INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

NOTICE OF 30-DAY PERIOD
FOR PUBLIC COMMENT

Preliminary Findings Regarding a
Significant Revision to a
Minor Source Operating Permit (MSOP)

for Kendon in Delaware County

Significant Permit Revision No.: 035-35887-00064

The Indiana Department of Environmental Management (IDEM) has received an application from Kendon, located at 3904 S. Hoyt Avenue, Muncie, IN 47302, for a significant revision of its MSOP issued on May 14, 2008. If approved by IDEM's Office of Air Quality (OAQ), this proposed revision would allow Kendon to make certain changes at its existing source. Kendon has applied to remove the following processes:

(g) One (1) initial grinding process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) dust collector (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.

(h) One (1) initial blasting process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.

(i) One (1) final grinding process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) dust collector (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.

(j) One (1) final blasting process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.

and replace them with four (4) Empire Blast Cabinets and associated baghouse. The source also updated the permit with additional constructed emission units not included in previous permits.

The following is a list of the unpermitted emission units:

(a) Two (2) Empire blast cabinets for the initial casting cleaning processes, constructed in 2012, each with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 03, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

(b) Two (2) Empire blast cabinets for the final casting cleaning processes, constructed in 2012, each with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 03, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

(c) One (1) aluminum grinding operation, constructed in 2015, with a maximum amount of 0.48 pound of aluminum fines collected per day, using a Hydrotron wet dust collector for particulate control, exhausting outside.

(d) One (1) milling/boring operation, constructed in 2003, with a maximum throughput of one-hundred forty (140) pounds of metal castings per hour, consisting of five (5) machines, with a maximum amount of 0.80 pound of iron dust generated per hour, using a Torit Downflo dust collector, identified as TD1, for particulate control, exhausting outside.

(e) One (1) hand-held polishing operation, constructed in 2003, consisting of five (5) machines, with a maximum amount of 1.0 pound or iron dust generated per hour, using a Torit Downflo dust collector, identified as TD2, for particulate control, exhausting outside.

(f) Six (6) CNC machines, constructed in 2003, used for turning tools to cut features into metal parts, with a maximum amount of 1000 gallons of coolant per year, with no control, exhausting inside.

(g) Three (3) natural gas space heaters, constructed in 2003, each with a maximum rating of 0.15 MMBtu per hour, with no control, exhausting outside.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g. changes that add or modify synthetic minor emission limits). IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

IDEM is aware that the four (4) Empire Blast Cabinets, one (1) Aluminum Grinding Operation, one (1) Milling/Boring Operation, one (1) Hand-Held Polishing Operation, six (6) CNC Machines, and three (3) Natural Gas Space Heaters, has been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take appropriate action. This draft significant revision of a MSOP contains provisions to bring unpermitted equipment into compliance with construction and operation permit rules.

A copy of the permit application and IDEM's preliminary findings are available at:

Carnegie Library
301 East Jackson Street
Muncie, IN 47305

A copy of the preliminary findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit

application, please contact IDEM at the address below. Please refer to permit number SPR 035-35887-00064 in all correspondence.

Comments should be sent to:

John Chi
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 4-5374
Or dial directly: (317) 234-5374
Fax: (317) 232-6749 attn: John Chi
E-mail: jchi@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact John Chi of my staff at the above address.

Iryn Galilung, Section Chief
Permits Branch
Office of Air Quality

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

Dick Elias
Kendon
3904 S. Hoyt Avenue
Muncie, IN 47302

Re: 035-35887-00064
Significant Revision to
M035-24861-00064

Dear Dick Elias:

Kendon was issued a Minor Source Operating Permit (MSOP) Renewal No. M035-24861-00064 on May 14, 2008, for a stationary gray iron foundry located at 3904 S. Hoyt Avenue, Muncie, IN 47307. On May 29, 2015, the Office of Air Quality (OAQ) received an application from the source requesting the removal of two (2) grinding processes and two (2) blasting processes, which were replaced by four (4) Empire Blast Cabinets. The source also added the following units: one (1) aluminum grinding operation, one (1) milling/boring operation, one (1) handheld polishing operation, seven (7) CNC Machines, and three (3) natural gas space heaters. The attached Technical Support Document (TSD) provides additional explanation of the changes to the source/permit. Pursuant to the provisions of 326 IAC 2-6.1-6, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-6.1-6(i). Pursuant to the provisions of 326 IAC 2-6.1-6, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

Pursuant to 326 IAC 2-6.1-6, this permit shall be revised by incorporating the significant permit revision into the permit.

All other conditions of the permit shall remain unchanged and in effect. Please find attached the entire MSOP as revised. The permit references the below listed attachment. Since this attachment has been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of this attachment with this revision:

Attachment A: 40 CFR Part 63, Subpart ZZZZZ, National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources.

Previously issued approvals for this source containing these attachments are available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact John Chi of my staff at 317-234-5374 or 1-800-451-6027, and ask for extension 4-5374.

Sincerely,

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Technical Support Document and revised permit

IC/JC

cc: File - Delaware County
Delaware County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch

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Commissioner

MINOR SOURCE OPERATING PERMIT RENEWAL
OFFICE OF AIR QUALITY

Kendon
3904 South Hoyt Avenue
Muncie, Indiana 47307

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M035-24861-00064	
Issued by: *Original signed by* Matthew Stuckey, Chief Permits Branch Office of Air Quality	Issuance Date: May 14, 2008 Expiration Date: May 14, 2018

First Notice - Only Change No. 035-28969-00064, issued on March 10, 2010.

Significant Permit Revision No.: 035-35887-00064	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: Expiration Date: May 14, 2018

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary gray iron foundry.

Source Address:	3904 South Hoyt Avenue, Muncie, Indiana 47307
General Source Phone Number:	(765) 282-1515
SIC Code:	3321, 3599
County Location:	Delaware
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

One (1) gray iron foundry, with a maximum metal melting rate of one (1) ton per hour and consisting of the following processes and control devices constructed in 1974 (unless otherwise noted):

(a) One (1) sand handling process, with a maximum raw material throughput of ten (10) tons per hour, using one (1) baghouse (Torit DF T2 8) for control, with emissions exhausting to the general exhaust vent identified as EP-03.

(b) One (1) melting process, consisting of the melting of gray iron by two (2) electric induction furnaces, identified as EU-01 and EU-02, pouring and cooling, and charge handling with a maximum metal throughput of one (1) ton per hour. Emissions exhaust to stacks identified as EP-01 and EP-02.

(c) One (1) metal cleaning and finishing shot blasting process, using steel shot, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent, identified as EP-03.

(d) One (1) shakeout process, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(e) One (1) pouring and casting process, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(f) One (1) cooling process, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(g) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse,

identified as Baghouse 03, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

(h) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 04, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

(i) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 05, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process.

(j) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 06, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process.

(k) One (1) core and mold making operation, constructed in 2002, with a maximum throughput of 1.0 ton of metal per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(l) One (1) mold blaster, constructed in 2003, with a maximum throughput rate of 1,500 pounds of mold segments per hour and a maximum abrasive (aluminum oxide) usage of 1,392 lbs/hour, using a dust collector for control, with emissions exhausting inside the building.

(m) One (1) aluminum grinding operation, constructed in 2015, with a maximum amount of 0.48 pound of aluminum fines collected per day, using a Hydrotron wet dust collector for particulate control, exhausting outside.

(n) One (1) milling/boring operation, constructed in 2003, with a maximum throughput of one-hundred forty (140) pounds of metal castings per hour, consisting of five (5) machines, with a maximum amount of 0.80 pound of iron dust generated per hour, using a Torit Downflo dust collector, identified as TD1, for particulate control, exhausting outside.

(o) One (1) hand-held polishing operation, constructed in 2003, consisting of five (5) machines, with a maximum amount of 1.0 pound or iron dust generated per hour, using a Torit Downflo dust collector, identified as TD2, for particulate control, exhausting outside.

(p) Seven (7) CNC machines, with different construction dates, used for turning tools to cut features into metal parts, with a combined maximum amount of 1000 gallons of coolant per year, exhausting inside. The seven (7) CNC machines are summarized as follows:

Tank ID	Construction Year	Control
Four (4) CNC Machines	2003	No Control
One (1) CNC Machine	2010	Mist Collector
One (1) CNC Machine	2014	Mist Collector
One (1) CNC Machine	2015	Mist Collector

(q) Three (3) natural gas space heaters, constructed in 2003, each with a maximum rating of 0.15 MMBtu per hour, with no control, exhausting outside.

The above units are considered affected facilities under NESHAP Subpart ZZZZZ, National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, M035-24861-00064, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege

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

B.7 Duty to Provide Information

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

(c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.9 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M035-24861-00064 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.12 Permit Renewal [326 IAC 2-6.1-7]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least ninety (90) days prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the

document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.14 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.15 Inspection and Entry
[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.17 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing.

(b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.18 Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on. The plan is included as Attachment A.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue

MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.10 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

C.12 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.13 Instrument Specifications [326 IAC 2-1.1-11]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

C.14 Response to Excursions or Exceedances

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record reasonable response steps taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred twenty (180) after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.16 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.17 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present

or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required**,** the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.18 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

(c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

One (1) gray iron foundry, with a maximum metal melting rate of one (1) ton per hour and consisting of the following processes and control devices constructed in 1974 (unless otherwise noted):

(a) One (1) sand handling process, with a maximum raw material throughput of ten (10) tons per hour, using one (1) baghouse (Torit DF T2 8) for control, with emissions exhausting to the general exhaust vent identified as EP-03.

(b) One (1) melting process, consisting of the melting of gray iron by two (2) electric induction furnaces, identified as EU-01 and EU-02, pouring and cooling, and charge handling with a maximum metal throughput of one (1) ton per hour. Emissions exhaust to stacks identified as EP-01 and EP-02.

(c) One (1) metal cleaning and finishing process shot blasting, using steel shot, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent, identified as
EP-03.

(d) One (1) shakeout process, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(e) One (1) pouring and casting process, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(f) One (1) cooling process, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(g) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 03, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

(h) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 04, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

(i) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 05, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process.

(j) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 06, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process.

(k) One (1) core and mold making operation, constructed in 2002, with a maximum throughput of 1.0 ton of metal per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(l) One (1) mold blaster, constructed in 2003, with a maximum throughput rate of 1,500 pounds of mold segments per hour and a maximum abrasive (aluminum oxide) usage of 1,392 lbs/hour, using a dust collector for control, with emissions exhausting inside the building.

(m) One (1) aluminum grinding operation, constructed in 2015, with a maximum amount of 0.48 pound of aluminum fines collected per day, using a Hydrotron wet dust collector for particulate control, exhausting outside.

(n) One (1) milling/boring operation, constructed in 2003, with a maximum throughput of one-hundred forty (140) pounds of metal castings per hour, consisting of five (5) machines, with a maximum amount of 0.80 pound of iron dust generated per hour, using a Torit Downflo dust collector, identified as TD1, for particulate control, exhausting outside.

(o) One (1) hand-held polishing operation, constructed in 2003, consisting of five (5) machine, with a maximum amount of 1.0 pound or iron dust generated per hour, using a Torit Downflo dust collector, identified as TD2, for particulate control, exhausting outside.

