



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

12/31/2012

Steve Steiner
The Quality Castings Company
1200 North Main Street
Orville, OH 44667-0058

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0285010001
Permit Number: P0110563
Permit Type: OAC Chapter 3745-31 Modification
County: Wayne

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. 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 PTI 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

How to give us feedback on your permitting experience

Please complete a survey at 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 by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

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

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
Ohio EPA-NEDO; Canada



FINAL

Division of Air Pollution Control
Permit-to-Install
for
The Quality Castings Company

Facility ID:	0285010001
Permit Number:	P0110563
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	12/31/2012
Effective:	12/31/2012



Division of Air Pollution Control
Permit-to-Install
for
The Quality Castings Company

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. Federally Enforceable Standard Terms and Conditions	4
2. Severability Clause	4
3. General Requirements	4
4. Monitoring and Related Record Keeping and Reporting Requirements.....	5
5. Scheduled Maintenance/Malfunction Reporting	6
6. Compliance Requirements	6
7. Best Available Technology	7
8. Air Pollution Nuisance	7
9. Reporting Requirements	7
10. Applicability	8
11. Construction of New Sources(s) and Authorization to Install	8
12. Permit-To-Operate Application	9
13. Construction Compliance Certification	9
14. Public Disclosure	9
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations	10
16. Fees.....	10
17. Permit Transfers	10
18. Risk Management Plans	10
19. Title IV Provisions	10
B. Facility-Wide Terms and Conditions.....	11
C. Emissions Unit Terms and Conditions	13
1. P030, Laempe LL-5	14
2. P031, South Laempe L-20	19
3. P032, Laempe L-40	24
4. P033, East Laempe L-20	29
5. P034, West Laempe L-20	35



Final Permit-to-Install
The Quality Castings Company
Permit Number: P0110563
Facility ID: 0285010001
Effective Date: 12/31/2012

Authorization

Facility ID: 0285010001
Facility Description: Gray Iron Foundry
Application Number(s): A0045162
Permit Number: P0110563
Permit Description: Chapter 31 modification permit establishing annual operating throughput restrictions for the currently-installed Laempe core making operations.
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$0.00
Issue Date: 12/31/2012
Effective Date: 12/31/2012

This document constitutes issuance to:

The Quality Castings Company
1200 North Main Street
Orrville, OH 44667-0058

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

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

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

The above named entity is hereby granted a Permit-to-Install for the 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 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

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

Scott J. Nally
Director



Authorization (continued)

Permit Number: P0110563

Permit Description: Chapter 31 modification permit establishing annual operating throughput restrictions for the currently-installed Laempe core making operations.

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

Emissions Unit ID:	P030
Company Equipment ID:	Laempe LL-5
Superseded Permit Number:	02-19387
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P031
Company Equipment ID:	South Laempe L-20
Superseded Permit Number:	02-20073
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P032
Company Equipment ID:	Laempe L-40
Superseded Permit Number:	02-21983
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P033
Company Equipment ID:	East Laempe L-20
Superseded Permit Number:	02-20394
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P034
Company Equipment ID:	West Laempe L-20
Superseded Permit Number:	02-21983
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
The Quality Castings Company
Permit Number: P0110563
Facility ID: 0285010001
Effective Date: 12/31/2012

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) 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.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. 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 re-issuance, or modification.



- 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, 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 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.

4. Monitoring and Related Record Keeping 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:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) 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:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, 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 Ohio EPA DAPC, Northeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Northeast District Office every six months, 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.
 - (4) This permit is for an emissions unit located at a Title V facility. 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.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. 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 Ohio EPA DAPC, Northeast District Office 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).

6. Compliance Requirements

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



- c) 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:
 - (1) 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.
 - (2) 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.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) 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.
- d) The permittee shall submit progress reports to the Ohio EPA DAPC, Northeast District Office 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:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) 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.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. 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.

9. 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 Ohio EPA DAPC, Northeast District Office.
- 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 Ohio EPA DAPC, Northeast District Office. 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 (i.e., postmarked) quarterly, 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.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. 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.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" 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).



- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

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).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. 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.



15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. 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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in Air Services once the transfer is legally completed. The change must be submitted through Air Services within thirty days of the ownership transfer date.

18. 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.

19. 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.



