OhioEPA

State of Ohio Environmental Protection Agency

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

RE: FINAL PERMIT TO INSTALL MODIFICATION
HAMILTON COUNTY
Application No: 14-06001
Fac ID: 1431260066

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 3/6/2008

Sawbrook Steel Castings Company
Steve Cox
425 Shepherd Avenue
Cincinnati, OH 45215

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action of the Director is final 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 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
309 South Fourth Street, Room 222
Columbus, OH 43215

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: **USEPA** **HCDES**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 14-06001

Application Number: 14-06001

Facility ID: 1431260066

Permit Fee: **$250**

Name of Facility: Sawbrook Steel Castings Company

Person to Contact: Steve Cox

Address: 425 Shepherd Avenue
Cincinnati, OH 45215

Location of proposed air contaminant source(s) [emissions unit(s)]:
425 Shepherd Avenue
Cincinnati, **Ohio**

Description of proposed emissions unit(s):
Facility requested an administrative modification to PTI 14-06001 to re-evaluate BAT applicability and monitoring requirements.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

Part I - GENERAL TERMS AND CONDITIONS

A. 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 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 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 (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.)

3. Records Retention Requirements

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.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air

contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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 verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

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 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. 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 emissions unit(s) that is (are) served by such control system(s).

6. 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.

7. 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.

8. 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.

9. 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.

10. 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.

11. 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.

12. 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.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This 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 emissions unit(s) covered by this permit.

14. 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.

15. 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.

B. 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
PE	0.68
PM10	0.10
VOC	3.94

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. 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 -(F009) - Core Room Air-Set Mold Making

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 2.46 pounds per hour* and 3.94 tons per year (TPY). Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.06 pound per hour* and 0.10 ton per year (TPY). Particulate emissions (PE) shall not exceed 0.42 pound per hour* and 0.68 ton per year (TPY). The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B). There shall be no visible fugitive emissions from building egress points from this emissions unit. See terms and conditions A.2.a and B.1. *The hourly emission limitations outlined above are based on the emission unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

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Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-08(B)(3)	The fabric filter serving this emissions unit shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions from the outlet, whichever is less stringent.
OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The permittee shall employ reasonably available control measures to minimize or eliminate visible emissions of fugitive dust. In accordance with the permittee's application, the permittee has committed to utilize and maintain a fabric filter to ensure compliance with the above-mentioned applicable requirements.

2.b Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations, use of a fabric filter and the sand throughput restriction.

B. Operational Restrictions

1. The maximum annual sand throughput for this emissions unit shall not exceed 6,730 tons per year.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the pressure drop, in inches of water, across the baghouse during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

   Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

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In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted. This range is 2 inches of water to 7 inches of water effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

The permittee may request revisions to the pressure drop range based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the pressure drop range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving 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 location and color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to minimize or eliminate the visible emissions.

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

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

The permittee may, upon receipt of written approval from Hamilton County Department of Environmental Services, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

3. The permittee shall collect and record the following information annually for the purpose of determining annual VOC emissions:

   a. the name and identification of each binder system for the core sand used in this emissions unit;

   b. the amount of each binder system used in this emissions unit, in pounds;

   c. the amount of core sand used in this emissions unit, in tons, determined by the binder system to sand mix ratio of 1:100 where the pounds of binder from (b) are multiplied by 100 pounds of sand, divided by 2000 pounds/ton; and

   d. the total emissions, in tons, of VOC calculated by the following equation:

      E = (total amount of core sand used, in tons/year x 1.17 lbs VOC/ton of sand*)/2000,

      where E = Emissions Rate (tons per year).

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

4. The permittee shall develop, implement, and maintain a preventive maintenance plan designed to minimize particulate emissions and ensure the compliance status of this emissions unit. The preventive maintenance plan and related records must be kept onsite and available for inspection during regular office hours.

D. 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 stack serving this emissions unit, (b) identify all days during which any visible emissions of fugitive dust were observed from

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the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust emissions. These reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 and July 31 of each year and shall cover the previous six-month periods.

2. The permittee shall submit annual reports that identify any exceedances of the annual sand throughput limitation, as well as the corrective actions that were taken to achieve compliance. If no exceedances occurred, the permittee shall submit a report which states that no exceedances occurred during that calendar year. These reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 of each year.