(p) Seven (7) CNC machines, with different construction dates, used for turning tools to cut features into metal parts, with a combined maximum amount of 1000 gallons of coolant per year, exhausting inside. The seven (7) CNC machines are summarized as follows:

Tank ID	Construction Year	Control
Four (4) CNC Machines	2003	No Control
One (1) CNC Machine	2010	Mist Collector
One (1) CNC Machine	2014	Mist Collector
One (1) CNC Machine	2015	Mist Collector

(q) Three (3) natural gas space heaters, constructed in 2003, each with a maximum rating of 0.15 MMBtu per hour, with no control, exhausting outside.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.1.1 Particulate Matter Limitations [326 IAC 2-2]

(a) In order to render 326 IAC 2-2 not applicable, the Particulate Matter (PM) emissions from the following operations shall be limited as follows:

Process/Facility	PM (lb/hour)
Scrap and Charge Handling	0.60
(2) Electric Induction Furnaces	0.90
Pouring/ Casting	4.20
Castings Cooling	1.40
Castings Shakeout	3.20

Process/Facility	PM (lb/hour)
Empire Blast Cabinet (Baghouse 03)	0.14
Empire Blast Cabinet (Baghouse 04)	0.14
Empire Blast Cabinet (Baghouse 05)	0.14
Empire Blast Cabinet (Baghouse 06)	0.14
Core Making	0.90
Metal Finishing	0.004
Mold Making	0.90
Mold Blaster	0.13
Aluminum Grinding Operation	0.0068
Milling/Boring Operation	0.089
Hand-Held Polishing Operation	0.014

(b) The raw material throughput for the sand handling operation shall be limited to 87,600 tons per twelve (12) consecutive months period, with compliance determined at the end of each month. The PM emissions from the sand handling operation baghouse shall not exceed 0.36 lb/ton.

Compliance with the above limits ensures the PM emissions from the entire source are limited to less than 100 tons per year and renders the requirements of 326 IAC 2-2 not applicable.

D.1.2 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions shall be limited as follows:

Process	PM (lb/hour)
(2) Electric Induction Furnaces	4.1
Pouring/ Casting	20.4
Castings Cooling	20.4
Castings Shakeout	20.4
Empire Blast Cabinet (Baghouse 03)	2.58
Empire Blast Cabinet (Baghouse 04)	2.58
Empire Blast Cabinet (Baghouse 05)	2.58
Empire Blast Cabinet (Baghouse 06)	2.58
Core Making	4.1
Metal Finishing	4.1
Mold Making	4.1
Sand Handling	41.0
Mold Blaster	3.38
Milling/Boring Operation	0.69

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for this facility. Section B - Preventive Maintenance Plan, of this permit, contains the Permittee's obligation with regard to this condition.

Compliance Determination Requirements

D.1.4 Particulate Control

(a) In order to comply with Conditions D.1.1 and D.1.2, the baghouses Torit DF-T2-8, TD1, TD2, the Hydroton wet dust collector, the Empire Blast Cabinets' baghouses (Baghouse 03-Baghouse 06), and the Mold Blaster baghouse for particulate control shall be in operation and control emissions from the sand handling operation, the milling/boring operation, the hand-held polishing operation, the aluminum grinding operation, the Empire Blast Cabinets, and the mold blaster at all times that the associated facilities are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.1.5 Testing Requirements [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing for the sand handling operation no later than five (5) years of the last compliant stack test, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.6 Visible Emissions Notations

(a) Daily visible emission notations of the stack exhaust EP-03 shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.7 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the Torit DF-T2-8, TD1, TD2, the Hydroton wet dust collector, the Empire Blast Cabinets' baghouses (Baghouse 03-Baghouse 06), and the Mold Blaster baghouse used in conjunction with the sand handling operation, the milling/boring operation, the hand-held polishing operation, the aluminum grinding operation, the Empire Blast Cabinets and mold blaster at least once per day when the sand

handling, the milling/boring operation, the hand-held polishing operation, the aluminum grinding operation, the Empire Blast Cabinets, and mold blaster are in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range, the Permittee shall take reasonable response. The normal range for each baghouse is a pressure drop between the values listed in the table below unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C-Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

Emission Unit	Control ID	Pressure Drop Range (inches of H_2O)
One (1) Sand Handling Process	Torit DF-T2-8	1.0-5.0
One (1) Milling/Boring Operation	TD1	1.0-5.0
One (1) Hand-Held Polishing Operation	TD2	1.0-5.0
One (1) Aluminum Grinding Operation	Hydroton Wet Dust Collector	4.0-8.0
Four (4) Empire Blast Cabinets	Baghouse 03-Baghouse 06	1.0-5.0
One (1) Mold Blaster	Dust Collector	0.5-5.0

(b) The instruments used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

D.1.8 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, failed units and the associated process shall be shut down immediately until the failed unit have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Response to Excursions or Exceedances).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Response to Excursions or Exceedances).

Bag failure can be indicated by a significant drop in the baghouses' pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.9 Record Keeping Requirement

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the raw material throughput to the sand handling operation.

(b) To document compliance with Condition D.1.6 the Permittee shall maintain records of daily visible emission notations of the stack exhaust EP-03. The Permittee shall include

in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.1.7, the Permittee shall maintain daily records of the total static pressure drop during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require the certification by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-8-4(10)]:

One (1) gray iron foundry, with a maximum metal melting rate of one (1) ton per hour and consisting of the following processes and control devices constructed in 1974 (unless otherwise noted):

(a) One (1) sand handling process, with a maximum raw material throughput of ten (10) tons per hour, using one (1) baghouse (Torit DF T2 8) for control, with emissions exhausting to the general exhaust vent identified as EP-03.

(b) One (1) melting process, consisting of the melting of gray iron by two (2) electric induction furnaces, identified as EU-01 and EU-02, pouring and cooling, and charge handling with a maximum metal throughput of one (1) ton per hour. Emissions exhaust to stacks identified as EP-01 and EP-02.

(c) One (1) metal cleaning and finishing shot blasting process, using steel shot, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent, identified as EP-03.

(d) One (1) shakeout process, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(e) One (1) pouring and casting process, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(f) One (1) cooling process, with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(g) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 03, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

(h) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 04, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

(i) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 05, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process.

(j) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 06, for particulate control, with emissions

exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process.

(k) One (1) core and mold making operation, constructed in 2002, with a maximum throughput of 1.0 ton of metal per hour, with emissions exhausting to the general exhaust vent identified as EP-03.

(l) One (1) mold blaster, constructed in 2003, with a maximum throughput rate of 1,500 pounds of mold segments per hour and a maximum abrasive (aluminum oxide) usage of 1,392 lbs/hour, using a dust collector for control, with emissions exhausting inside the building.

(m) One (1) aluminum grinding operation, constructed in 2015, with a maximum amount of 0.48 pound of aluminum fines collected per day, using a Hydrotron wet dust collector for particulate control, exhausting outside.

(n) One (1) milling/boring operation, constructed in 2003, with a maximum throughput of one-hundred forty (140) pounds of metal castings per hour, consisting of five (5) machines, with a maximum amount of 0.80 pound of iron dust generated per hour, using a Torit Downflo dust collector, identified as TD1, for particulate control, exhausting outside.

(o) One (1) hand-held polishing operation, constructed in 2003, consisting of five (5) machines, with a maximum amount of 1.0 pound or iron dust generated per hour, using a Torit Downflo dust collector, identified as TD2, for particulate control, exhausting outside.

(p) Seven (7) CNC machines, with different construction dates, used for turning tools to cut features into metal parts, with a combined maximum amount of 1000 gallons of coolant per year, exhausting inside. The seven (7) CNC machines are summarized as follows:

Tank ID	Construction Year	Control
Four (4) CNC Machines	2003	No Control
One (1) CNC Machine	2010	Mist Collector
One (1) CNC Machine	2014	Mist Collector
One (1) CNC Machine	2015	Mist Collector

(q) Three (3) natural gas space heaters, constructed in 2003, each with a maximum rating of 0.15 MMBtu per hour, with no control, exhausting outside.

The above units are considered affected facilities under NESHAP Subpart ZZZZZ, National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements

E.1.1 General Provisions Relating to NESHAP [40 CFR Part 63, Subpart A] [326 IAC 20-1]

Pursuant to 40 CFR 63, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, except as otherwise specified in 40 CFR 63, Subpart ZZZZZ.

E.1.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Iron and Steel Foundries Area Sources [40 CFR Part 63, Subpart ZZZZZ]

The Permittee, which owns or operates stationary Iron and Steel Foundries Area Sources at an area source of HAP emissions shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ Z (included as Attachment A of this permit):

(a) 40 CFR 63.10880
(b) 40 CFR 63.10881
(c) 40 CFR 63.10885
(d) 40 CFR 63.10886
(e) 40 CFR 63.10890
(f) 40 CFR 63.10899
(g) 40 CFR 63.10905
(h) 40 CFR 63.10906

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch

Quarterly Report

Source Name: Kendon
Source Address: 3904 South Hoyt Avenue, Muncie, Indiana 47307
MSOP Permit No.: M035-24861-00064
Source/Facility: Sand handling operation
Parameter: Maximum sand throughput
Limit: 87,600 tons per twelve (12) consecutive month period with compliance determined at the end of each month

QUARTER: YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Kendon
Address:	3904 South Hoyt Avenue
City:	Muncie, Indiana 47307
Phone #:	(765) 282-1515
MSOP #:	M035-24861-00064

I hereby certify that Kendon is:	☐ still in operation. ☐ no longer in operation.
I hereby certify that Kendon is:	☐ in compliance with the requirements of MSOP M035-24861-00064. ☐ not in compliance with the requirements of MSOP M035-24861-00064.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-6865

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____
*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____
_____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision (SPR) for a Minor Source Operating Permit (MSOP)

Source Description and Location

Source Name:	**Kendon**
Source Location:	**3904 S. Hoyt Avenue, Muncie, IN 47307**
County:	**Delaware**
SIC Code:	**3321 (Gray and Ductile Iron Foundries); 3599 (Industrial and Commercial Machinery and Equipment, Not Elsewhere Classified)**
Operation Permit No.:	**035-24861-00064**
Operation Permit Issuance Date:	**May 15, 2008**
Significant Permit Revision No.:	**035-35887-00064**
Permit Reviewer:	**John Chi**

On May 29, 2015, the Office of Air Quality (OAQ) received an application from Kendon related to a modification to an existing gray iron foundry.

Existing Approvals

The source was issued MSOP (Renewal) No. M035-24861-00064 on May 14, 2008. The source has since received the following approvals:

(a) Notice-Only Change No. 035-28969-00064, issued on March 3, 2010.

County Attainment Status

The source is located in Delaware County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.[1]
$PM_{2.5}$	Unclassifiable or attainment effective April 5, 2005, for the annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 24-hour $PM_{2.5}$ standard.
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Nonattainment effective December 31, 2010, for a portion of the city of Muncie, Indiana bounded to the north by West Street/Hines Road, to the east by Cowan Road, to the south by West Fuson Road, and to the west by a line running south from the eastern edge of Victory Temple's driveway to South Hoyt Avenue and then along South Hoyt Avenue. Unclassifiable or attainment effective December 31, 2011, for the remainder of the county.
[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.	

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality

Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Delaware County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Delaware County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Lead
The portion of Delaware County in the City of Muncie bounded by West 26th Street/Hines Road to the North, Cowan Road to the East, West Fuson Road to the South, and South Hoyt Avenue to the West has been classified as nonattainment for Lead in 75 FR 71033 dated November 22, 2010. Therefore, Lead emissions were evaluated pursuant to the requirements of Emission Offset, 326 IAC 2-3.

This source is located in South Hoyt Avenue, therefore this source is located in a nonattainment area for Lead.

(d) Other Criteria Pollutants
Delaware County has been classified as attainment or unclassifiable in Indiana for all other crteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

(a) The fugitive emissions of regulated pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.

(b) Since this source is classified as a secondary metal production plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, and 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Status of the Existing Source

The table below summarizes the uncontrolled/unlimited potential to emit of the entire source, prior to the proposed revision:

This PTE table is from the Appendix A of Permit #: M035-24861-00064, issued on May 14, 2008.

