



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

2/21/2013

Certified Mail

Mr. Brian Gill  
ALCON INDUSTRIES, INC.  
7990 Baker Avenue  
Cleveland, OH 44102

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1318007755  
Permit Number: P0111676  
Permit Type: Administrative Modification  
County: Cuyahoga

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/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.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 Cleveland Division of Air Quality at (216)664-2297 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: CDAQ



**FINAL**

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

Facility ID:	1318007755
Permit Number:	P0111676
Permit Type:	Administrative Modification
Issued:	2/21/2013
Effective:	2/21/2013
Expiration:	9/17/2015





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

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**Final Permit-to-Install and Operate**  
ALCON INDUSTRIES, INC.  
**Permit Number:** P0111676  
**Facility ID:** 1318007755  
**Effective Date:** 2/21/2013

## Authorization

Facility ID: 1318007755  
Application Number(s): M0001910  
Permit Number: P0111676  
Permit Description: Administrative modification for emissions units P002 (core making) and P003 (core making). Facility requests to change the monitoring and recordkeeping for the baghouse as well as the emission factors used to determine particulate emissions per the meeting of 7/12/12. No change in limits requested.  
Permit Type: Administrative Modification  
Permit Fee: \$200.00  
Issue Date: 2/21/2013  
Effective Date: 2/21/2013  
Expiration Date: 9/17/2015  
Permit Evaluation Report (PER) Annual Date: Oct 1 - Sept 30, Due Nov 15

This document constitutes issuance to:

ALCON INDUSTRIES, INC.  
7990 BAKER AVE.  
CLEVELAND, OH 44102

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:

Cleveland Division of Air Quality  
2nd Floor  
75 Erieview Plaza  
Cleveland, OH 44114  
(216)664-2297

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

A handwritten signature in black ink, appearing to read "Scott J. Nally".

Scott J. Nally  
Director



**Final Permit-to-Install and Operate**  
ALCON INDUSTRIES, INC.  
**Permit Number:** P0111676  
**Facility ID:** 1318007755  
**Effective Date:** 2/21/2013

## Authorization (continued)

Permit Number: P0111676

Permit Description: Administrative modification for emissions units P002 (core making) and P003 (core making). Facility requests to change the monitoring and recordkeeping for the baghouse as well as the emission factors used to determine particulate emissions per the meeting of 7/12/12. No change in limits requested.

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

**Emissions Unit ID:**

Company Equipment ID:  
Superseded Permit Number:  
General Permit Category and Type:

**P002**

Gaylord SATB-30  
P0107363  
Not Applicable

**Emissions Unit ID:**

Company Equipment ID:  
Superseded Permit Number:  
General Permit Category and Type:

**P003**

Gaylord 30a  
P0107363  
Not Applicable



**Final Permit-to-Install and Operate**  
ALCON INDUSTRIES, INC.  
**Permit Number:** P0111676  
**Facility ID:** 1318007755  
**Effective Date:** 2/21/2013

## **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 Cleveland Division of Air Quality 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).



**Final Permit-to-Install and Operate**  
ALCON INDUSTRIES, INC.  
**Permit Number:** P0111676  
**Facility ID:** 1318007755  
**Effective Date:** 2/21/2013

**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**  
ALCON INDUSTRIES, INC.  
**Permit Number:** P0111676  
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**Effective Date:** 2/21/2013

## **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. The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR part 63 Subpart ZZZZZ, National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources. Although Ohio EPA has determined that this area source MACT (also known as the GACT) applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by U.S. EPA.



**Final Permit-to-Install and Operate**  
ALCON INDUSTRIES, INC.  
**Permit Number:** P0111676  
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## **C. Emissions Unit Terms and Conditions**



**1. P002, Gaylord SATB-30 (1994)**

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

One SATB-30 Gaylord core making process located in the static foundry

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. See d)(6), d)(7), d)(8) and e)(4).