3. The permittee shall submit annual reports that specify the total VOC emissions from this emissions unit for the calendar year. These reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 of each year.

E. Testing Requirements

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

   a. <u>Emissions Limitation</u>

   Volatile organic compound (VOC) emissions shall not exceed 2.46 pounds per hour.

   <u>Applicable Compliance Method</u>

   The hourly VOC emissions rate is based on this emissions unit's uncontrolled potential to emit. The hourly VOC emissions rate was calculated by the following equation using the information submitted by the permittee in PTI Application 14-06001, submitted on November 8, 2007:

   E = maximum sand processing capacity of 2.10 tons/hour x 1.17 lbs VOC/ton of sand per the OhioEPA/OCMA binder system emissions factor for phenolic urethane no-bake resins, published 2/16/1998,

   where E = Emissions Rate (pounds per hour).

   b. <u>Emissions Limitation</u>

   Volatile organic compound (VOC) emissions shall not exceed 3.94 TPY.

   <u>Applicable Compliance Method</u>

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Compliance with the annual VOC emission limitation shall be determined by compliance with the sand throughput restriction specified in Section B.1 and the record keeping requirements specified in Section C.3.

c. Emissions Limitation

Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.06 pound per hour.

Applicable Compliance Method

The PM10 hourly emissions rate is based on this emissions unit's controlled potential to emit. The PM10 hourly emissions rate is calculated by the following equation using the information submitted by the permittee in PTI Application 14-06001, submitted on November 8, 2007:

E = maximum sand processing capacity of 2.10 tons/hour x 0.54 lb PM10/ton of sand per AP-42 Section 12.13, Table 12.13-2, dated 1/1995 x (1 - 0.944, for control efficiency of baghouse);

where E = Emissions Rate (pounds per hour).

d. Emissions Limitation

Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.10 TPY.

Applicable Compliance Method

The PM10 annual emissions rate is calculated by the following equation using the information submitted by the permittee in PTI Application 14-06001, submitted on November 8, 2007:

E = maximum sand processing capacity of 6730 tons/year x 0.54 lb PM10/ton of sand per AP-42 Section 12.13, Table 12.13-2, dated 1/1995 x (1 - 0.944, for control efficiency of baghouse)/(2000);

where E = Emissions Rate (tons per year).

e. Emissions Limitation

Particulate emissions (PE) shall not exceed 0.42 pound per hour and 0.68 ton per year (TPY).

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Applicable Compliance Method

The hourly emission rate for PE is calculated by the following equation using the information submitted by the permittee in PTI Application 14-06001, submitted on November 8, 2007:

E = maximum sand processing capacity of 2.10 tons/hour x 0.2 lb PE/ton of sand per AP-42 Section 12.10, Table 12.10-7, dated 1/1995, for sand handling with baghouse controls,

where E = Emissions Rate (lb/hour).

The annual emission rate for PE is calculated by the following equation using the information submitted by the permittee in PTI Application 14-06001, submitted on November 8, 2007:

E = maximum sand processing capacity of 6730 tons/year x 0.2 lb PE/ton of sand per AP-42 Section 12.10, Table 12.10-7, dated 1/1995, for sand handling with baghouse controls/(2000),

where E = Emissions Rate (tons per year).

f. Emissions Limitation

The fabric filter serving this emissions unit shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions from the outlet, whichever is less stringent..

Applicable Compliance Method

If required, the permittee shall demonstrate compliance by emission testing in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

If required, compliance with the visible emission limitation shall be determined in accordance with Test Method 9 set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”), as such appendix existed on July 1, 2002.

g. Emission Limitation

There shall be no visible fugitive emissions from building egress points from this emissions unit.

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Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 22.

h. Emissions Limitation

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method
If required, compliance with the visible emission limitation shall be determined in accordance with Test Method 9 set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”), as such appendix existed on July 1, 2002.

F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA’s “Air Toxic Policy” was not necessary because the emissions unit’s maximum annual emissions for each toxic compound will be less than 1.0 ton. 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 pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

2. The terms and conditions of this permit to install shall supersede the terms and conditions of permit to install 14-06001 issued on 1/3/2008.

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