



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

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www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

5/7/2009

Certified Mail

Mr. Dennis Borda
A&B Foundry and Machining, LLC
835 N. Main St.
Franklin, OH 45005

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1483040399
Permit Number: P0104444
Permit Type: OAC Chapter 3745-31 Modification
County: Warren

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Western Star. A copy of the public notice and the draft permit are enclosed. This permit has been posted to the Division of Air Pollution Control Web page <http://www.epa.state.oh.us/dapc> in Microsoft Word and Adobe Acrobat format. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and Hamilton County Dept. of Environmental Services
250 William Howard Taft Pkwy.
Cincinnati, OH 45219-2660

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install and operate will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install and Operate is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Hamilton County Dept. of Environmental Services at (513)946-7777.

Sincerely,

Michael W. Ahern
Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
HCDOES; Indiana; Kentucky

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. A&B Foundry requested a Chapter 31 Modification to emissions unit F002 to account for wash materials and alcohol excluded from prior permits, to increase the allowable sand usage, and to incorporate Synthetic Minor requirements for volatile organic compound (VOC) emissions.
3. Facility Emissions and Attainment Status: Emissions from emissions unit F002, airset core and mold making, consist of VOC and HAPs from the application of phenolic urethane no-bake binders, core and mold release agents, washes, and isopropyl alcohol (IPA) and Particulate emissions (PE)/particulate matter ten microns and less in diameter (PM10) from mixing and core and mold making. A&B Foundry is currently designated a FEPTIO facility, based on Synthetic Minor requirements to avoid Title V for VOC emissions from emissions unit F003, vacuum mold making. Warren County has been designated non-attainment of the National Ambient Air Quality Standard for 8-hour ozone and PM2.5.
4. Source Emissions: FEPTIO P0104444 will constitute a Chapter 31 Modification for emissions unit F002. The uncontrolled, unrestricted potential to emit (PTE) VOC from emissions unit F002 is 163.37 TPY considering VOC from phenolic urethane no-bake binders, core and mold release agents, washes, and IPA and at the maximum sand usage rate. The previous uncontrolled, unrestricted PTE VOC from emissions unit F002 was 66.50 TPY. The previous BAT VOC emissions limitation was 4.65 TPY from PTI 14-04394. In combination with emissions unit F003's Federal restrictions emissions unit F002 did not require a Synthetic Minor itself at that time.

The facility has requested to restrict the sand usage, material usages, and material VOC contents for emissions unit F002 resulting in a Synthetic Minor PTE VOC of 28.17 TPY for emissions unit K003. Facility PE/PM10 and hazardous air pollutants (HAPs) emissions have not been, and will remain, unaffected as the uncontrolled, unrestricted PTE remains < 100 TPY PE/PM10 and < 10/25 TPY HAPs.

Conclusion: This FEPTIO includes Federal restrictions limiting the sand usage, material usages, and VOC emissions on rolling, 12-month basis, including the appropriate recordkeeping and reporting to qualify as a Synthetic Minor to avoid Title V requirements.

5. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	28.17
PE/PM10	7.10

PUBLIC NOTICE
Issuance of Draft Air Pollution Permit-To-Install and Operate
A&B Foundry and Machining, LLC

Issue Date: 5/7/2009
Permit Number: P0104444
Permit Type: OAC Chapter 3745-31 Modification
Permit Description: Chapter 31 Modification to increase allowable emissions and incorporate rolling, 12-month restrictions for F002.
Facility ID: 1483040399
Facility Location: A&B Foundry and Machining, LLC
835 NORTH MAIN ST,
Franklin, OH 45005
Facility Description: Aluminum Foundries (except Die-Casting)

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio has issued a draft action of an air pollution control, federally enforceable permit-to-install and operate (PTIO) for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Alberta Mellon at Hamilton County Dept. of Environmental Services, 250 William Howard Taft Pkwy. or (513)946-7777. The permit can be downloaded from the Web page: www.epa.state.oh.us/dapc