	Uncontrolled/Unlimited Potential To Emit of the Entire Source Prior to Revision (tons/year)								
Process/ Emission Unit	PM	PM10*	PM2.5**	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Charge Handling	2.63	1.58	1.58	0.00	0.00	0.00	0.00	0.10	0.081 Manganese
Electric Induction Furnace	3.94	3.77	3.77	0.00	0.00	0.00	0.00	0.37	0.239 Lead
Pouring/Casting	18.4	9.02	9.02	0.09	0.04	0.61	26.3	0.70	0.570 Manganese
Castings Cooling	6.13	6.13	6.13	0.00	0.00	0.00			
Main Castings Shakeout	14.0	9.81	9.81	0.00	0.00	5.26		0.53	0.434 Manganese

Process/ Emission Unit	Uncontrolled/Unlimited Potential To Emit of the Entire Source Prior to Revision (tons/year)								
	PM	PM10*	PM2.5**	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Grinding/Blasting	149	14.9	14.9	0.00	0.00	0.00	0.00	5.64	4.62 Manganese
Metal Finishing	0.02	0.02	0.02	0.00	0.00	0.00	0.00		
Core Making	3.94	3.94	3.94	0.00	2.19	0.00	0.00	-	-
Mold Making	3.94	3.94	3.94	0.00	2.19	0.00	0.00	-	-
Mold Blaster	55.8	5.58	5.58	0.00	0.00	0.00	0.00	2.82	2.31 Manganese
Main Sand Handling	158	23.7	23.7	0.00	0.00	0.00	0.00	-	-
Total PTE of Entire Source Not Including Fugitives	**415.8**	**82.3**	**82.3**	**0.09**	**4.42**	**5.87**	**26.3**	**10.16**	**8.13 Manganese**
Title V Major Source Thresholds	-	100	100	100	100	100	100	25	10
MSOP Threshold	25	25	25	25	25	25	-	-	-

negl. = negligible
* Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.
These emissions are based upon ATSD to MSOP No. 035-24861-00064, issued on May 14, 2008.

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by Kendon on March 29, 2015, relating to a modification to an existing gray iron foundry.

The source removed the following processes:

(g) One (1) initial grinding process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) dust collector (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.

(h) One (1) initial blasting process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.

(i) One (1) final grinding process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) dust collector (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.

(j) One (1) final blasting process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.

and replaced them with four (4) Empire Blast Cabinets and associated baghouses. The source also updated the permit with additional constructed emission units not included in previous permits.

The following is a list of the unpermitted emission units:

(a) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 03, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

(b) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 04, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

(c) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 05, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

(d) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 06, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

(e) One (1) aluminum grinding operation, constructed in 2015, with a maximum amount of 0.48 pound of aluminum fines collected per day, using a Hydrotron wet dust collector for particulate control, exhausting outside.

(f) One (1) milling/boring operation, constructed in 2003, with a maximum throughput of one-hundred forty (140) pounds of metal castings per hour, consisting of five (5) machines, with a maximum amount of 0.80 pound of iron dust generated per hour, using a Torit Downflo dust collector, identified as TD1, for particulate control, exhausting outside.

(g) One (1) hand-held polishing operation, constructed in 2003, consisting of five (5) machines, with a maximum amount of 1.0 pound or iron dust generated per hour, using a Torit Downflo dust collector, identified as TD2, for particulate control, exhausting outside.

(h) Seven (7) CNC machines, with different construction dates, used for turning tools to cut features into metal parts, with a combined maximum amount of 1000 gallons of coolant per year, exhausting inside. The seven (7) CNC machines are summarized as follows:

Tank ID	Construction Year	Control
Four (4) CNC Machines	2003	No Control
One (1) CNC Machine	2010	Mist Collector
One (1) CNC Machine	2014	Mist Collector
One (1) CNC Machine	2015	Mist Collector

(i) Three (3) natural gas space heaters, constructed in 2003, each with a maximum rating of 0.15 MMBtu per hour, with no control, exhausting outside.

Enforcement Issues

IDEM, OAQ is aware that equipment has been constructed and operated prior to receipt of the proper permit. IDEM, OAQ is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction and operating permit rules.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – MSOP Revision

The following table is used to determine the appropriate permit level under 326 IAC 2-6.1-6. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	Uncontrolled/Unlimited Potential To Emit of Proposed Revision (tons/year)								
	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Empire Blast Cabinet (Baghouse 03)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.41	1.15 Manganese
Empire Blast Cabinet (Baghouse 04)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.41	1.15 Manganese
Empire Blast Cabinet (Baghouse 05)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.41	1.15 Manganese
Empire Blast Cabinet (Baghouse 06)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.41	1.15 Manganese
Aluminum Grinding Operation	0.29	0.29	0.29	0.00	0.00	0.00	0.00	-	-
Milling/Boring Operation	3.89	3.89	3.89	0.00	0.00	0.00	0.00	-	-
Hand-Held Polishing Operation	0.61	0.61	0.61	0.00	0.00	0.00	0.00	-	-
CNC Machines	Neg.	Neg.	Neg.	0.00	0.00	0.48	0.00	-	-
Natural Gas Combustion	0.00	0.01	0.01	0.00	0.19	0.01	0.16	0.004	0.004 Hexane
Paved Roads (Fugitive Emissions)	0.01	0.00	0.00	-	-	-	-	-	-
Total PTE of Proposed Revision	**153.73**	**19.70**	**19.70**	**0.00**	**0.19**	**0.49**	**0.16**	**5.64**	**4.62 Manganese**
negl. = negligible									

Pursuant to 326 IAC 2-6.1-6(i)(1)(E), this MSOP is revised through a Significant Permit Revision because the proposed revision is not an Administrative Amendment or Minor Permit Revision and the proposed revision involves the replacement of old emissions units, where the new emission units still have the potential to emit greater than or equal to twenty-five (25) tons per year of PM.

PTE of the Entire Source After Issuance of the MSOP Revision

The table below summarizes the uncontrolled/unlimited potential to emit of the entire source, with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Uncontrolled/Unlimited Potential To Emit of the Entire Source After Revision (tons/year)								
	PM	PM10*	PM2.5**	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Charge Handling	2.63	1.58	1.58	0.00	0.00	0.00	0.00	0.10	0.08 Manganese
Electric Induction Furnace	3.94	3.77	3.77	0.00	0.00	0.00	0.00	0.15	0.12 Manganese

Process/ Emission Unit	Uncontrolled/Unlimited Potential To Emit of the Entire Source After Revision (tons/year)								
	PM	PM10*	PM2.5**	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Pouring/Casting	18.4	9.02	9.02	0.09	0.04	0.61	26.28	**3.19**	**1.00 Manganese**
Castings Cooling	6.13	6.13	6.13	0.00	0.00	0.00	**0.00**		
Main Castings Shakeout	14.0	9.81	9.81	0.00	0.00	5.26	**0.00**		
~~Grinding/Blasting~~	~~149~~	~~14.9~~	~~14.9~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~**4.62**~~	~~4.62 Manganese~~
Empire Blast Cabinet (Baghouse 03)	**37.23**	**3.72**	**3.72**	**0.00**	**0.00**	**0.00**	**0.00**	**1.15**	**1.41 Manganese**
Empire Blast Cabinet (Baghouse 04)	**37.23**	**3.72**	**3.72**	**0.00**	**0.00**	**0.00**	**0.00**	**1.15**	**1.41 Manganese**
Empire Blast Cabinet (Baghouse 05)	**37.23**	**3.72**	**3.72**	**0.00**	**0.00**	**0.00**	**0.00**	**1.15**	**1.41 Manganese**
Empire Blast Cabinet (Baghouse 06)	**37.23**	**3.72**	**3.72**	**0.00**	**0.00**	**0.00**	**0.00**	**1.15**	**1.41 Manganese**
Metal Finishing	0.02	0.02	0.02	0.00	0.00	0.00	0.00	-	-
Core Making	3.94	3.94	3.94	0.00	2.19	0.00	0.00	-	-
Mold Making	3.94	3.94	3.94	0.00	2.19	0.00	0.00	-	-
Mold Blaster	55.85	5.58	5.58	0.00	0.00	0.00	0.00	2.82	2.31 Manganese
Main Sand Handling	158	23.7	23.7	0.00	0.00	0.00	0.00	-	-
Aluminum Grinding Operation	**0.29**	**0.29**	**0.29**	**0.00**	**0.00**	**0.00**	**0.00**	**-**	**-**
Milling/Boring Operation	**3.89**	**3.89**	**3.89**	**0.00**	**0.00**	**0.00**	**0.00**	**-**	**-**
Hand-Held Polishing Operation	**0.61**	**0.61**	**0.61**	**0.00**	**0.00**	**0.00**	**0.00**	**-**	**-**
CNC Machines	**Neg.**	**Neg.**	**Neg.**	**0.00**	**0.00**	**0.48**	**0.00**	**-**	**-**
Flame Cutting	0.64	0.64	0.64	0.00	0.00	0.00	0.00	-	-
Natural Gas Combustion	**0.00**	**0.01**	**0.01**	**0.00**	**0.19**	**0.01**	**0.16**	**0.004**	**0.004 Hexane**
Total PTE of Entire Source Excluding Fugitives	**420.90**	**87.79**	**87.79**	**0.09**	**4.62**	**6.36**	**26.44**	**11.90**	**8.13 Manganese**
Title V Major Source Thresholds	-	100	100	100	100	100	100	25	10
Fugitive Emissions (Paved Roads)	0.01	0	0	0	0	0	0	-	-
Total PTE of Entire Source Including Fugitives	**420.91**	**87.79**	**87.79**	**0.09**	**4.62**	**6.36**	**26.44**	**11.90**	**8.13 Manganese**
MSOP Threshold	25	25	25	25	25	25	-	-	-

negl. = negligible
* Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.
PM has been limited to less than 100 tons/year to render 326 IAC 2-2 not applicable.

The table below summarizes the uncontrolled/unlimited potential to emit of the entire source after issuance of this revision. The table below was generated from the above table, with bold text un-bolded and strikethrough text deleted.

Process/ Emission Unit	Uncontrolled/Unlimited Potential To Emit of the Entire Source After Revision (tons/year)								
	PM	PM10*	PM2.5**	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Charge Handling	2.63	1.58	1.58	0.00	0.00	0.00	0.00	0.10	0.08 Manganese
Electric Induction Furnace	3.94	3.77	3.77	0.00	0.00	0.00	0.00	0.15	0.12 Manganese
Pouring/Casting	18.40	9.02	9.02	0.09	0.04	0.61	26.28	3.19	1.00 Manganese
Castings Cooling	6.13	6.13	6.13	0.00	0.00	0.00	0.00		
Main Castings Shakeout	14.0	9.81	9.81	0.00	0.00	5.26	0.00		
Empire Blast Cabinet (Baghouse 03)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.15	1.41 Manganese
Empire Blast Cabinet (Baghouse 04)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.15	1.41 Manganese
Empire Blast Cabinet (Baghouse 05)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.15	1.41 Manganese
Empire Blast Cabinet (Baghouse 06)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.15	1.41 Manganese
Metal Finishing	0.02	0.02	0.02	0.00	0.00	0.00	0.00	-	-
Core Making	3.94	3.94	3.94	0.00	2.19	0.00	0.00	-	-
Mold Making	3.94	3.94	3.94	0.00	2.19	0.00	0.00	-	-
Mold Blaster	55.8	5.58	5.58	0.00	0.00	0.00	0.00	2.82	2.31 Manganese
Main Sand Handling	158	23.7	23.7	0.00	0.00	0.00	0.00	-	-
Aluminum Grinding Operation	0.29	0.29	0.29	0.00	0.00	0.00	0.00	-	-
Milling/Boring Operation	3.89	3.89	3.89	0.00	0.00	0.00	0.00	-	-
Hand-Held Polishing Operation	0.61	0.61	0.61	0.00	0.00	0.00	0.00	-	-
CNC Machines	Neg	Neg	Neg	0.00	0.00	0.48	0.00	-	-
Flame Cutting	0.64	0.64	0.64	0.00	0.00	0.00	0.00	-	-
Natural Gas Combustion	0.00	0.01	0.01	0.00	0.19	0.01	0.16	0.004	0.004 Hexane
Total PTE of Entire Source Excluding Fugitives	**420.90**	**87.79**	**87.79**	**0.09**	**4.62**	**6.36**	**26.44**	**11.90**	**8.13 Manganese**
Title V Major Source Thresholds	-	100	100	100	100	100	100	25	10
Fugitive Emissions	0.01	0	0	0	0	0	0	-	-
Total PTE of Entire Source Including Fugitives	**420.91 *** **	**87.79**	**87.79**	**0.09**	**4.62**	**6.36**	**26.44**	**11.90**	**8.13 Manganese**
MSOP Threshold	25	25	25	25	25	25	-	-	-

negl. = negligible
* Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.
***PM has been limited to less than 100 tons/year to render 326 IAC 2-2 not applicable (1 of 28 listed source categories).