Final Permit-to-Install
The Quality Castings Company
Permit Number: P0110563
Facility ID: 0285010001
Effective Date: 12/31/2012

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
The Quality Castings Company
Permit Number: P0110563
Facility ID: 0285010001
Effective Date: 12/31/2012

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.



Final Permit-to-Install
The Quality Castings Company
Permit Number: P0110563
Facility ID: 0285010001
Effective Date: 12/31/2012

C. Emissions Unit Terms and Conditions



1. P030, Laempe LL-5

Operations, Property and/or Equipment Description:

Laempe LL-5 core making process modified to also use a binder system with n,n-dimethyl isoproylamine (DMIPA) catalyst

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-19387)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.004 lb/hr and 0.004 tpy. Fugitive PE from this emissions unit shall not exceed 0.18 tpy. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.41 lb/hr and 0.41 tpy. Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average. Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.
b.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-08(B)	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.
e.	OAC rule 3745-17-07(B)	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.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The pH of the scrubbing liquor shall be maintained between 2.0 and 4.5.

(2) In order to avoid exceeding the above annual emission limitations, annual production from this emissions unit, in terms of sand processed, shall not exceed 1,000 tpy, as a rolling, 12-month summation.

d) Monitoring and/or Recordkeeping 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. 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:

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, and
 - b. The rolling 12-month summations of the monthly total production rate, in terms of sand processed.
- e) Reporting Requirements
- (1) 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 above.
 - (2) 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 six-month period.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

PE from all stacks associated with this emissions unit shall not exceed 0.004 lb/hr and 0.004 tpy.

Applicable Compliance Method:

Compliance with the hourly PE limitation shall be demonstrated by multiplying an emission factor of 0.72 lb/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 by the maximum hourly production rate of 0.50 ton/hr and a control efficiency of 99 percent.

Compliance with the annual emission limitation shall be demonstrated by multiplying an emission factor of 0.72 lb/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 by the maximum annual sand processed (1000 tpy) and by a control efficiency of 99%, and then dividing by 2000 lbs/ton.



b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 0.18 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be demonstrated by multiplying an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980 by the maximum annual sand processed (1000 tpy), and then dividing by 2000 lbs/ton.

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 0.41 lb/hr and 0.41 tpy.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emissions limitation is based on the production restriction of 1,000 tons of sand per year. Therefore, as long as compliance with the production restriction is maintained, compliance with the annual emissions limitation is assumed. Compliance with the production restriction is based upon the record keeping requirements specified in d)(3).

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the visible emissions of fugitive dust limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9, 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.



Final Permit-to-Install
The Quality Castings Company
Permit Number: P0110563
Facility ID: 0285010001
Effective Date: 12/31/2012

g) Miscellaneous Requirements

(1) None.



2. P031, South Laempe L-20

Operations, Property and/or Equipment Description:

South Laempe L-20 core making process using a binder system with n,n-dimethyl isopropylamine (DMIPA) catalyst DMIPA is controlled by an acid scrubber.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-20073)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.01 tpy. Fugitive particulate emission (PE) from this emissions unit shall not exceed 0.53 tpy. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.84 lb/hr and 1.58 tpy. Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average. Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.
b.	OAC rule 3745-17-08(B)	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.
c.	OAC rule 3745-17-07(B)	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.



- (2) Additional Terms and Conditions
 - a. None.
- c) Operational Restrictions
 - (1) The pH of the scrubbing liquor shall be maintained between 2.0 and 4.5.
 - (2) In order to avoid exceeding the above annual emission limitations, annual production from this emissions unit, in terms of sand processed, shall not exceed 3,000 tpy, as a rolling, 12-month summation.
- d) Monitoring and/or Recordkeeping 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 this emissions unit operates:

 - 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 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; and
 - b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.
- e) Reporting Requirements
 - (1) 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 above.
 - (2) 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 six-month period.
 - (3) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production restriction.
- f) Testing Requirements
 - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

PE from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.01 tpy.

Applicable Compliance Method:

Compliance with the hourly PE limitation shall be demonstrated by multiplying an emission factor of 0.72 lb/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 by the maximum hourly production rate of 0.80 ton/hr and a control efficiency of 99 percent.