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

DRAFT

Air Pollution Permit-to-Install and Operate
for
A&B Foundry and Machining, LLC

Facility ID: 1483040399
Permit Number: P0104444
Permit Type: OAC Chapter 3745-31 Modification
Issued: 5/7/2009
Effective: To be entered upon final issuance
Expiration: To be entered upon final issuance



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Permit-to-Install and Operate
for
A&B Foundry and Machining, LLC

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State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104444

Facility ID: 1483040399

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 1483040399
Application Number(s): A0036839
Permit Number: P0104444
Permit Description: Chapter 31 Modification to increase allowable emissions and incorporate rolling, 12-month restrictions for F002.
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$2,000.00 *DO NOT send payment at this time - subject to change before final issuance*
Issue Date: 5/7/2009
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

A&B Foundry and Machining, LLC
835 NORTH MAIN ST
Franklin, OH 45005

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

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Hamilton County Dept. of Environmental Services
250 William Howard Taft Pkwy.
Cincinnati, OH 45219-2660
(513)946-7777

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

Chris Korleski
Director



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104444

Facility ID: 1483040399

Effective Date: To be entered upon final issuance

Authorization (continued)

Permit Number: P0104444

Permit Description: Chapter 31 Modification to increase allowable emissions and incorporate rolling, 12-month restrictions for F002.

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

Emissions Unit ID:	F002
Company Equipment ID:	Core/mold,sand/binder, mold release
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104444

Facility ID: 1483040399

Effective Date: To be entered upon final issuance

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. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. 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 Hamilton County Dept. of Environmental Services 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 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 emission 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.

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104444

Facility ID: 1483040399

Effective Date: To be entered upon final issuance

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104444

Facility ID: 1483040399

Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104444

Facility ID: 1483040399

Effective Date: To be entered upon final issuance

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104444

Facility ID: 1483040399

Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. F002, Core/mold,sand/binder, mold release

Operations, Property and/or Equipment Description:

Airset core and mold making, two (2) mixers and one (1) core making machine, using phenolic urethane no-bake binders at aluminum foundry in Non-Appendix A area.

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. g)(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)b., b)(2)d., b)(2)e., b)(2)f., d)(1), d)(2), d)(3), d)(4), d)(5), and e)(2).

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)	The volatile organic compounds (VOC) emissions from this emissions unit shall not exceed 37.3 pounds per hour from the use of phenolic urethane no-bake binders, core & mold release, washes, and isopropyl alcohol (IPA). The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
b.	OAC rule 3745-31-05(D) Synthetic minor for volatile organic compounds (VOC) to avoid Title V.	The VOC emissions from this emissions unit shall not exceed 28.17 tons per year (TPY), based on a rolling, 12-month summation, from the use of phenolic urethane no-bake binders, core & mold release, washes, and IPA. See b)(2)d., b)(2)e. and b)(2)f.
c.	OAC rule 3745-31-05(E)	See b)(2)c.
d.	OAC rule 3745-17-11(A)(1)(h)	Exempt from mass emission limitations in



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		OAC rule 3745-17-11.

(2) Additional Terms and Conditions

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the hourly VOC emission limitation, the VOC content restrictions, the rolling, 12-month material usage restrictions, and the rolling, 12-month VOC emission limitation.
- b. The hourly emission limitation outlined in b)(1) is based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with this limitation.
- c. Federally Enforceable Permit to Install and Operate (FEPTIO) P0104444 for this air contaminant source takes into account the following voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
 - i. The maximum amount of foundry sand used by this emissions unit shall not exceed 21,844 tons per year; and
 - ii. The particulate emissions (PE) and particulate matter emissions 10 microns and less in diameter (PM10) from this emissions unit shall not exceed 7.10 tons per year.
- d. The maximum annual foundry sand usage rate for this emissions unit shall not exceed 21,844 tons, based upon a rolling, 12-month summation of the foundry sand usage rates.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the foundry sand usage levels specified in the following table:

Month	Maximum Allowable Cumulative usage (tons)
1	1,820
1-2	3,641
1-3	5,461
1-4	7,281
1-5	9,102
1-6	10,922
1-7	12,742



1-8	14,563
1-9	16,383
1-10	18,203
1-11	20,024
1-12	21,844

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual usage rate limitation shall be based upon a rolling, 12-month summation of the usage rates.