MSOP Status

(1) Criteria Pollutants
This revision to an existing Title V minor stationary source will not change the minor status, because the uncontrolled/unlimited potential to emit criteria pollutants from the

entire source will still be less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-6.1 (MSOP).

(2) HAPs
This revision will not change the minor status of the source, because the uncontrolled/unlimited potential to emit of any single HAP will still be less than ten (10) tons per year and the PTE of a combination of HAPs will still be less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

Permit Level Determination – PSD

PSD Minor Source – PM

(a) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the source shall comply with the following:

(1) The Particulate Matter (PM) emissions from the following operations shall be limited as follows:

Process/Facility	PM (tons/year)	PM (lb/hour)
Scrap and Charge Handling	2.63	0.60
(2) Electric Induction Furnaces	3.94	0.90
Pouring/ Casting	18.4	4.20
Castings Cooling	6.13	1.40
Castings Shakeout	14.0	3.20
Empire Blast Cabinet (Baghouse 03)*	0.63	0.14
Empire Blast Cabinet (Baghouse 04)*	0.63	0.14
Empire Blast Cabinet (Baghouse 05)*	0.63	0.14
Empire Blast Cabinet (Baghouse 06)*	0.63	0.14
Core Making	3.94	0.90
Metal Finishing	0.02	0.004
Mold Making	3.94	0.90
Flame Cutting	0.66	0.15
Mold Blaster	0.56	0.13
Aluminum Grinding Operation*	0.03	0.0068
Milling/Boring Operation*	0.39	0.089
Hand-Held Polishing Operation*	0.06	0.014
Total	57.23	13.07

*These are new PSD minor limits. No changes are being made to the existing PSD minor limits.

The new PSD minor limits were derived from the controlled PM emissions based on the control efficiencies of the new emission units' respective baghouses.

In the above table, the PM emission rate is calculated as follows:

PM emission rate (lb/hour)= controlled emissions after control (tons of PM / year) x 2000 lb / ton x 1 year / 8760 hours

The baghouses TD1, TD2, the Hydrotron wet dust collector, and the Empire Blast Cabinets' baghouses (Baghouse 03, Baghouse 04, Baghouse 05, Baghouse 06) shall be operated at all times the milling/boring operation, hand-held polishing operation, aluminum grinding operation, and the Empire Blast Cabinets are being performed. The operation of these controls limits the PM emissions from the entire source to below 100 tons per year. Therefore, the requirements of 326 IAC 2-2 do not apply.

The above limits ensure the PM emissions from the entire source are limited to less than 100 tons/yr. Therefore, the requirements of 326 IAC 2-2 are not applicable.

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 250 tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Federal Rule Applicability Determination

(a) New Source Performance Standards (NSPS)

(1) There are no New Source Performance Standards (40 CFR Part 60) and 326 IAC 12 included for this proposed revision.

(b) National Emission Standards for Hazardous Air Pollutants (NESHAP)

(1) The requirements of the National Emission Standards for Hazardous Air Pollutants for, 40 CFR 63, Subpart EEEEE, National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries, and 326 IAC 20-92-1(b), are not included for this proposed revision, since the source is not a major source for HAP.

(2) The requirements of the National Emission Standards for Hazardous Air Pollutants for, 40 CFR 63, Subpart ZZZZZ, National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources, are included since this iron foundry is located in an area source of hazardous air polluttant (HAP) emissions and as a result all units are affected.

The Permittee, which owns or operates stationary Iron and Steel Foundries Area Sources at an area source of HAP emissions shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZZ (included as Attachment A of this permit):

(a) 40 CFR 63.10880
(b) 40 CFR 63.10881
(c) 40 CFR 63.10885
(d) 40 CFR 63.10886
(e) 40 CFR 63.10890
(f) 40 CFR 63.10899
(g) 40 CFR 63.10905
(h) 40 CFR 63.10906

This is an existing requirement. The addition of the new Empire Blast Cabinets do not affect the source's compliance status with the Iron and Steel Foundry Area Source NESHAP (Subpart ZZZZZ).

(3) There are no new National Emission Standards for Hazardous Air Pollutants (40 CFR Part 63), 326 IAC 14 and 326 IAC 20 included for this proposed revision.

(c) Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

State Rule Applicability – Entire Source

(a) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.

(b) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
This modification to an existing PSD minor stationary source will not change the PSD minor status of the entire source, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the MSOP Revision Section above.

(c) 326 IAC 2-3 Emission Offest (Nonattainment New Source Review) - Lead
This source is located in South Hoyt Avenue, therefore this source is located in a nonattainment area for Lead.

This modification to an existing minor stationary source under 326 IAC 2-3 will not change the minor status of the entire source, because the potential to emit of Lead from the entire source will continue to be less than 100 tons per year. Therefore, pursuant to 326 IAC 2-13 requirements do not apply. See Appendix A for unlimited Lead PTE calculations.

(d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the new unit is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.

See PTE of the Entire Source After Issuance of the MSOP Revision.

(e) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

(e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

(f) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

Empire Blast Cabinets

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from each of the four (4) Empire blast cabinets shall not exceed 2.58 lbs per hour when operating at a process weight of 0.5 tons per hour (for each of the four (4) Empire blast cabinets).

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where: E = rate of emission in pounds per hour,
P = process weight in tons per hour.

This process will be able to comply with 326 IAC 6-3 because the potential to emit from the process is 0.14 lbs per hour after controls, which is less than the allowable emissions of 2.58 lbs per hour. The baghouses shall be in operation at all times the four (4) Empire blast cabinets are in operation, in order to comply with this limit.

Aluminum Grinding Operation

326 IAC 6-3-1 (Applicability)
Pursuant to 326 IAC 6-3-1 (Applicability), the particulate emissions from the Aluminum grinding operation is exempt from the requirements of 326 IAC 6-3-2, because potential particulate emissions are less than five hundred fifty-one thousands (0.551) pound per hour.

Milling/Boring Operation

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the milling/boring operation shall not exceed 0.69 lbs per hour when operating at a process weight of 0.07 tons per hour.

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where: E = rate of emission in pounds per hour,
P = process weight in tons per hour
(140 lbs/hr = 0.07 tons/hour).

This process will be able to comply with 326 IAC 6-3 because the potential to emit from the process is 0.089 lbs per hour after controls, which is less than the allowable emissions of 0.69 lbs per hour. The baghouse shall be in operation at all times the milling/boring operation is in operation, in order to comply with this limit.

CNC Machines

(a) 326 IAC 6-3-1 (Applicability)
Pursuant to 326 IAC 6-3-1 (Applicability), the particulate emissions from the CNC Machines are exempt from the requirements of 326 IAC 6-3-2, because the potential particulate emissions are less than five hundred fifty-one thousands (0.551) pound per hour.

(b) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The CNC machines are not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from the machines are less than twenty-five (25) tons per year.

Hand-Held Polishing Operation

326 IAC 6-3-1 (Applicability)

Pursuant to 326 IAC 6-3-1 (Applicability), the particulate emissions from the Hand-Held Polishing Operation is exempt from the requirements of 326 IAC 6-3-2, because potential particulate emissions are less than five hundred fifty-one thousands (0.551) pound per hour.

Natural Gas Combustion

The natural gas-fired combustion units are exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Compliance Determination, Monitoring and Testing Requirements

(a) The compliance determination and monitoring requirements applicable to this proposed revision are as follows:

Control	Parameter	Frequency	Range	Excursions and Exceedances
Four (4) Empire Blast Cabinets (Baghouse 03-Baghouse 06)	Water Pressure Drop	Daily	1.0 to 5.0 inches	Response Steps
Aluminum Grinding Operation (Hydroton wet dust collector)	Water Pressure Drop	Daily	4.0 to 8.0 inches	Response Steps
Milling/Boring Operation Baghouse (TD1)	Water Pressure Drop	Daily	1.0 to 5.0 inches	Response Steps
Hand-Held Polishing Operation Baghouse (TD2)	Water Pressure Drop	Daily	1.0 to 5.0 inches	Response Steps

These monitoring conditions are necessary because the baghouses for the Empire Blast Cabinets, Aluminum Grinding Operation, Milling/Boring Operation, and Hand-Held Polishing Operation must operate properly to ensure compliance 326 IAC 6-3 (Particulate Emissions Limitations for Manufacturing Processes).

(b) On July 24, 2015, Steve Friend of IDEM's Compliance Data Section determined that stack testing to determine the PM emission rate of the Empire Blast Cabinets is not required. The decision was based on the required control efficiency and PTE before control being low enough to not require stack testing.

Proposed Changes

The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

(1) Sections A.2, D.1, and E.1 has been revised to include descriptive information for the new and modified emission units. It also includes emission units that were not included in the last permit but were present.

(2) Sections D.1.1 and D.1.2 have been updated to show the PM limits for the added emissions units.

(3) Section D.1.4 and D.1.7 have been updated to include the new baghouses from the added emission units.

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

One (1) gray iron foundry, with a maximum metal melting rate of one (1) ton per hour and consisting of the following processes and control devices constructed in 1974 (unless otherwise noted):

...

(c) One (1) metal cleaning and finishing **shot blasting** process, **using steel shot,** with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent, identified as EP-03.

...

~~(g) One (1) initial grinding process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) dust collector (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

~~(h) One (1) initial blasting process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

(g) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 03, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

(h) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 04, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

~~(i) One (1) final grinding process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) dust collector (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

~~(j) One (1) final blasting process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

(i) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 05, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process.

(j) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 06, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process ...

(m) One (1) aluminum grinding operation, constructed in 2015, with a maximum amount of 0.48 pound of aluminum fines collected per day, using a Hydrotron wet dust collector for particulate control, exhausting outside.

(n) One (1) milling/boring operation, constructed in 2003, with a maximum throughput of one-hundred forty (140) pounds of metal castings per hour, consisting of five (5) machines, with a maximum amount of 0.80 pound of iron dust generated per hour, using a Torit Downflo dust collector, identified as TD1, for particulate control, exhausting outside.

(o) One (1) hand-held polishing operation, constructed in 2003, consisting of five (5) machines, with a maximum amount of 1.0 pound or iron dust generated per hour, using a Torit Downflo dust collector, identified as TD2, for particulate control, exhausting outside.

(p) Seven (7) CNC machines, with different construction dates, used for turning tools to cut features into metal parts, with a combined maximum amount of 1000 gallons of coolant per year, exhausting inside. The seven (7) CNC machines are summarized as follows:

Tank ID	Construction Year	Control
Four (4) CNC Machines	2003	No Control
One (1) CNC Machine	2010	Mist Collector
One (1) CNC Machine	2014	Mist Collector
One (1) CNC Machine	2015	Mist Collector

(q) Three (3) natural gas space heaters, constructed in 2003, each with a maximum rating of 0.15 MMBtu per hour, with no control, exhausting outside.

...

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

One (1) gray iron foundry, with a maximum metal melting rate of one (1) ton per hour and consisting of the following processes and control devices constructed in 1974 (unless otherwise noted):

...

(c) One (1) metal cleaning and finishing **shot blasting** process, **using steel shot,** with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent, identified as EP-03.

...

~~(g) One (1) initial grinding process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) dust collector (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

~~(h) One (1) initial blasting process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

(g) One (1) Empire blast cabinet for the initial cleaning processes, constructed in

2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 03, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

(h) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 04, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

~~(i) One (1) final grinding process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) dust collector (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

~~(j) One (1) final blasting process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

(i) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 05, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process.

(j) One (1) Empire blast cabinet for the final cleaning processes, constructed in2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 06, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process

...

(m) One (1) aluminum grinding operation, constructed in 2015, with a maximum amount of 0.48 pound of aluminum fines collected per day, using a Hydrotron wet dust collector for particulate control, exhausting outside.

(n) One (1) milling/boring operation, constructed in 2003, with a maximum throughput of one-hundred forty (140) pounds of metal castings per hour, consisting of five (5) machines, with a maximum amount of 0.80 pound of iron dust generated per hour, using a Torit Downflo dust collector, identified as TD1, for particulate control, exhausting outside.

(o) One (1) hand-held polishing operation, constructed in 2003, consisting of five (5) machines, with a maximum amount of 1.0 pound or iron dust generated per hour, using a Torit Downflo dust collector, identified as TD2, for particulate control, exhausting outside.

(p) Seven (7) CNC machines, with different construction dates, used for turning tools to cut features into metal parts, with a combined maximum amount of 1000 gallons of coolant per year, exhausting inside. The seven (7) CNC machines are summarized as follows:

Tank ID	Construction Year	Control
Four (4) CNC Machines	**2003**	**No Control**
One (1) CNC Machine	**2010**	**Mist Collector**
One (1) CNC Machine	**2014**	**Mist Collector**
One (1) CNC Machine	**2015**	**Mist Collector**

(q) Three (3) natural gas space heaters, constructed in 2003, each with a maximum rating of 0.15 MMBtu per hour, with no control, exhausting outside.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

D.1.1 Particulate Matter Limitations [326 IAC 2-2]

(a) ~~The Particulate Matter (PM) emissions from the following operations shall be limited as follows:~~

In order to render 326 IAC 2-2 not applicable, the Particulate Matter (PM) emissions from the following operations shall be limited as follows:

Process/Facility	PM (lb/hour)
Scrap and Charge Handling	0.60
(2) Electric Induction Furnaces	0.90
Pouring/ Casting	4.20
Castings Cooling	1.40
Castings Shakeout	3.20
~~Grinding/Blasting~~	~~0.58~~
Empire Blast Cabinet (Baghouse 03)	**0.14**
Empire Blast Cabinet (Baghouse 04)	**0.14**
Empire Blast Cabinet (Baghouse 05)	**0.14**
Empire Blast Cabinet (Baghouse 06)	**0.14**
Core Making	0.90
Metal Finishing	0.004
Mold Making	0.90
Mold Blaster	0.13
Aluminum Grinding Operation	**0.0068**
Milling/Boring Operation	**0.089**
Hand-Held Polishing Operation	**0.014**

...

D.1.2 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions shall be limited as follows:

Process	PM (lb/hour)
(2) Electric Induction Furnaces	4.1
Pouring/ Casting	20.4
Castings Cooling	20.4
Castings Shakeout	20.4

Process	PM (lb/hour)
~~Grinding/Blasting~~	~~6.52~~
Empire Blast Cabinet (Baghouse 03)	**2.58**
Empire Blast Cabinet (Baghouse 04)	**2.58**
Empire Blast Cabinet (Baghouse 05)	**2.58**
Empire Blast Cabinet (Baghouse 06)	**2.58**
Core Making	4.1
Metal Finishing	4.1
Mold Making	4.1
Sand Handling	41.0
Mold Blaster	3.38
Milling/Boring Operation	**0.69**

...

D.1.4 Particulate Control

(a) In order to comply with condition**s** D.1.1 and D.1.2, the baghouses Torit DF-T2-8**, TD1, TD2,** ~~Uniblast DC-100~~, **the Hydroton wet dust collector, the Empire Blast Cabinets' baghouses (Baghouse 03-Baghouse 06),** and the Mold Blaster baghouse for particulate control shall be in operation and control emissions from the sand handling operation, the **milling/boring operation, the hand-held polishing operation, the aluminum grinding operation, the Empire Blast Cabinets** ~~grinding and blasting operations~~, and the mold blaster at all times that the associated facilities are in operation.

...

D.1.7 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the Torit DF-T2-8, **TD1, TD2, the Hydroton wet dust collector, the Empire Blast Cabinets' baghouses (Baghouse 03-Baghouse 06),** and the Mold Blaster baghouse used in conjunction with the sand handling operation**, the milling/boring operation, the hand-held polishing operation, the aluminum grinding operation, the Empire Blast Cabinets** and mold blaster at least once per day when the sand handling**, the milling/boring operation, the hand-held polishing operation, the aluminum grinding operation, the Empire Blast Cabinets,** and mold blaster are in operation. **When for any one reading, the pressure drop across the dust collector is outside the normal range, the Permittee shall take reasonable response. The normal range for each baghouse is a pressure drop between the values listed in the table below unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.** A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

Emission Unit	**Control ID**	**Pressure Drop Range (inches of H_2O)**
One (1) Sand Handling Process	**Torit DF-T2-8**	**1.0-5.0**
One (1) Milling/Boring Operation	**TD1**	**1.0-5.0**
One (1) Hand-Held Polishing Operation	**TD2**	**1.0-5.0**

One (1) Aluminum Grinding Operation	**Hydroton Wet Dust Collector**	**4.0-8.0**
Four (4) Empire Blast Cabinets	**Baghouse 03-Baghouse 06**	**1.0-4.0**
One (1) Mold Blaster	**Dust Collector**	**0.5-5.0**

(b) The instruments used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

...

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-8-4(10)]:

One (1) gray iron foundry, with a maximum metal melting rate of one (1) ton per hour and consisting of the following processes and control devices constructed in 1974 (unless otherwise noted):

...

(c) One (1) metal cleaning and finishing **shot blasting** process, **using steel shot,** with a maximum metal throughput of one (1) ton per hour, with emissions exhausting to the general exhaust vent, identified as EP-03.

...

~~(g) One (1) initial grinding process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) dust collector (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

~~(h) One (1) initial blasting process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

(g) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 03, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

(h) One (1) Empire blast cabinet for the initial cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 04, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing initial grinding process.

~~(i) One (1) final grinding process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) dust collector (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

~~(j) One (1) final blasting process, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse (Uniblast DC-100) for control, with emissions exhausting to the general exhaust vent identified as EP-03.~~

(i) One (1) Empire blast cabinet for the final cleaning processes, constructed in

2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 05, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process.

(j) One (1) Empire blast cabinet for the final cleaning processes, constructed in 2012, with a maximum throughput of one-half (0.5) ton of metal per hour, using one (1) baghouse, identified as Baghouse 06, for particulate control, with emissions exhausting to the general exhaust vent identified as EP-03.

This Empire Blast Cabinet replaced the existing final grinding process

...

(m) One (1) aluminum grinding operation, constructed in 2015, with a maximum amount of 0.48 pound of aluminum fines collected per day, using a Hydrotron wet dust collector for particulate control, exhausting outside.

(n) One (1) milling/boring operation, constructed in 2003, with a maximum throughput of one-hundred forty (140) pounds of metal castings per hour, consisting of five (5) machines, with a maximum amount of 0.80 pound of iron dust generated per hour, using a Torit Downflo dust collector, identified as TD1, for particulate control, exhausting outside.

(o) One (1) hand-held polishing operation, constructed in 2003, consisting of five (5) machines, with a maximum amount of 1.0 pound or iron dust generated per hour, using a Torit Downflo dust collector, identified as TD2, for particulate control, exhausting outside.

(p) Seven (7) CNC machines, with different construction dates, used for turning tools to cut features into metal parts, with a combined maximum amount of 1000 gallons of coolant per year, exhausting inside. The seven (7) CNC machines are summarized as follows:

Tank ID	Construction Year	Control
Four (4) CNC Machines	2003	No Control
One (1) CNC Machine	2010	Mist Collector
One (1) CNC Machine	2014	Mist Collector
One (1) CNC Machine	2015	Mist Collector

(q) Three (3) natural gas space heaters, constructed in 2003, each with a maximum rating of 0.15 MMBtu per hour, with no control, exhausting outside.

The above units are considered affected facilities under NESHAP Subpart ZZZZZ, National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Additional Changes

IDEM, OAQ made additional revisions to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

(1) The table of contents was revised to show deleted sections and renumbered accordingly.

(2) Section A.1 of the permit and the quarterly reporting form has both been revised to remove all references to the source mailing address. IDEM, OAQ will continue to maintain records of the mailing address. The quarterly report also added a section to indicate the quarter

(3) For clarity, IDEM has changed references to the general conditions: "in accordance with Section B", in accordance with Section C", or other similar language to "Section C...contains the Permittee's obligations with regard to the records required by this condition."

(4) IDEM has decided that the phrases "no later than" and "not later than" are clearer than "within" in relation to the end of a timeline. Therefore all timelines have been switched to "no later than" or "not later than" except when the underlying rule states "within."

(5) IDEM has determined that rather than having a certification condition and various references throughout the permit as to whether a particular report, notice, or correspondence needs to include a certification, the specific conditions that require an affirmation of truth and completeness shall state so. The certification condition has been removed. All statements to whether a certification, pursuant to the former Section B - Certification, is needed or not have been removed. Section B - Credible Evidence and Section C - Asbestos Abatement Projects still require certification as the underlying rules also require certifications.

(6) IDEM has revised Section B - Permit Renewal paragraph (c) to state which rule establishes the authority to set a deadline for the Permittee to submit additional information.

(7) IDEM has added 326 IAC 5-1-1 to the exception clause of Section C - Opacity, since 326 IAC 5-1-1 does list exceptions.

(8) IDEM has revised Section C - Incineration to more closely reflect the two underlying rules.

(9) IDEM has revised the language of the Section C - Asbestos Abatement Projects to change the terminology "Accredited" to "Licensed" in order to match the rule.

(10) IDEM has removed the first paragraph of Section C - Performance Testing as due to the fact that specific testing conditions elsewhere in the permit will specify the timeline and procedures.

(11) IDEM has removed Section C - Monitoring Methods. The conditions that require the monitoring or testing, if required, state what methods shall be used.

(12) IDEM has revised Section C - Instrument Specifications to indicate that the analog instrument must be capable of measuring the parameters outside the normal range.

(13) IDEM has revised Section C - Response to Excursions or Exceedances. The introduction sentence has been added to clarify that it is only when an excursion or exceedance is detected that the requirements of this condition need to be followed. The word "excess" was added to the last sentence of paragraph (a) because the Permittee only has to minimize excess emissions. The middle of paragraph (b) has been deleted as it was duplicative of paragraph (a). The phrase "or are returning" was added to subparagraph (b)(2) as this is an acceptable response assuming the operation or emission unit does return to normal or its usual manner of operation. The phrase "within the indicator range, designated condition, or below the applicable emission limitation or

standard, as applicable" was replaced with "normal or usual manner of operation" because the first phrase is just a limited list of the second phrase. The recordkeeping required by paragraph (e) was changed to require only records of the response because the previously listed items are required to be recorded elsewhere in the permit.

(14) IDEM has revised Section C - Actions Related to Noncompliance Demonstrated by a Stack Test. The requirements to take response steps and minimize excess emissions have been removed because Section C - Response to Excursions or Exceedances already requires response steps related to exceedances and excess emissions minimization. The start of the timelines was switched from "the receipt of the test results" to "the date of the test." There was confusion if the "receipt" was by IDEM, the Permittee, or someone else. Since the start of the timelines has been moved up, the length of the timelines was increased. The new timelines require action within a comparable timeline; and the new timelines still ensure that the Permittee will return to compliance within a reasonable timeframe.

(15) The voice of paragraph (b) of Section C - General Record Keeping Requirements has been changed to clearly indicate that it is the Permittee that must follow the requirements of the paragraph.

(16) IDEM has decided to clarify Section D - Testing Requirements.