Compliance with the annual emission limitation shall be demonstrated by multiplying an emission factor of 0.72 lb/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 by the maximum annual sand processed (3000 tpy) and by a control efficiency of 99%, and then dividing by 2000 lbs/ton.



b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 0.53 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be demonstrated by multiplying an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980 by the maximum annual sand processed (3000 tpy), and then dividing by 2000 lbs/ton.

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 0.84 lb/hr and 1.58 tpy.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 3,000 tons of sand per year. Therefore, as long as compliance with the operational and production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the record keeping requirements specified in d)(3).

d. Emission Limitation:

Visible particulate emissions from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the visible emissions of fugitive dust limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9, 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.



Final Permit-to-Install
The Quality Castings Company
Permit Number: P0110563
Facility ID: 0285010001
Effective Date: 12/31/2012

g) Miscellaneous Requirements

(1) None.



3. P032, Laempe L-40

Operations, Property and/or Equipment Description:

Laempe L-40 core making process

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-21983)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.02 tpy. Fugitive PE from this emissions unit shall not exceed 1.05 tpy. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.58 lbs/hr and 3.15 tpy. Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average. Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.
b.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-08(B)	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.
e.	OAC rule 3745-17-07(B)	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.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The pH of the scrubbing liquor shall be maintained between 2.0 and 4.5.

(2) In order to avoid exceeding the above annual emission limitations, annual production from this emissions unit, in terms of sand processed, shall not exceed 6,000 tpy, as a rolling, 12-month summation.

d) Monitoring and/or Recordkeeping 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.

(2) The permittee shall collect and record the following information each day that this emissions unit operates:

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.

(3) 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.
 - (4) The permittee shall maintain monthly records of the following information:
 - a. the total production rate, in terms of sand processed, in tons per month; and
 - b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.
- e) Reporting Requirements
 - (1) 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 above.
 - (2) 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 six-month period.
 - (3) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production restriction.
- f) Testing Requirements
 - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

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 PE limitation shall be demonstrated by multiplying an emission factor of 0.72 lb/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 by the maximum hourly production rate of 1.50 tons/hr and a control efficiency of 99 percent.



Compliance with the annual emission limitation shall be demonstrated by multiplying an emission factor of 0.72 lb/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 by the maximum annual sand processed (6000 tpy) and by a control efficiency of 99%, and then dividing by 2000 lbs/ton.

b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 1.05 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be demonstrated by multiplying an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980 by the maximum annual sand processed (6000 tpy), and then dividing by 2000 lbs/ton.

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 1.58 lbs/hr and 3.15 tpy.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 6,000 tons of sand per year. Therefore, as long as compliance with the production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the record keeping requirements specified in d)(3).

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.



Applicable Compliance Method:

If required, compliance with the visible emissions of fugitive dust limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9, 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.

g) Miscellaneous Requirements

- (1) None.



4. P033, East Laempe L-20

Operations, Property and/or Equipment Description:

East Laempe L-20 core making process

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) g)(1)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-20394)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.01 tpy. Fugitive PE from this emissions unit shall not exceed 0.53 tpy. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 22.51 lbs/hr and 16.68 tpy. Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average. Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.
b.	OAC rule 3745-31-05(D) (PTI 02-20394)	VOC emissions shall not exceed 16.68 tons per rolling, 12-month period. Hazardous air pollutants (HAP) emissions shall not exceed 4.20 tons per rolling, 12-month period. Emissions of particulate matter less than 10 microns in diameter (PM-10) shall not exceed 0.54 tpy per rolling, 12-month period.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-08(B)	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.
f.	OAC rule 3745-17-07(B)	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.

(1) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The pH of the scrubbing liquor shall be maintained between 2.0 and 4.5.

(2) Annual production from this emissions unit, in terms of sand processed, shall not exceed 3,000 tpy, based on a rolling, 12-month summation of the monthly production rates.

d) Monitoring and/or Recordkeeping 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; and
 - b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.
- e) Reporting Requirements
- (1) 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 above.
 - (2) 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 six-month period.
 - (3) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production restriction.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:



a. Emission Limitation:

PE from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.01 tpy.

Applicable Compliance Method:

Compliance with the hourly PE limitation shall be demonstrated by multiplying an emission factor of 0.72 lb/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 by the maximum hourly production rate of 2.00 tons/hr and a control efficiency of 99 percent.