- e. The maximum annual material usage for this emissions unit shall not exceed 750 pounds for core/mold release, 29,284 pounds for washes, and 2823 gallons of IPA, based upon rolling, 12-month summations of the material usage figures. To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the material usage levels specified in the following table:

Maximum Allowable Cumulative Coating Usages			
Month(s)	Release (pounds)	Washes (pounds)	IPA (gallons)
1	63	2,440	235
1-2	125	4,881	471
1-3	188	7,321	706
1-4	250	9,761	941
1-5	313	12,202	1,176
1-6	375	14,642	1,412
1-7	438	17,082	1,647
1-8	500	19,523	1,882
1-9	563	21,963	2,117
1-10	625	24,403	2,353
1-11	688	26,844	2,588
1-12	750	29,284	2,823

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual material usage limitations shall be based upon rolling, 12-month summations of the material usage figures.



- f. Release applied in this emissions unit shall not exceed 1.0 pound of VOC per lb of release as a monthly weighted average.
- g. Washes applied in this emissions unit shall not exceed 39% percent VOC by weight as a monthly weighted average.
- h. IPA applied in this emissions unit shall not exceed 6.59 pounds of VOC per gallon as a monthly weighted average.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:

- a. the foundry sand usage rate in tons for each month; and
- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the foundry sand usage rates.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative foundry sand usage rate for each calendar month.

- (2) The permittee shall maintain monthly records of the following information:

- a. the material usages in pounds or gallons for each month; and
- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summations of the material usage figures.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative material usages for each calendar month.

- (3) The permittee, having chosen to demonstrate compliance by means of a monthly weighted average VOC content for washes and releases, shall collect and record the following information each month:

- a. the name and identification number of each wash and release applied;
- b. the mass of VOC per weight of wash and release and the number of pounds of each wash and release applied; and
- c. the monthly weighted average VOC content of all washes and releases, as applied, calculated in accordance with the equation as follows:

$$(C_{VOC,2})_A = \frac{\sum_{i=1}^n C_{VOC,2i} L_{Ci}}{\sum_{i=1}^n L_{Ci}}$$



i=1

i=1

where:

$(C_{VOC,2})_A$ is the monthly weighted average VOC content of all washes and releases;

$C_{VOC,2}$ is the VOC content, in percent VOC by weight, of a wash and release;

A = subscript denoting that the indicated VOC content is a weighted average of the washes and releases employed during time period A_t .

L_C = liquid weight of wash release employed during time period A_t , in pounds of wash and release.

i = subscript denoting a specific wash and release employed during time period A_t .

n = total number of washes and releases employed during time period A_t .

t = time period specified for the weighted average VOC content is per month and not included in the calculation.

(4) The permittee shall collect and record the mass of VOC per volume (pounds/gallon) of IPA each month.

(5) The permittee shall maintain monthly records of the following information:

a. the VOC emissions rate (tons) for each month of operations as a summation of the emissions from the use of phenolic urethane no-bake binders, core & mold release, washes, and isopropyl alcohol (IPA) as calculated below:

i. the actual quantity of foundry sand used, using phenolic urethane no-bake binders as recorded in d)(1)a., tons/month, multiplied by 1.17 pounds VOC/ton* of sand used multiplied by 1 Ton/2000 pounds;

* the Ohio EPA and Ohio Cast Metals Association (OCMA) Memorandum of Understanding binder system emission factor (EF) for phenolic urethane no-bake resins, published 2/16/1998

ii. the actual quantity of releases used as recorded in d)(2)a., pounds/month, multiplied by the actual release VOC content in % by weight, pound VOC/pound release, multiplied by 1 Ton/2000 pounds;

iii. the actual quantity of washes used as recorded in d)(2)a., pounds/month, multiplied by the actual weighted average VOC content in % by weight, pound VOC/pound washes, as recorded in d)(3)c multiplied by 1 Ton/2000 pounds; and

iv. the actual quantity of IPA used as recorded in d)(2)a., gallons/month, multiplied by the actual IPA VOC content, pounds VOC/gallon, multiplied by 1 Ton/2000 pounds



- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the VOC emissions from the use of phenolic urethane no-bake binders, core & mold release, washes, and isopropyl alcohol (IPA).
- (6) The permittee shall maintain monthly records of the foundry sand usage rate per d)(1)a., and after the first full calendar year of operation and every calendar year thereafter, records of the PE/PM10 emissions rate (tons) for each year of operation from mixing and core & mold making as calculated below:

the actual quantity of foundry sand used as recorded in d)(1)b., tons/calendar year, multiplied by 0.65 pound PE/PM10/ton* of sand used multiplied by 1 Ton/2000 pounds

*the total RACM Table 2.7-1 EF for PE/PM10 from mixing and core & mold making

e) Reporting Requirements

- (1) 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.
- (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. all exceedances of the rolling, 12-month foundry sand usage rate limitation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative foundry sand usage rate levels;
 - ii. all exceedances of the rolling, 12-month limitations on material usage; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative material usage levels;
 - iii. all exceedances of the rolling, 12-month VOC emission limitation of 28.17 tons per year (TPY); and
 - iv. all exceedances of the VOC content restrictions for washes and releases (weighted average) and IPA.
 - 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).

f) Testing Requirements

(1) Compliance with the emission limitations and voluntary restrictions in b) of these terms and conditions shall be determined in accordance with the following method(s) identified below:

a. Emission Limitation:

The VOC emissions from this emissions unit shall not exceed 37.3 pounds per hour from the use of phenolic urethane no-bake binders, core & mold release, washes, and isopropyl alcohol (IPA).

Applicable Compliance Method

If required, compliance shall be demonstrated by conducting Method 25 emission testing pursuant to 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

b. Emissions Limitation:

The VOC emissions from this emissions unit shall not exceed 28.17 tons per year (TPY), based on a rolling, 12-month summation, from the use of phenolic urethane no-bake binders, core & mold release, washes, and IPA.

Applicable Compliance Method:

Compliance with the rolling, 12-month VOC emission limitation shall be demonstrated by the recordkeeping requirement outlined in d)(5).

The rolling, 12-month VOC emission limitation was established using information provided by the permittee in PTIO application A0036839 for FEPTIO P0104444 in the following equations:

21,844 tons sand/yr x 1.17 lb VOC/tons sand x 1 Ton/2000 lbs =	12.78 TPY VOC
750 lbs release/yr x 1.0 lb VOC/lb release x 1 Ton/2000 lbs =	0.38 TPY VOC
29,284 lbs wash/yr x 0.39 lb VOC/lb wash x 1 Ton/2000 lbs =	5.71 TPY VOC
2823 gallons IPA/yr x 6.59 lbs VOC/gal IPA x 1 Ton/2000 lbs =	<u>9.30 TPY VOC</u>
Total	28.17 TPY VOC

c. Voluntary Restriction

The PE and PM10 emissions shall not exceed 7.10 tons per year.



Applicable Compliance Method

Compliance with the PE/PM10 voluntary restriction shall be demonstrated by the recordkeeping requirement outlined in d)(6).

The PE/PM10 voluntary restriction was established using information provided by the permittee in PTIO application A0036839 for FEPTIO P0104444 in the following equation:

$$21,844 \text{ tons sand/yr} \times 0.65 \text{ lb PE/PM10/ton sand} \times 1 \text{ Ton}/2000 \text{ lbs} = 7.10 \text{ TPY PE/PM10}$$

- (2) Compliance with the foundry sand usage limitation in b)(2)d. shall be demonstrated by the record keeping required in d)(1).
- (3) Compliance with the material usage limitations in b)(2)e. shall be demonstrated by the record keeping required in d)(2).
- (4) Compliance with the VOC content limitation in b)(2)f. thru h. shall be demonstrated by the record keeping required in d)(3) and d)(4).

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the AToxic Air Contaminant Statute^e, 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 materials, or use of new materials, that 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.