(17) IDEM has included the replacement of an instrument as an acceptable action in Section D - Parametric Monitoring

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E.1.1 General Provisions Relating to NESHAP [40 CFR Part 63, Subpart A] [326 IAC 20-1]
E.1.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Iron and Steel Foundries Area Sources [40 CFR Part 63, Subpart ZZZZZ]

Attachment A - 40 CFR Part 63, Subpart ZZZZZ

...

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary gray iron foundry.

Source Address:	3904 South Hoyt Avenue, Muncie, Indiana 47307
~~Mailing Address:~~	~~2905 North Hwy 61, Muscatine, Iowa 52671~~
General Source Phone Number:	(765) 282-1515
SIC Code:	3321, 3599
County Location:	Delaware
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

...

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch

Quarterly Report

Source Name:	Kendon
Source Address:	3904 South Hoyt Avenue, Muncie, Indiana 47307
~~Mailing Address:~~	~~2905 North Hwy 61, Muscatine, Iowa 52671~~
MSOP Permit No.:	M035-24861-00064
Source/Facility:	Sand handling operation
Parameter:	Maximum sand throughput
Limit:	87,600 tons per twelve (12) consecutive month period with compliance determined at the end of each month

QUARTER: YEAR:_____

...

B.7 Duty to Provide Information

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. ~~The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~ Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

...

~~B.8 Certification~~

~~(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.~~

~~(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.~~

~~(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).~~

...

B.~~9~~**8** Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

B.~~10~~**9** Preventive Maintenance Plan [326 IAC 1-6-3]

~~(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:~~

~~(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;~~

~~(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and~~

~~(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.~~

~~(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within no later than a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

~~(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.~~

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.~~11~~**10** Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M035-24861-00064 and issued pursuant to permitting programs approved into the state implementation plan have been either:

...

B.~~12~~**11** Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.~~13~~**12** Permit Renewal [326 IAC 2-6.1-7]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require **an affirmation that** the ~~certification~~**statements in the application are true and complete** by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least ninety (90) days prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified**, pursuant to 326 IAC 2-6.1-4(b),** in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.~~14~~**13** Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

(c) The Permittee shall notify the OAQ ~~within~~**no later than** thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.~~15~~**14** Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.~~16~~**15** Inspection and Entry
[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

...

B.~~17~~16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

...

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require ~~the certification~~ **an affirmation that the statements in the application are true and complete** by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

...

B.~~18~~**17** Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ ~~within~~ **no later than** thirty (30) calendar days of receipt of a billing.

...

B.~~19~~**18** Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

...

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in **326 IAC 5-1-1 (Applicability) and** 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

…

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator ~~or incinerate any waste or refuse~~ except as provided in 326 IAC 4-2 ~~and 326 IAC 9-1-2~~**or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit**.

...

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

...

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. ~~The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

...

(g) Indiana ~~Accredited~~**Licensed** Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana ~~Accredited~~**Licensed** Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

...

C.10 Performance Testing [326 IAC 3-6]

~~(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.~~

(a) For performance testing required by this permit, a ~~A~~ test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. ~~The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. ~~The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

...

~~C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]~~

~~Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.~~

C.~~14~~**13** Instrument Specifications [326 IAC 2-1.1-11]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. **The analog instrument shall be capable of measuring values outside of the normal range.**

...

C.~~15~~**14** Response to Excursions or Exceedances

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) ~~Upon detecting an excursion or exceedance, the~~**The** Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing **excess** emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction ~~and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions~~**. The response** may include, but ~~are~~**is** not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned **or are returning** to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to ~~within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.~~**normal or usual manner of operation.**

...

(e) The Permittee shall ~~maintain the following records:~~ **record reasonable response steps taken.**

~~(1) monitoring data;~~

~~(2) monitor performance data, if applicable; and~~

~~(3) corrective actions taken.~~

C.~~16~~**15** Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the ~~Permittee shall take appropriate response actions. The~~ Permittee shall submit a description of ~~these~~**its** response actions to IDEM, OAQ, ~~within thirty~~ **no later than** ~~(30) days of receipt of the test results~~**seventy-five (75) days after the date of the test**. ~~The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.~~

(b) A retest to demonstrate compliance shall be performed ~~within~~**no later than** one hundred ~~twenty (120) days of receipt of the original test results~~ **eighty (180) days after the date of the test**. Should the Permittee demonstrate to IDEM, OAQ that retesting in one

hundred ~~twenty (120)~~ **eighty (180)** days is not practicable, IDEM, OAQ may extend the retesting deadline~~.~~

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

~~The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

C.~~17~~**16** Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

...

C.~~18~~**17** General Record Keeping Requirements [326 IAC 2-6.1-5]

...

(b) Unless otherwise specified in this permit, **for** all record keeping requirements not already legally required**, the Permittee shall be allowed up to** ~~shall be implemented within~~ ninety (90) days **from the date** of permit issuance **or the date of initial start-up, whichever is later, to begin such record keeping**.

C.~~19~~**18** General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

...

(c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted ~~within~~ **no later than** thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

...

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

~~A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.~~
A Preventive Maintenance Plan is required for this facility. Section B - Preventive Maintenance Plan, of this permit, contains the Permittee's obligation with regard to this condition.

D.1.5 Testing Requirements [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing for the sand handling operation ~~within~~ **no later than** five (5) years of the last compliant stack test, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. ~~Testing shall be conducted in accordance with Section C- Performance Testing.~~ **Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.**

...

D.1.6 Visible Emissions Notations

...

(e) ~~If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take~~

~~response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.~~

If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.7 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the Torit DF-T2-8, **TD1, TD2, the Hydroton wet dust collector, the Empire Blast Cabinets' baghouses (Baghouse 03-Baghouse 06),** and the Mold Blaster baghouse~~s~~ used in conjunction with the sand handling operation**, the milling/boring operation, the Empire Blast Cabinets** and mold blaster at least once per day when the sand handling**, the milling/boring operation, the Empire Blast Cabinets,** and mold blaster are in operation. ~~When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 5.0 inches of water or a range established during the latest stack test., the Permittee shall take reasonable response steps in accordance with~~ **When for any one reading, the pressure drop across the dust collector is outside the normal range, the Permittee shall take reasonable response. The normal range for each baghouse is a pressure drop between the values listed in the table below unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.** Section C- Response to Excursions or Exceedances **contains the Permittee's obligation with regard to the reasonable response steps required by this condition**. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps ~~in accordance with Section C - Response to Excursions or Exceedances,~~ shall be considered a deviation from this permit.

Emission Unit	Control ID	Pressure Drop Range (inches of H_2O)
One (1) Sand Handling Process	**Torit DF-T2-8**	**1.0-5.0**
One (1) Milling/Boring Operation	**TD1**	**1.0-5.0**
One (1) Hand-Held Polishing Operation	**TD2**	**1.0-5.0**
One (1) Aluminum Grinding Operation	**Hydroton Wet Dust Collector**	**4.0-8.0**
Four (4) Empire Blast Cabinets	**Baghouse 03-Baghouse 06**	**1.0-4.0**
One (1) Mold Blaster	**Dust Collector**	**0.5-5.0**

(b) The instruments used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated **or replaced** at least once every six (6) months.

D.1.8 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, failed units and the associated process shall be shut down immediately until the failed unit have been repaired or replaced. ~~Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.~~ **Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Response to Excursions or**

Exceedances).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. ~~. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.~~ **Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Response to Excursions or Exceedances).**

Bag failure can be indicated by a significant drop in the baghouses' pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

...

D.1.9 Record Keeping Requirement

...

(d) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~ **Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.**

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted ~~to the address listed in Section C - General Reporting Requirements, of this permit,~~ using the reporting forms located at the end of this permit, or their equivalent, ~~within~~ **no later than** thirty (30) days after the end of the quarter being reported. **Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition.** The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on May 29, 2015.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed MSOP Significant Permit Revision No. 035-35887-00064. The staff recommends to the Commissioner that this MSOP Significant Permit Revision be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to John Chi at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5374 or toll free at 1-800-451-6027 extension 45374.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emissions Calculations
Emission Summary of Modification

Company Name: Kendon Corporation
Address City IN Zip: 3904 South Hoyt Avenue, Muncie, Indiana 47307
Permit Number: M035-35887-00064
Reviewer: John Chi

Unlimited Potential to Emit of Modification (tons/year)										
Process	**PM**	**PM10**	**PM2.5**	**SO2**	**NOx**	**VOC**	**CO**	**Total HAP**	**Worst Single HAP**	
Empire Blast Cabinet (Baghouse 03)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.41	1.15	Manganese
Empire Blast Cabinet (Baghouse 04)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.41	1.15	Manganese
Empire Blast Cabinet (Baghouse 05)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.41	1.15	Manganese
Empire Blast Cabinet (Baghouse 06)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.41	1.15	Manganese
Aluminum Grinding Operation	0.29	0.29	0.29	0.00	0.00	0.00	0.00	-	-	
Milling/Boring Operation	3.89	3.89	3.89	0.00	0.00	0.00	0.00	-	-	
Hand-Held Polishing Operation	0.61	0.61	0.61	0.00	0.00	0.00	0.00	-	-	
CNC Machines	Neg	Neg	Neg	0.00	0.00	0.48	0.00	-	-	
Natural Gas Combustion	0.00	0.01	0.01	0.00	0.19	0.01	0.16	0.004	0.004	Hexane
Paved Roads (Fugitive Emissions)	0.01	0.00	0.00	-	-	-	-	-	-	
Total	**153.73**	**19.70**	**19.70**	**0.00**	**0.19**	**0.49**	**0.16**	**5.64**	**4.62**	**Manganese**

Appendix A: Emission Calculations
Summary of Emissions

Company Name: Kendon Corporation
Address City IN Zip: 3904 South Hoyt Avenue, Muncie, Indiana 47307
Permit Number: M035-35887-00064
Reviewer: John Chi

UNCONTROLLED POTENTIAL TO EMIT (tons/yr)

Emission Units	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_x	VOC	CO	Single HAP		Total HAPs
Charge Handling	2.63	1.58	1.58	0.00	0.00	0.00	0.00	0.08	Manganese	0.10
Electric Induction Furnace	3.94	3.77	3.77	0.00	0.00	0.00	0.00	0.12	Manganese	0.15
Pouring/Casting	18.40	9.02	9.02	0.09	0.04	0.61	26.28	1.00	Manganese	3.19
Castings Cooling	6.13	6.13	6.13	0.00	0.00	0.00	0.00			
Main Castings Shakeout	14.02	9.81	9.81	0.00	0.00	5.26	0.00			
Empire Blast Cabinet (Baghouse 03)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.15	Manganese	1.41
Empire Blast Cabinet (Baghouse 04)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.15	Manganese	1.41
Empire Blast Cabinet (Baghouse 05)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.15	Manganese	1.41
Empire Blast Cabinet (Baghouse 06)	37.23	3.72	3.72	0.00	0.00	0.00	0.00	1.15	Manganese	1.41
Metal Finishing	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	--	0.00
Core Making	3.94	3.94	3.94	0.00	2.19	0.00	0.00	0.00	--	0.00
Mold Making	3.94	3.94	3.94	0.00	2.19	0.00	0.00	0.00	--	0.00
Mold Blaster	55.85	5.58	5.58	0.00	0.00	0.00	0.00	2.31	Manganese	2.82
Main Sand Handling	157.68	23.65	23.65	0.00	0.00	0.00	0.00	0.00	--	0.00
Aluminum Grinding Operation	0.29	0.29	0.29	0.00	0.00	0.00	0.00	0.00	--	0.00
Milling/Boring Operation	3.89	3.89	3.89	0.00	0.00	0.00	0.00	0.00	--	0.00
Hand-Held Polishing Operation	0.61	0.61	0.61	0.00	0.00	0.00	0.00	0.00	--	0.00
CNC Machines	Neg	Neg	Neg	0.00	0.00	0.48	0.00	0.00	--	0.00
Flame Cutting	0.64	0.64	0.64	0.00	0.00	0.00	0.00	0.00	--	0.00
Natural Gas Combustion	0.00	0.01	0.01	0.00	0.19	0.01	0.16	0.00	Hexane	0.00
Paved Roads (Fugitive Emissions)	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00
PLANT-WIDE TOTAL	**420.91**	**87.79**	**87.79**	**0.09**	**4.62**	**6.36**	**26.44**	**8.14**	**Manganese**	**11.90**

CONTROLLED EMISSIONS (tons/yr)

Emission Units	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_x	VOC	CO	Single HAP		Total HAPs
Charge Handling	2.63	1.58	1.58	0.00	0.00	0.00	0.00	0.08	Manganese	0.10
Electric Induction Furnace	3.94	3.77	3.77	0.00	0.00	0.00	0.00	0.12	Manganese	0.15
Pouring/Casting	18.40	9.02	9.02	0.09	0.04	0.61	26.28	0.57	Manganese	2.66
Castings Cooling	6.13	6.13	6.13	0.00	0.00	0.00	0.00			
Main Castings Shakeout	14.02	9.81	9.81	0.00	0.00	5.26	0.00			
Empire Blast Cabinet (Baghouse 03)	0.63	0.06	0.06	0.00	0.00	0.00	0.00	0.020	Manganese	0.024
Empire Blast Cabinet (Baghouse 04)	0.63	0.06	0.06	0.00	0.00	0.00	0.00	0.020	Manganese	0.024
Empire Blast Cabinet (Baghouse 05)	0.63	0.06	0.06	0.00	0.00	0.00	0.00	0.020	Manganese	0.024
Empire Blast Cabinet (Baghouse 06)	0.63	0.06	0.06	0.00	0.00	0.00	0.00	0.020	Manganese	0.024
Metal Finishing	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	--	0.00
Core Making	3.94	3.94	3.94	0.00	0.00	0.00	0.00	0.00	--	0.00
Mold Making	3.94	3.94	3.94	0.00	0.00	0.00	0.00	0.00	--	0.00
Mold Blaster	0.56	0.06	0.06	0.00	0.00	0.00	0.00	0.02	Manganese	0.03
Main Sand Handling	1.58	0.24	0.24	0.00	0.00	0.00	0.00	0.00	--	0.00
Aluminum Grinding Operation	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	--	0.00
Milling/Boring Operation	0.39	0.39	0.39	0.00	0.00	0.00	0.00	0.00	--	0.00
Hand-Held Polishing Operation	0.06	0.06	0.06	0.00	0.00	0.00	0.00	0.00	--	0.00
CNC Machines	Neg	Neg	Neg	0.00	0.00	0.48	0.00	0.00	--	0.00
Flame Cutting	0.64	0.64	0.64	0.00	0.00	0.00	0.00	0.00	--	0.00
Natural Gas Combustion	0.00	0.01	0.01	0.00	0.19	0.01	0.16	0.00	Hexane	0.00
Paved Roads (Fugitive Emissions)	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00
PLANT-WIDE TOTAL	**58.81**	**39.89**	**39.89**	**0.09**	**0.24**	**6.36**	**26.44**	**0.88**	**Manganese**	**3.04**

Appendix A: Potential Emission Calculations
Grey Iron Foundry Operations

Company Name: Kendon Corporation
Address: 3904 South Hoyt Avenue, Muncie, Indiana 47307
Permit Number: M035-35887-00064
Reviewer: John Chi

Foundry Calculations

Emission Factors (lbs/ton)										
Process	Control Device	SCC	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	Lead
Charge Handling	None	30400315	0.60	0.36	0.36	-	-	-	-	0.1
Electric Induction Furnace	None	30400303	0.90	0.86	0.86	-	-	-	-	-
Pouring/Casting	None	30400320	4.20	2.06	2.06	0.02	0.01	0.14	6.00	-
Castings Cooling	None	30400325	1.40	1.40	1.40	-	-	-		-
Main Castings Shakeout	Dust Collector	30400331	3.20	2.24	2.24	-	-	1.20		-
Empire Blast Cabinet (Baghouse 03)	Baghouse 03	30400340	17.00	1.70	1.70	-	-	-	-	-
Empire Blast Cabinet (Baghouse 04)	Baghouse 04	30400341	17.00	1.70	1.70	-	-	-	-	-
Empire Blast Cabinet (Baghouse 05)	Baghouse 05	30400342	17.00	1.70	1.70	-	-	-	-	-
Empire Blast Cabinet (Baghouse 06)	Baghouse 06	30400343	17.00	1.70	1.70	-	-	-	-	-
Metal Finishing	None	30400360	0.0045	0.0045	0.0045	-	-	-	-	-
Core Making	None	30400353	0.90	0.90	0.90	-	0.50	-	-	-
Mold Making	Mold Blaster Baghouse	30400353	0.90	0.90	0.90	-	0.50	-	-	-
Mold Blaster	Dust Collector	30400340	17.00	1.70	1.70	-	-	-	-	-
Main Sand Handling	Torit DF-T2-8	30400350	3.60	0.54	0.54	-	-	-	-	-

Emission Factors from EPA's FIRE version 6.25.
The August 11, 2006 Indiana Cast Metals Association memo contained the CO emission factor
The core/mold making processes do not use resins. There are no VOCs from these processes.

Uncontrolled Potential Emissions (tons/yr)										
Process	SCC	Maximum Throughput (tons/hr)	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	Lead
Charge Handling	30400315	1.0	2.63	1.58	1.58	0.00	0.00	0.00	0.00	0.44
Electric Induction Furnace	30400303	1.0	3.94	3.77	3.77	0.00	0.00	0.00	0.00	0.00
Pouring/Casting	30400320	1.0	18.40	9.02	9.02	0.09	0.04	0.61	26.28	0.00
Castings Cooling	30400325	1.0	6.13	6.13	6.13	0.00	0.00	0.00		0.00
Main Castings Shakeout	30400331	1.0	14.02	9.81	9.81	0.00	0.00	5.26		0.00
Empire Blast Cabinet (Baghouse 03)	30400340	0.5	37.23	3.72	3.72	0.00	0.00	0.00	0.00	0.00
Empire Blast Cabinet (Baghouse 04)	30400340	0.5	37.23	3.72	3.72	0.00	0.00	0.00	0.00	0.00
Empire Blast Cabinet (Baghouse 05)	30400340	0.5	37.23	3.72	3.72	0.00	0.00	0.00	0.00	0.00
Empire Blast Cabinet (Baghouse 06)	30400340	0.5	37.23	3.72	3.72	0.00	0.00	0.00	0.00	0.00
Metal Finishing	30400360	1.0	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00
Core Making	30400353	1.0	3.94	3.94	3.94	0.00	2.19	0.00	0.00	0.00
Mold Making	30400353	1.0	3.94	3.94	3.94	0.00	2.19	0.00	0.00	0.00
Mold Blaster	30400340	0.8	55.85	5.58	5.58	0.00	0.00	0.00	0.00	0.00
Main Sand Handling	30400350	10.0	157.68	23.65	23.65	0.00	0.00	0.00	0.00	0.00
Total			**415.46**	**82.34**	**82.34**	**0.09**	**4.42**	**5.87**	**26.28**	**0.44**

Controlled Potential Emissions (tons/yr)										
Pouring/Casting	SCC	Maximum Throughput (tons/hr)	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	Lead
Charge Handling	30400315	1.0	2.63	1.58	1.58	0.00	0.00	0.00	0.00	0.44
Electric Induction Furnace	30400303	1.0	3.94	3.77	3.77	0.00	0.00	0.00	0.00	0.00
Pouring/Casting	30400320	1.0	18.40	9.02	9.02	0.09	0.04	0.61	26.28	0.00
Castings Cooling	30400325	1.0	6.13	6.13	6.13	0.00	0.00	0.00		0.00
Main Castings Shakeout	30400331	1.0	14.02	9.81	9.81	0.00	0.00	5.26		0.00
Empire Blast Cabinet (Baghouse 03)	30400340	0.5	0.63	0.06	0.06	0.00	0.00	0.00	0.00	0.00
Empire Blast Cabinet (Baghouse 04)	30400340	0.5	0.63	0.06	0.06	0.00	0.00	0.00	0.00	0.00
Empire Blast Cabinet (Baghouse 05)	30400340	0.5	0.63	0.06	0.06	0.00	0.00	0.00	0.00	0.00
Empire Blast Cabinet (Baghouse 06)	30400340	0.5	0.63	0.06	0.06	0.00	0.00	0.00	0.00	0.00
Metal Finishing	30400360	1.0	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00
Core Making	30400353	1.0	3.94	3.94	3.94	0.00	0.00	0.00	0.00	0.00
Mold Making	30400353	1.0	3.94	3.94	3.94	0.00	0.00	0.00	0.00	0.00
Mold Blaster	30400340	0.8	0.56	0.06	0.06	0.00	0.00	0.00	0.00	0.00
Main Sand Handling	30400350	10.0	1.58	0.24	0.24	0.00	0.00	0.00	0.00	0.00
Total			**57.68**	**38.76**	**38.76**	**0.09**	**0.04**	**5.87**	**26.28**	**0.44**

Appendix A: Secondary Metal Production
Gray Iron Foundry
Pouring, Cooling and Shakeout HAP Emissions

Company Name: Kendon Corporation
Address: 3904 South Hoyt Avenue, Muncie, Indiana 47307
Permit Number: M035-35887-00064
Reviewer: John Chi

Organic HAPs Calculations

Organic HAPs (Combined for Pouring, Cooling and Shakeout)		
Maximum Throughput	1	ton/hr
	8760	tons/yr
Phenol	0.0718	0.31
Benzene	0.1643	0.72
Analine	0.0366	0.16
o-Cresol	0.0185	0.08
Naphthalene	0.0048	0.02
N,N - Dimethylaniline	0.0085	0.04
Toluene	0.0647	0.28
m,p -Cresol	0.0059	0.03
m, p -Xylene	0.0044	0.02
Xylene (Total)	0.0383	0.17
Acetaldehyde	0.0100	0.04
Ethylbenzene	0.0070	0.03
Formaldehyde	0.0011	0.00
Hexane	0.0046	0.02
Other HAPs	0.0070	0.03
Total Organic HAPs	0.4475	1.96

Methodology

Potential to Emit HAP = Maximum Throughput (tons/hr) *8760 hrs/yr * EF (lb/ton) * 1 ton/2000 lbs
The organic HAP emission factors are from Reference tests Recommended in
"Organic Hazardous Air Pollutant Emission Factors for Iron Foundries", prepared
by the Air Quality Committee of the American Foundry Society, August 16, 2005.