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

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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 3745-31-05(A)(3)	16.95 lbs/day of particulate emissions from P002 and P003 combined.  740 lbs/day of organic compound (OC) emissions from P002 and P003 combined.  80.88 lbs/day of volatile organic compound (VOC) emissions from P002 and P003 combined.  Visible particulate emissions for the stack serving this emissions unit shall not exceed 10% opacity, as a 6-minute average.  See b)(2)a. below.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D) (Synthetic Minor to avoid Title V and NNSR for VOC)	0.43 TPY of particulate emissions from P002 and P003 combined. 47.5 TPY of OC emissions from P002 and P003 combined. 5.15 TPY of VOC/HAP emissions from P002 and P003 combined. See b)(2)b., b)(2)c., c)(1), c)(2), and c)(3) below.
c.	OAC rule 3745-17-07(A)	The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to the OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-11	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to the OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.
- b. The combined emissions from P002 and P003 shall not exceed 0.43 ton of particulate emissions per year, based upon a rolling, 12-month summation of the particulate emissions.
- c. The combined emissions from P002 and P003 shall not exceed 47.5 tons of OC emissions and 5.15 tons of VOC/HAP emissions per year, based upon a rolling, 12-month summation of the OC and VOC/HAP emissions.

c) Operational Restrictions

- (1) The maximum annual usage rate of resin for P002 and P003 combined shall not exceed 23,000 pounds, based on a rolling 12-month summation of the usage rates.
- (2) The maximum annual usage rate of hardener for P002 and P003 combined shall not exceed 100,000 pounds, based on a rolling 12-month summation of the usage rates.
- (3) The maximum annual usage rate of sand for P002 and P003 combined shall not exceed 24,000,000 pounds, based on a rolling 12-month summation of the usage rates.



- (4) The permittee shall operate the baghouse filtration system for the control of particulate emissions whenever this emissions unit is in operation and shall maintain the baghouse particulate filter in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
  - (5) In the event the baghouse 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 calculate and maintain monthly records of the particulate, OC and VOC emissions and the rolling 12-month emissions of particulate, OC and VOC/HAPs.
  - (2) The permittee shall collect and record the following information each day when operating this emissions unit:
    - a. the number of sand cores produced by this emissions unit;
    - b. the amount, in pounds, of sand used during each day;
    - c. the amount, in pounds, of resin used during each day;
    - d. the amount, in pounds, of hardener used during each day;
    - e. the number of hours of operation for each day;
    - f. the number of cycles performed each day;
    - g. the total particulate emission rate from all sand used in P002 and P003, in pounds per day;
    - h. the total OC emission rate from all resin and hardener used in P002 and P003, in pounds per day; and
    - i. the total VOC/HAPs emission rate from all resin and hardener used in P002 and P003, in pounds per day.
  - (3) The permittee shall collect and record the amount, in pounds, of sand, resin and hardener used on a monthly basis for the purpose of determining annual usage.
  - (4) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the baghouse 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 Cleveland Division of Air Quality (Cleveland DAQ) upon request.
  - (5) The permittee shall conduct monthly maintenance inspections of the baghouse particulate filter by qualified personnel 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. The maintenance inspections shall include removal and inspection of the filters for cleanliness and effectiveness, and clean and/or replace the filters with new filters as necessary.

- (6) The permittee shall document each monthly inspection of the baghouse 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 Cleveland DAQ upon request.

- (7) The permittee shall maintain records that document any time periods when the baghouse particulate filter was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the baghouse 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 Cleveland DAQ upon request.