Compliance with the annual emission limitation shall be demonstrated by multiplying an emission factor of 0.72 lb/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 by the maximum annual sand processed (3000 tpy) and by a control efficiency of 99%, and then dividing by 2000 lbs/ton.

b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 0.53 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be demonstrated by multiplying an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980 by the maximum annual sand processed (3000 tpy), and then dividing by 2000 lbs/ton.

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 22.51 lbs/hr and 16.88 tpy.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 3,000 tons of sand per year. Therefore, as long as compliance with the production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the record keeping requirements specified in d)(3).

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.



Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the visible emissions of fugitive dust limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9, 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.

f. Emission Limitations:

VOC emissions shall not exceed 16.88 tons per rolling, 12-month period.

HAP emissions shall not exceed 4.20 tons per rolling, 12-month period.

PM₁₀ emissions shall not exceed 0.54 tpy per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitations was demonstrated by multiplying the maximum annual production rate of 3,000 tons by each of the following emission factors, and then dividing by 2000 lbs/ton:

8.45 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 PM₁₀, from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980 (core making); and

0.72 lb/ton of PM₁₀, from Table 11.12-2 of the document entitled AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, dated 10/01. (sand transfer used in conjunction with a 99% control efficiency for fabric filter.

Therefore, provided compliance is shown with this annual production restriction, compliance with the emission limitations will be assumed. Compliance with the annual production restriction shall be demonstrated by the monitoring and record keeping requirements specified in d)(3).



g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was performed and the predicted 1-hour maximum ground-level concentration was less than 80 percent of the MAGLC. Therefore, the air toxic demonstration is not part of this final permit. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install 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 air toxic to increase may require the permittee to apply for and obtain a new permit to install.



5. P034, West Laempe L-20

Operations, Property and/or Equipment Description:

West Laempe L-20 core making process

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) g)(1)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-21983)	Particulate emissions (PE) from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.01 tpy. Fugitive PE from this emissions unit shall not exceed 0.53 tpy. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.84 lb/hr and 1.58 tpy. Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average. Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.
b.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-08(B)	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.
e.	OAC rule 3745-17-07(B)	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.

(1) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The pH of the scrubbing liquor shall be maintained between 2.0 and 4.5.

(2) In order to avoid exceeding the above annual emission limitations, annual production from this emissions unit, in terms of sand processed, shall not exceed 3,000 tpy, as a rolling, 12-month summation.

d) Monitoring and/or Recordkeeping 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. 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:

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; and
 - b. the rolling, 12-month summations of the monthly total production rate, in terms of sand processed.
- e) Reporting Requirements
- (1) 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 above.
 - (2) 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 six-month period.
 - (3) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production restriction.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

PE from all stacks associated with this emissions unit shall not exceed 0.01 lb/hr and 0.01 tpy.

Applicable Compliance Method:

Compliance with the hourly PE limitation shall be demonstrated by multiplying an emission factor of 0.72 lb/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 by the maximum hourly production rate of 0.80 ton/hr and a control efficiency of 99 percent.

Compliance with the annual emission limitation shall be demonstrated by multiplying an emission factor of 0.72 lb/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 by the maximum annual sand processed (3000 tpy) and by a control efficiency of 99%, and then dividing by 2000 lbs/ton.

b. Emission Limitation:

Fugitive PE from this emissions unit shall not exceed 0.53 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive PE limitation shall be demonstrated by multiplying an emission factor of 0.35 lb/ton from Table 2.7-1 of the Ohio EPA document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September, 1980 by the maximum annual sand processed (3000 tpy), and then dividing by 2000 lbs/ton.

c. Emission Limitation:

VOC emissions from this emissions unit shall not exceed 0.84 lb/hr and 1.58 tpy.

Applicable Compliance Method:

The hourly VOC emission limitation is based upon the potential to emit for this emissions unit. The annual VOC emission limitation is based on the production restriction of 3,000 tons of sand per year. Therefore, as long as compliance with the production restriction is maintained, compliance with the annual emission limitation is assumed. Compliance with the production restriction is based upon the record keeping requirements specified in d)(3).

d. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the visible emissions of fugitive dust limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9, 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.



g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the increase in emissions due to the modification(s) to the emissions unit was less than 1 tpy of each toxic pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices").