☒ **Synthetic Minor Determination and/or** ☐ **Netting Determination**

Permit To Install **02-19358**

A. Source Description

The Quality Castings Company, located at 1200 North Main Street, Orrville Ohio, operates a foundry to produce gray iron. This process (P033) produces sand cores to be used to create voids in large castings. Once the iron solidifies around the cores, the cores can be broken up and shaken out of the casting. The facility has historically mixed sand with a binder and introduced methyl formate as a catalyst gas to solidify the mixture. The facility now also wants to be able to use a binder system with n,n-dimethyl isoproylamine (DMIPA) as a catalyst gas. Either of the 2 systems could be used at any time, but not both at the same time. When using DMIPA, an acid scrubber will be used.

B. Facility Emissions and Attainment Status

Although actual emissions will not increase as a result of the modification, the facility wants to federally restrict the production rate to 4,000 tons of sand per year. This may play into a bigger picture of restricting facility-wide emissions at a later date to avoid MACT applicability. Wayne County is attainment for ozone and PM-10 and will remain so even after the re-designation.

C. Source Emissions

With the proposed restriction of 4,000 tons of sand per year, VOC emissions will be restricted to 24.42 TPY, HAP emissions (methanol) will be restricted to 5.60 TPY and PM-10 emissions will be restricted to 0.72 TPY.

D. Conclusion

The facility hopes that some day it will be able to use the DMIPA process for all castings produced and is currently working with suppliers to make that a reality. The use of the DMIPA system over the methyl formate system significantly reduces emissions.

State of Ohio Environmental Protection Agency

RE: DRAFT PERMIT TO INSTALL **CERTIFIED MAIL**
WAYNE COUNTY

Street Address: Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329 Mailing Address: Lazarus Gov. Center

Application No: 02-19358

DATE: 5/25/2004

The Quality Castings Company
Steve Steiner
P.O. Box 58 1200 N. Main St.
Orrville, OH 44667

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on 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 public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed of final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **$500** will be due. Please do not submit any payment now.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA **NEDO**

WAYNE COUNTY

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL **02-19358** FOR AN AIR CONTAMINANT SOURCE FOR
THE QUALITY CASTINGS COMPANY

On 5/25/2004 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **The Quality Castings Company**, located at **1200 North Main Street, Orrville**, Ohio.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 02-19358:

Chapter 31 modification to Permit to Install 02-1952 to implement a dual binder system on P033.

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Dennis Bush, Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087
[(330)425-9171]

DRAFT PERMIT TO INSTALL 02-19358

Application Number:	02-19358
APS Premise Number:	0285010001
Permit Fee:	**To be entered upon final issuance**
Name of Facility:	The Quality Castings Company
Person to Contact:	Steve Steiner
Address:	P.O. Box 58 1200 N. Main St. Orrville, OH 44667

Location of proposed air contaminant source(s) [emissions unit(s)]:
1200 North Main Street
Orrville, Ohio

Description of proposed emissions unit(s):
Chapter 31 modification to Permit to Install 02-1952 to implement a dual binder system on P033.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable <u>emission limitations</u>, <u>operational restrictions</u>, <u>and control device operating parameter limitations</u>, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.
Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit

shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete

Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may

be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

7. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are

required for any emissions unit for which a Permit To Install is required.

8. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
PM_{10}	0.72
VOC	24.42
HAPs	5.60

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements
	OAC rule 3745-17-11(B)(1)
P033 - East Laempe L-20 core making process using binder system with methyl formate catalyst and modified to also use binder system with n,n-dimethyl isoproylamine (DMIPA) catalyst	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-17-08(B)
The terms and conditions of this PTI supercede the terms and conditions of PTI 02-1952 for P033, issued on 05/28/98.	OAC rule 3745-17-07(B)
	OAC rule 3745-21-07(G)(2)
	OAC rule 3745-31-05(C)

Applicable Emissions Limitations/Control Measures	
Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.02 TPY.	0.72 TPY of particulate matter less than 10 microns in diameter (PM_{10}) per rolling, 12-month period
Fugitive PE from this emissions unit shall not exceed 0.70 TPY.	The emission limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 9.77 lbs/hr when applying the methyl formate catalyst system, 1.72 lbs/hr when applying the DMIPA catalyst system, and 24.42 TPY.	The visible emission limitation specified in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average.	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a three-minute average.	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
24.42 tons of VOC per rolling, 12-month period	See A.2.a. below.
5.60 tons of hazardous air pollutants (HAPs) per rolling, 12-month period	

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the limitations in OAC rule 3745-21-07(G)(2) in the application of the non-photochemically reactive methyl formate catalyst and DMIPA catalyst systems; and no photochemically reactive materials shall be employed in this emissions unit.

2.b When applying the DMIPA catalyst system, the permittee shall not operate this emissions unit without the acid scrubber control.

II. Operational Restrictions

1. The pH of the scrubbing liquor shall be maintained between 0.0 and 4.5.

2. Annual production from this emissions unit, shall be based on the amount of sand processed, which shall not exceed 4,000 tons per rolling 12 months. This production restriction shall be based on a rolling, 12-month summation of the monthly sand usage rates.