- (8) The PTIO application for this/these emissions unit(s), P002, was evaluated based on the actual materials and the design parameters of the emissions unit(s)' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 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 SCREEN3, 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., 24 hours per day and 7 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):

Toxic Contaminant: 2-Phenoxy-Ethanol

TLV (mg/m<sup>3</sup>): 100

Maximum Hourly Emission Rate (lbs/hr): 1.14

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 351.23

MAGLC (ug/m<sup>3</sup>): 2381

Toxic Contaminant: Methanol

TLV (mg/m<sup>3</sup>): 262.09

Maximum Hourly Emission Rate (lbs/hr): 1.86

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 573.07

MAGLC (ug/m<sup>3</sup>): 6,240

The permittee, has demonstrated that emissions of 2-Phenoxy-Ethanol and Methanol from emissions unit(s) P002, is 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 air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(9) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), 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 rule 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 "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (10) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
  - 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 the "Toxic Air Contaminant Statute", 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 the "Toxic Air Contaminant Statute", 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 the "Toxic Air Contaminant Statute", 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.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:



- a. all exceedances of the rolling 12-month emission limitation for particulate emissions;
  - b. all exceedances of the rolling 12-month emission limitation for VOC;
  - c. all exceedances of the rolling 12-month emission limitation for OC;
  - d. all exceedances of the rolling 12-month usage limitation of sand;
  - e. all exceedances of the rolling 12-month usage limitation of resin; and
  - f. all exceedances of the rolling 12-month usage limitation of hardener.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director 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.
- (3) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this/these emissions unit(s):
- a. each month that a baghouse inspection was not performed in accordance with d)(5) and the corrective actions that were taken to inspect the baghouse;
  - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
  - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted; and
  - d. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- (4) 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(s), or the exhaust stack have been made, then the report shall include a statement to this effect.
- f) Testing Requirements
- (1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:



a. Emission Limitation:

16.56 lbs/day of particulate emissions

Applicable Compliance Method:

Compliance shall be determined by multiplying the emission factor specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 12.10, Table 12.10-7 (1/95) for particulate emissions for the sand handling operation (1.1 lbs/ton of sand handled) by the max process weight rate for the sand handled per day.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

b. Emission Limitation:

740 lbs/day of combined OC emissions from P002 and P003

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping from d)(1) and d)(2).

c. Emission Limitation:

80.88 lbs/day of combined VOC emissions from P002 and P003

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping as specified in d)(1) and d)(2).

d. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9.

e. Emission Limitation:

The combined annual particulate emissions for P002 and P003 shall not exceed 0.43 ton/year as a rolling, 12-month summation.



Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping from d)(1) - d)(3) and the following:

$$E = (1.1 \text{ lbs PE/ton sand used})(\text{tons sand used/month})(1 \text{ ton}/2,000 \text{ lbs})(1-.98 \text{ CE})$$

Where

$$E = \text{tons PE/month}$$

The permittee shall then sum the total monthly particulate emissions as a rolling, 12 month summation.

f. Emission Limitation:

The combined annual OC emissions for P002 and P003 shall not exceed 47.5 tons/year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping from d)(1) - d)(3) and the following:

$$E = (0.95 \text{ lbs OC/ton hardener used})(\text{tons hardener used/month})(1 \text{ ton}/2,000 \text{ lbs})$$

Where

$$E = \text{tons OC/month}$$

The permittee shall then sum the total monthly OC emissions as a rolling, 12 month summation.

g. Emission Limitation:

The combined annual VOC emissions for P002 and P003 shall not exceed 5.15 tons/year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping from d)(1) - d)(3) and the following:

$$E = [(23.0 \text{ lbs VOC/ton resin used})(\text{tons resin used/month}) + 0.05 \text{ lbs VOC/tons hardener})(\text{tons hardener used/month})](1 \text{ ton}/2,000 \text{ lbs})$$

Where

$$E = \text{tons VOC/month}$$

The permittee shall then sum the total monthly VOC emissions as a rolling, 12 month summation.



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- g) Miscellaneous Requirements
  - (1) P002 was installed in July 1994.