Appendix A: Emission Calculations
HAP Emissions from Foundry Operations

Company Name: Kendon Corporation
Address: 3904 South Hoyt Avenue, Muncie, Indiana 47307
Permit Number: M035-35887-00064
Reviewer: John Chi

Process	Maximum Throughput (tons/hr)	PM Emission Factor lb/ton	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Control Device	Control Efficiency (%)
Charge Handling SCC# 3-04-003-15 AP-42 Ch. 12.10	1.0	0.60	Chromium	0.00023	0.001	0.001	N/A	
			Nickel	0.00040	0.002	0.002		
			Arsenic	0.00008	0.000	0.000		
			Lead	0.00231	0.010	0.010		
			Manganese	0.01860	0.081	0.081		
			Antimony	0.00111	0.005	0.005		
			Total	**0.02273**	**0.100**	**0.100**		
Electric Induction Furnaces SCC# 3-04-003-03 AP-42 Ch. 12.10	1.0	0.90	Chromium	0.00034	0.001	0.001	N/A	
			Nickel	0.00060	0.003	0.003		
			Arsenic	0.00012	0.001	0.001		
			Lead	0.00347	0.015	0.015		
			Manganese	0.02790	0.122	0.122		
			Antimony	0.00167	0.007	0.007		
			Total	**0.03409**	**0.149**	**0.149**		
Pouring/Casting Cooling SCC# 3-04-003-18 AP-42 Ch. 12.10	1.0	4.20	Chromium	0.00160	0.007	0.007	N/A	
			Nickel	0.00281	0.012	0.012		
			Arsenic	0.00055	0.002	0.002		
			Lead	0.01617	0.071	0.071		
			Manganese	0.13020	0.570	0.570		
			Antimony	0.00777	0.034	0.034		
			Total	**0.15910**	**0.697**	**0.697**		
Casting Shakeout SCC# 3-04-003-31 AP-42 Ch. 12.10	1.0	3.20	Chromium	0.00122	0.005	0.000	Baghouse	99.0%
			Nickel	0.00214	0.009	0.000		
			Arsenic	0.00042	0.002	0.000		
			Lead	0.01232	0.054	0.001		
			Manganese	0.09920	0.434	0.004		
			Antimony	0.00592	0.026	0.000		
			Total	**0.12122**	**0.531**	**0.005**		
Mold Blaster SCC# 3-04-003-40 AP-42 Ch. 12.10	1.0	17.00	Chromium	0.00646	0.028	0.000	Baghouse	99.0%
			Nickel	0.01139	0.050	0.000		
			Arsenic	0.00221	0.010	0.000		
			Lead	0.06545	0.287	0.003		
			Manganese	0.52700	2.308	0.023		
			Antimony	0.03145	0.138	0.001		
			Total	**0.64396**	**2.821**	**0.028**		
Empire Blast Cabinets SCC# 3-04-003-40 AP-42 Ch. 12.10**	0.5	17.00	Chromium	0.00646	0.014	0.000	Baghouse	98.3%
			Nickel	0.01139	0.025	0.000		
			Arsenic	0.00221	0.005	0.000		
			Lead	0.06545	0.143	0.002		
			Manganese	0.52700	1.154	0.020		
			Antimony	0.03145	0.069	0.001		
			Total	**0.64396**	**1.410**	**0.024**		

* HAP emission factors for PM that is HAP based on information from SPECIATE, v 3.1.
Lead emission factors for electric induction furnaces are from US EPA's AP-42.

**Indicates each of the four (4) Empire Blast Cabinets (Baghouse 03-06)
since the maximum throughput and PM emission factor for each are constant.

Metal HAPs Calculations Cont'd

USEPA Speciate v 3.1 Data	
Metal	Gen. Foundry
Chromium	0.038%
Nickel	0.067%
Arsenic	0.013%
Lead	0.385%
Manganese	3.100%
Antimony	0.185%

	Ebc	Eac	
Chromium	0.057	0.010	tons/yr
Nickel	0.101	0.018	tons/yr
Arsenic	0.020	0.003	tons/yr
Lead	0.580	0.102	tons/yr
Manganese	4.671	0.821	tons/yr
Antimony	0.279	0.049	tons/yr
Total	**5.707**	**1.003**	tons/yr

Methodology

HAP Ef (lb/ton) = FIRE PM Ef x Gen. Foundry HAP (%)
Ebc (tons/yr) = Max. Throughput (tons/hr) x HAP Ef (lbs/ton) x 8760 hrs/yr x 1 ton/2000 lbs
Eac (tons/yr) = Ebc (tons/yr) x (1 - control efficiency)

Appendix A: Emission Calculations
PM and HAP Emissions
From One Oxyacetylene Station

Company Name: Kendon Corporation
Address: 3904 South Hoyt Avenue, Muncie, Indiana 47307
Registration: M035-35887-00064
Reviewer: John Chi

FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				Total HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxypropylene	1	0.5	30	0.1622	0.0005	0.0001	0.0003	0.146	4.50E-04	9.00E-05	2.70E-04	0.0008

EMISSION TOTALS	PM = PM10	Mn	Ni	Cr	Total HAPS
Potential to Emit (lbs/hr)	0.146	4.50E-04	9.00E-05	2.70E-04	0.0008
Potential to Emit (lbs/day)	3.50	1.08E-02	2.16E-03	6.48E-03	0.019
Potential to Emit (tons/year)	**0.64**	**1.97E-03**	**3.94E-04**	**1.18E-03**	**0.004**

METHODOLOGY

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A: Emission Calculations
Natural Gas Combustion Only
MMBtu/hr <100

Company Name: Kendon Corporation
Address: 3904 South Hoyt Avenue, Muncie, Indiana 47307
Registration: M035-35887-00064
Reviewer: John Chi

Maximum Heat Input Capacity (MMBtu/hr)	HHV MMBtu / MMscf	Potential Throughput MMCF/yr
0.450	1020	3.9

	Pollutant						
	PM*	PM_{10}*	direct $PM_{2.5}$*	SO_2	NO_x	VOC	CO
Emission Factor (lb/MMcf)	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emissions (tons/yr)	0.00	0.01	0.01	0.00	0.19	0.01	0.16

* PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM_{10} combined.
$PM_{2.5}$ emission factor is filterable and condensable $PM_{2.5}$ combined.
** Emission factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMcf = 1,000,000 Cubic Feet of Gas
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Potential Throughput (MMcf/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr ÷ HHV (MMBtu/MMscf)
Potential Emissions (tons/yr) = Potential Throughput (MMcf/yr) x Emission Factor (lb/MMcf) ÷ 2,000 lb/ton

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor (lb/MMcf)	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emissions (tons/yr)	4.058E-06	2.319E-06	1.449E-04	3.478E-03	6.570E-06

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor (lb/MMcf)	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emissions (tons/yr)	9.662E-07	2.126E-06	2.705E-06	7.343E-07	4.058E-06

TOTAL HAPs **3.647E-03**

Methodology is the same as page 10.
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations
Metal Finishing
MMBtu/hr <100

Company Name: Kendon Corporation
Address: 3904 South Hoyt Avenue, Muncie, Indiana 47307
Registration: M035-35887-00064
Reviewer: John Chi

Aluminum Grinding Operation:

Information Provided by the Source		
Amount collected: 0.48 lb	0.48	lb
Hours collected: 8 hour	8	hr
Wet Collector Control Eff (estimated):	90%	

Uncontrolled PM/PM10/PM2.5 emissions = Amount of dust collected (lbs/collection) x (1 collection/No. of hours of operation) / Control Efficiency
= 0.07 pounds per hour (lb/hr)

Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr) = Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr) x 8760 hr/yr x 1 ton/2,000 lbs
= 0.29 tons/yr

Controlled PM/PM10/PM2.5 Emissions (tons/yr) = Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr) x (1-Control Efficiency)
= 0.03 tons/yr

Milling/Boring Operation:

Information Provided by the Source		
Amount collected: 0.8 lb	0.8	lb
Hours collected: 1 hour	1	hr
Dust Collector Control Eff (estimated):	90%	

Uncontrolled PM/PM10/PM2.5 emissions = Amount of dust collected (lbs/collection) x (1 collection/No. of hours of operation) / Control Efficiency
= 0.89 pounds per hour (lb/hr)

Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr) = Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr) x 8760 hr/yr x 1 ton/2,000 lbs
= 3.89 tons/yr

Controlled PM/PM10/PM2.5 Emissions (tons/yr) = Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr) x (1-Control Efficiency)
= 0.39 tons/yr

Hand-Held Polishing Operation:

Information Provided by the Source		
Amount collected: 1 lb	1	lb
Hours collected: 8 hour	8	hr
Dust Collector Control Eff (estimated):	90%	

Uncontrolled PM/PM10/PM2.5 emissions = Amount of dust collected (lbs/collection) x (1 collection/No. of hours of operation) / Control Efficiency
= 0.14 pounds per hour (lb/hr)

Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr) = Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr) x 8760 hr/yr x 1 ton/2,000 lbs
= 0.61 tons/yr

Controlled PM/PM10/PM2.5 Emissions (tons/yr) = Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr) x (1-Control Efficiency)
= 0.06 tons/yr

Appendix A: Emissions Calculations
VOC Emissions
CNC Machines

Company Name: Kendon
Address: 3904 South Hoyt Avenue, Muncie, Indiana 47307
Permit No.: M035-35887-00064
Reviewer: John Chi

VOC Emissions from Seven CNC Machines

Emission Unit Washer Identification	Solvent Name	Solvent Relative Density	Solvent Density (lb/gal)	Annual Solvent Throughput (gal)	Weight Percent VOC	Annual Emission Rate TPY
CNC Machines	Ecocool S 741	0.955	7.9695	1,000.00	12.03%	0.48

Total Annual Emission Rate 0.48

METHODOLOGY
Annual Emission Rate = ∑ CNC Machines[(Solvent Density (lb/gal) x Annual Throughput (gal) x Weight % VOC)] / 2,000 (lb/ton)
Material does not contain hazardous air pollutants
TPY - Tons per Year
1 kg/m^3= 0.008345 lb/gal

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: Kendon Corporation
Source Address: 3904 South Hoyt Avenue, Muncie, Indiana 47307
Permit Number: M035-35887-00064
Reviewer: John Chi

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011)

Vehicle Informtation (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	1.0	1.0	1.0	10.0	10.0	210	0.040	0.0	14.5
Vehicle (leaving plant) (one-way trip)	1.0	1.0	1.0	10.0	10.0	210	0.040	0.0	14.5
		Totals	**2.0**		**20.0**			**0.1**	**29.0**

Average Vehicle Weight Per Trip = 10.0 tons/trip
Average Miles Per Trip = 0.04 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	10.0	10.0	10.0	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m^2 = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)] (Equation 2 from AP-42 13.2.1)
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.911	0.182	0.0447	lb/mile
Mitigated Emission Factor, Eext =	0.833	0.167	0.0409	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Vehicle (leaving plant) (one-way trip)	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Totals	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] * [1 - Dust Control Efficiency]

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emil

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

Notice of Public Comment

August 5, 2015
Kendon
035-35887-00064

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
PN AAA Cover.dot 6/13/13

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August 5, 2015

Mr. Dick Eilas
Kendon
3904 S Hoyt Avenue
Muncie, IN 47302

Re: Public Notice
Kendon
Permit Level: Minor Source Operating Permit Renewal
Permit Number: 035-35887-00064

Dear Mr. Eilas:

Enclosed is a copy of your draft Minor Source Operating Permit Renewal, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Muncie Star Press in Muncie, Indiana publish the abbreviated version of the public notice no later than August 12, 2015. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Carnegie Library, 301 East Jackson Street in Muncie, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to John Chi, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 4-5374 or dial (317) 234-5374

Sincerely,

Greg Hotopp

Greg Hotopp
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover lette-2014. Dot4/10/14

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August 5, 2015

To: Carnegie Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

Applicant Name: Kendon
Permit Number: 141-35887-00064

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library.dot 6/13/2013

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Governor

Thomas W. Easterly
Commissioner

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

August 5, 2015

Muncie Star Press
PO Box 2408
Muncie, IN 47307

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Kendon, Delaware County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than August 12, 2015.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Greg Hotopp at 800-451-6027 and ask for extension 4-3493 or dial 317-234-3493.

Sincerely,

Greg Hotopp

Greg Hotopp
Permit Branch
Office of Air Quality

Permit Level: Minor Source Operating Permit Renewal
Permit Number: 035-35887-00064

Enclosure

PN Newspaper.dot 6/13/2013

Mail Code 61-53

IDEM Staff	GHOTOPP 8/5/2015 Kendon 035-35887-00064 Draft		
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Dick Elias Kendon 3904 S Hoyt Ave Muncie IN 47302 (Source CAATS)									
2		Josh Canada Plant Mgr Kendon 3904 S Hoyt Ave Muncie IN 47302 *(RO CAATS)*									
3		Muncie City Council and Mayors Office 300 N. High St Muncie IN 47305 *(Local Official)*									
4		Muncie Center Twp Public Library 301 E Jackson St Muncie IN 47305-1878 *(Library)*									
5		Delaware County Health Department 200 W Main St, County Bldg Room 207-309 Muncie IN 47305-2874 *(Health Department)*									
6		Delaware County Commissioners 100 West Main Street Muncie IN 47305 *(Local Official)*									
7		Mr. Alic Bent August Mack Environmental, Inc. 1302 N Meridian St, Suite 300 Indianapolis IN 46202 *(Consultant)*									
8											
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