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

MONTH(s)	MAXIMUM ALLOWABLE CUMULATIVE SAND PRODUCTION (TONS) Total
1	334
1-2	668
1-3	1,002
1-4	1,336
1-5	1,670
1-6	2,004
1-7	2,338
1-8	2,672
1-9	3,006
1-10	3,340
1-11	3,674
1-12	4,000

After the first 12 calendar months of operation under the provisions of this permit, compliance with the sand usage restriction shall be based upon a rolling, 12-month summation of the monthly rates.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor while the emissions unit is in operation and the DMIPA catalyst system is being used. The pH monitor shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

   The permittee shall collect and record the following information each day that the DMIPA catalyst system is used:

   a. the pH of the scrubber liquor; and

   b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

3. The permittee shall maintain monthly records of the following information:

a. the total production rate, in terms of sand processed, in tons per month;

b. beginning after the first 12 calendar months of operation under the provisions of this permit, the rolling, 12-month summations of the core sand processed; and

c. during the first 12 calendar months of operation under the provisions of this permit, the cumulative total core sand processed, for each successive (rolling) calendar month.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubber serving this emissions unit, the bin vent serving this emissions unit, and for any visible fugitive particulate emissions from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

2. The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirement specified in Section II.1.

3. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month production (core sand) restriction and for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative sand usage levels (Section II.2).

4. The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - the General Term and Condition of this permit.

V. Testing Requirements

Compliance with the emission limitations specified in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
PE from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.02 TPY.

Applicable Compliance Method:
Compliance with the hourly and annual PE limitations shall be determined using an emission factor of 0.72 lbs/ton of sand processed from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01. The sand transfer process is controlled by a fabric filter system with a 99% control efficiency of captured PE.

1.b Emission Limitation:
Fugitive PE from this emissions unit shall not exceed 0.70 TPY.

Applicable Compliance Method:
Compliance with the annual fugitive PE limitation shall be determined using an emission factor of 0.35 lbs/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980.

1.c Emission Limitation:
VOC emissions from this emissions unit shall not exceed 9.77 lbs/hr when applying the methyl formate catalyst system and 1.72 lbs/hr when applying the DMIPA catalyst system

Applicable Compliance Method:
These limits are based on the maximum potential sand usage in any hour and the VOC content of each of the binder systems applied, using the formulation data submitted for each material as provided by the manufacturer. If required and in accordance with OAC rule 3745-21-04(B)(5), U.S. EPA Method 24 or 24A shall be used to determine the VOC contents of the materials applied, and/or Method 25, 25A, or 25B shall be used to test emissions from the stack. Any alternative analytical procedure approved by the Administrator of the U.S. EPA may be used to replace these methods, if testing were to ever be required by the Ohio EPA Northeast District Office.

1.d VOC emissions from this emissions unit shall not exceed 24.42 TPY

Applicable Compliance Method:
The annual VOC emission limitation is based upon the restriction of 4000 tons of sand per rolling 12 months and highest VOC content of the two binder systems. Compliance with the production restriction of 4,000 tons of sand per year is demonstrated through the record keeping requirements established in Section A.III.3 of this permit.

1.e Emission Limitation:
Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method:
If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.

1.f Emission Limitation:
Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a three-minute average.

Applicable Compliance Method:
If required, compliance with the above visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emission

observations recorded at fifteen-second intervals.

1.g Emission Limitations:
24.42 tons of VOC per rolling, 12-month period; 5.60 tons of HAPs per rolling, 12-month period; and 0.72 TPY of PM_{10} per rolling, 12-month period

Applicable Compliance Method:
The rolling 12-month emission limitations were established using the restricted maximum annual usage rate of 4,000 tons of sand per rolling 12 months and the following emission factors:

12.21 lbs of VOC/ton of sand (supplied by manufacturer's of catalyst, core release and binder)

2.8 lbs of HAPs (methanol)/ton of sand (supplied by manufacturer of catalyst)

0.35 lb/ton of PM_{10}, from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980 (core making)

0.72 lb/ton of PE and 0.46 lb/ton of PM_{10}, from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01; and sand transfer is controlled by a fabric filter system with a 99% control efficiency of captured PE. All PE is assumed to be PM_{10} in order to demonstrate compliance with the worst-case scenario.

Compliance with the rolling 12-month core sand usage restriction is demonstrated through the monthly record keeping requirements in Section A.III.3 of this permit; which shall also demonstrate compliance with the rolling 12-month emission limitations using these emission factors.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P033 - East Laempe L-20 core making process using binder system with methyl formate catalyst and modified to also use binder system with DMIPA catalyst	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit (P033) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

   Pollutant: Methyl Formate

TLV (ug/m3): 270,579

Maximum Hourly Emission Rate (lbs/hr): 6.72

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 707

MAGLC (ug/m3): 6,442

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

   c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, and the change results only in an increase of greater than de minimis levels (defined in OAC 3745-15-05) of any air contaminant not previously emitted, the Ohio EPA will not require the existing permit to install to be modified. However, if the change(s) is (are) defined as a modification under other provisions of the modification definition in OAC 3745-31-01(other than above), then the permittee shall obtain a final permit to install prior to the change.

   The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

   a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

   b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None