**2. P003, Gaylord SATB-30 (1999)**

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

One SATB-30 Gaylord core making process located in the static foundry

- 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. See d)(6), d)(7), d)(8) and e)(4).
  - (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. See b)(1)b., c)(1), c)(2), c)(3), d)(1), d)(2), d)(3), e)(1), f)(1)e., f)(1)f., and f)(1)g.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(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. 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 3745-31-05(A)(3)	16.95 lbs/day of particulate emissions from P002 and P003 combined.  740 lbs/day of organic compound (OC) emissions from P002 and P003 combined.  80.88 lbs/day of volatile organic compound (VOC) emissions from P002 and P003 combined.  Visible particulate emissions for the stack serving this emissions unit shall not exceed 10% opacity, as a 6-minute average.  See b)(2)a. below.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D) (Synthetic Minor to avoid Title V and NNSR for VOC)	0.43 TPY of particulate emissions from P002 and P003 combined. 47.5 TPY of OC emissions from P002 and P003 combined. 5.15 TPY of VOC/HAPs emissions from P002 and P003 combined. See b)(2)b., b)(2)c., c)(1), c)(2), and c)(3) below.
c.	OAC rule 3745-17-07(A)	The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to the OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-11	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to the OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.
- b. The combined emissions from P002 and P003 shall not exceed 0.43 ton of particulate emissions per year, based upon a rolling, 12-month summation of the particulate emissions.
- c. The combined emissions from P002 and P003 shall not exceed 47.5 tons of OC emissions and 5.15 tons of VOC/HAP emissions per year, based upon a rolling, 12-month summation of the OC and VOC/HAP emissions.

c) Operational Restrictions

- (1) The maximum annual usage rate of resin for P002 and P003 combined shall not exceed 23,000 pounds, based on a rolling 12-month summation of the usage rates.
- (2) The maximum annual usage rate of hardener for P002 and P003 combined shall not exceed 100,000 pounds, based on a rolling 12-month summation of the usage rates.
- (3) The maximum annual usage rate of sand for P002 and P003 combined shall not exceed 24,000,000 pounds based on a rolling 12-month summation of the usage rates.



- (4) The permittee shall operate the baghouse filtration system for the control of particulate emissions whenever this emissions unit is in operation and shall maintain the baghouse particulate filter in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
  - (5) In the event the baghouse 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 calculate and maintain monthly records of the particulate, OC and VOC emissions and the rolling 12-month emissions of particulate, OC and VOC/HAPs.
  - (2) The permittee shall collect and record the following information each day when operating this emissions unit:
    - a. the number of sand cores produced by this emissions unit;
    - b. the amount, in pounds, of sand used during each day;
    - c. the amount, in pounds, of resin used during each day;
    - d. the amount, in pounds, of hardener used during each day;
    - e. the number of hours of operation for each day;
    - f. the number of cycles performed each day;
    - g. the total particulate emission rate from all sand used in P002 and P003, in pounds per day;
    - h. the total OC emission rate from all resin and hardener used in P002 and P003, in pounds per day; and
    - i. the total VOC/HAPs emission rate from all resin and hardener used in P002 and P003, in pounds per day.
  - (3) The permittee shall collect and record the amount, in pounds, of sand, resin and hardener used on a monthly basis for the purpose of determining annual usage.
  - (4) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the baghouse 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 Cleveland Division of Air Quality (Cleveland DAQ) upon request.
  - (5) The permittee shall conduct monthly maintenance inspections of the baghouse particulate filter by qualified personnel 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. The maintenance inspections shall include removal and inspection of the filters for cleanliness and effectiveness, and clean and/or replace the filters with new filters as necessary.

- (6) The permittee shall document each monthly inspection of the baghouse 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 Cleveland DAQ upon request.

- (7) The permittee shall maintain records that document any time periods when the baghouse particulate filter was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the baghouse 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 Cleveland DAQ upon request.

