule 3745-21-25(Q)(5), the permittee must submit semiannual compliance reports:
  - a. if there are no deviations from the work practice standards in c)(1), provide a statement that there were no deviations from each of the those work practice standards during the reporting period (i.e., the use of mixer cover with no visible gaps present in the mixer covers, mixer's vents and covers are closed during actual mixing operation, except during addition of materials); and



- b. if there were deviations from the work practice standards in c)(1), provide the total operating time of the emissions unit during the reporting period and information on the number, duration, and cause of deviations (including unknown cause, if applicable), and the corrective action taken.

Each compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. These compliance reports shall be submitted to the Director (the Ohio EPA eBusiness Center, Air Services) by July 31 or January 31, respectively.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

Particulate emissions from all BMC mixers operated at the facility, combined, shall not exceed 1.0 pound per hour.

Applicable Compliance Method:

Compliance shall be determined in accordance with the following:

$$EP_{P003-P008} = (ME)(FR)(60 \text{ min/hr})/(7,000 \text{ grains/lb})$$

where:

Me = the maximum emission rate from the dust collector stack by the manufacturer's guarantee number, which is 0.03 grain/ft<sup>3</sup>; and

FR = the maximum flow rate of the dust collector = 3,900 ft<sup>3</sup>/min.

If required, the permittee shall demonstrate compliance by emission testing in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

- b. Emission Limitation:

Particulate emissions from all BMC mixers operated at the facility, combined, shall not exceed 4.38 tons per year.

Applicable Compliance Method:

Compliance shall be determined in accordance with the following:

$$EP_{P003-P008} = (ME)(FR)(60 \text{ min/hr})(8,760 \text{ hrs/yr})/(7,000 \text{ grains/lb})(2,000 \text{ lbs/ton})$$

where:



Me = the maximum emission rate from the dust collector stack by the manufacturer's guarantee number, which is 0.03 grain/ft<sup>3</sup>; and

FR = the maximum flow rate of the dust collector = 3,900 ft<sup>3</sup>/min.

c. Emission Limitation:

The visible particulate emissions from the dust collector stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated by visible emission evaluations performed in accordance with the procedures specified in OAC rule 3745-17-03(B)(1) using the test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

d. Emission Limitations:

Monthly VOC emissions from each emissions unit shall not exceed the following:

- i. for emissions units P003 or P006, 430.0 pounds per month;
- ii. for emissions unit P004, P007, or P008, 961.20 pounds per month; and
- iii. for emissions unit P005, 398.07 pounds per month.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(3)d.

e. Emission Limitations:

Annual VOC emissions from each emissions unit shall not exceed the following:

- i. for emissions units P003 or P006, 2.58 tons per year;
- ii. for emissions unit P004, P007, or P008, 5.77 tons per year; and
- iii. for emissions unit P005, 2.39 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(3)d and shall be the sum for the calendar year.

f. Emission Limitation:

OC emissions from cleanup materials for all BMC mixers at the facility shall not exceed 9.90 tons per year.



Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(4)d and shall be the sum of the calendar year.

g. Emission Limitation:

Facility-wide VOC emissions shall not exceed 99.00 tons per year, based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(5)b.

h. Emission Limitation:

Facility-wide individual HAP emissions shall not exceed 9.90 tons per year, based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(5)d.

i. Emission Limitation:

Facility-wide total combined HAP emissions shall not exceed 24.90 tons per year, based upon a rolling, 12-month summation of monthly emissions.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(5)f.

j. Emission Limitation:

Particulate emissions from each emissions unit shall not exceed 0.551 pound per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

g) Miscellaneous Requirements

- (1) None.