- (8) The PTIO application for this/these emissions unit(s), P003, was evaluated based on the actual materials and the design parameters of the emissions unit(s)' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 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 SCREEN3, 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., 24 hours per day and 7 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):

Toxic Contaminant: 2-Phenoxy-Ethanol

TLV (mg/m<sup>3</sup>): 100

Maximum Hourly Emission Rate (lbs/hr): 1.14

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 351.23

MAGLC (ug/m<sup>3</sup>): 2381

Toxic Contaminant: Methanol

TLV (mg/m<sup>3</sup>): 262.09

Maximum Hourly Emission Rate (lbs/hr): 1.86

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 573.07

MAGLC (ug/m<sup>3</sup>): 6,240

The permittee, has demonstrated that emissions of 2-Phenoxy-Ethanol and Methanol from emissions unit(s) P003, is 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 air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(9) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), 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 rule 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 "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (10) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
  - 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 the "Toxic Air Contaminant Statute", 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 the "Toxic Air Contaminant Statute", 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 the "Toxic Air Contaminant Statute", 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.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:



- a. all exceedances of the rolling 12-month emission limitation for particulate emissions;
  - b. all exceedances of the rolling 12-month emission limitation for VOC;
  - c. all exceedances of the rolling 12-month emission limitation for OC;
  - d. all exceedances of the rolling 12-month usage limitation of sand;
  - e. all exceedances of the rolling 12-month usage limitation of resin; and
  - f. all exceedances of the rolling 12-month usage limitation of hardener.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the Director 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.
- (3) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this/these emissions unit(s):
- a. each month that a baghouse inspection was not performed in accordance with d)(5) and the corrective actions that were taken to inspect the baghouse;
  - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
  - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
  - d. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- (4) 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(s), or the exhaust stack have been made, then the report shall include a statement to this effect.
- f) Testing Requirements
- (1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:



a. Emission Limitation:

16.56 lbs/day of particulate emissions

Applicable Compliance Method:

Compliance shall be determined by multiplying the emission factor specified in U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 12.10, Table 12.10-7 (1/95) for particulate emissions for the sand handling operation (1.1 lbs/ton of sand handled) by the max process weight rate for the sand handled per day.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

b. Emission Limitation:

740 lbs/day of combined OC emissions from P002 and P003

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping from d)(1) and d)(2).

c. Emission Limitation:

80.88 lbs/day of combined VOC emissions from P002 and P003

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping as specified in d)(1) and d)(2).

d. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9.

e. Emission Limitation:

The combined annual particulate emissions for P002 and P003 shall not exceed 0.43 ton/year as a rolling, 12-month summation.



Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping from d)(1) - d)(3) and the following:

$$E = (1.1 \text{ lbs PE/ton sand used})(\text{tons sand used/month})(1 \text{ ton}/2,000 \text{ lbs})(1-.98 \text{ CE})$$

Where

$$E = \text{tons PE/month}$$

The permittee shall then sum the total monthly particulate emissions as a rolling, 12 month summation.

f. Emission Limitation:

The combined annual OC emissions for P002 and P003 shall not exceed 47.5 tons/year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping from d)(1) - d)(3) and the following:

$$E = (0.95 \text{ lbs OC/ton hardener used})(\text{tons hardener used/month})(1 \text{ ton}/2,000 \text{ lbs})$$

Where

$$E = \text{tons OC/month}$$

The permittee shall then sum the total monthly OC emissions as a rolling, 12 month summation.

g. Emission Limitation:

The combined annual VOC emissions for P002 and P003 shall not exceed 5.15 tons/year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping from d)(1) - d)(3) and the following:

$$E = [(23.0 \text{ lbs VOC/ton resin used})(\text{tons resin used/month}) + 0.05 \text{ lbs VOC/tons hardener})(\text{tons hardener used/month})](1 \text{ ton}/2,000 \text{ lbs})$$

Where

$$E = \text{tons VOC/month}$$

The permittee shall then sum the total monthly VOC emissions as a rolling, 12 month summation.



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- g) Miscellaneous Requirements
  - (1) P003 was installed in December 1999.