



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant
DATE: July 31, 2006
RE: Hoosier Magnetics, Inc. / 27-16278-00009
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot 03/23/06



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Minor Source Operating Permit OFFICE OF AIR QUALITY

**Hoosier Magnetics, Inc.
2001 Cosby Road
Washington, Indiana 47501**

(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.

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.

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.

Operation Permit No.: 027-16278-00009	
Issued by: Origin signed by Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: July 31, 2006 Expiration Date: July 31, 2011

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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 ferrite powder manufacturing source.

Authorized Individual:	President
Source Address:	2001 Cosby Road, Washington, IN 47501
Mailing Address:	2001 Cosby Road, Washington, IN 47501
General Source Phone Number:	(812) 254-6856
SIC Code:	3299
County Location:	Daviess
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) One (1) natural gas-fired rotary kiln, which is a batch process, identified as Kiln 1, constructed in 1971, exhausting to Stack ST-1, capacity: 483 pounds of dry solids per hour and an operating rate of no more than 5,112 hours per year (3.5 out of every 6 days), and 12.5 million British thermal units per hour.
- (b) One (1) natural gas-fired rotary kiln, identified as Kiln 2, constructed in 1982, exhausting to Stack ST-2, capacity: 400 pounds of dry solids per hour and 2.62 million British thermal units per hour.
- (c) Two (2) raw material storage silos, constructed in 1991, filled via pneumatic transfer, utilizing an enclosed bin vent dust collector to maintain the air pressure required to operate the unit, output capacity: 883 pounds of dry solids per hour.
- (d) One (1) natural gas-fired hot water heater, identified as State, installed in 1990, exhausting to Stack ST-6, capacity: 0.075 million British thermal units per hour.
- (e) One (1) natural gas indirect-fired rotary dryer, identified as RD-1, constructed in 1993, exhausting to Stack ST-4, capacity: 3.6 million British thermal units per hour.
- (f) One (1) natural gas-fired furnace, identified as American Standard THD100A960B1, installed in 1979, exhausting to Stack ST-5, capacity: 0.20 million British thermal units per hour.
- (g) One (1) natural gas-fired boiler, identified as B-1, constructed in 2000, exhausting to Stack ST-3, capacity: 0.84 million British thermal units per hour.
- (h) One (1) small parts cleaner, constructed in 1989, with a maximum throughput of five (5) gallons per year.

- (i) One (1) acid reactor, identified as AR-1, reconstructed in 1998, equipped with a Colby Fume Exhauster and exhausting through Vent ST-8, capacity: 3 batches per day and 2,978 pounds of HCl per batch.
- (j) One (1) bulk hydrochloric acid (HCl) storage tank, identified as AT-1 and exhausting through Vent ST-7, capacity: 14,571 gallons.
- (k) One (1) LPG tank, constructed in 2002, capacity: approximately 1,000 gallons.
- (l) One (1) Simpactor grinder, constructed in 1996, for wet grinding, capacity: 883 pounds of dry solids per hour.
- (m) One (1) wet milling station, constructed in 1996, capacity: 883 pounds of dry solids per hour.
- (n) One (1) blender, constructed in 1985, capacity: 400 pounds of dry solids per hour.
- (o) One (1) pulverizer, constructed in 1975, utilizing an enclosed bin vent dust collector to maintain the air pressure required to operate the unit, capacity: 400 pounds of dry solids per hour.
- (p) One (1) mega-mill, constructed in 1998, utilizing an enclosed bin vent dust collector to maintain the air pressure required to operate the unit, capacity: 883 pounds of dry solids per hour.

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, 027-16278-00009, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-3-3. 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. 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) 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 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 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:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue,
Indianapolis, 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.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, 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 Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) 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 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.

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

- (a) All terms and conditions of permits established prior to 027-16278-00009 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.12 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 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 the certification 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
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 in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.14 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
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 thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

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

B.16 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][IC13-17-3-2][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 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.17 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification 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.18 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within 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.19 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 5-1-3 (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 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.5 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.6 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
Asbestos Section, Office of Air Quality
100 North Senate Avenue
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).

- (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 Accredited 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 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.7 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 test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
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) 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.8 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.9 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.10 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.

Corrective Actions and Response Steps

C.11 Response to Excursions or Exceedances

- (a) Upon detecting an excursion or exceedance, 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 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 may include, but are not limited to, the following:
 - (1) initial inspection and evaluation
 - (2) recording that operations returned 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.
- (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;
 - (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 maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.12 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 response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. 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 one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) 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).

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

C.13 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.14 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, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.15 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 Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit 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.

- (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) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. 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.
- (e) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ . The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Kilns

- (a) One (1) natural gas-fired rotary kiln, which is a batch process, identified as Kiln 1, constructed in 1971, exhausting to Stack ST-1, capacity: 483 pounds of dry solids per hour and an operating rate of no more than 5,112 hours per year (3.5 out of every 6 days), and 12.5 million British thermal units per hour.
- (b) One (1) natural gas-fired rotary kiln, identified as Kiln 2, constructed in 1982, exhausting to Stack ST-2, capacity: 400 pounds of dry solids per hour and 2.62 million British thermal units per hour.

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

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the one (1) natural gas-fired rotary kiln, identified as Kiln 1, shall not exceed 2.40 pounds per hour, when operating at a process weight rate of 900 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the one (1) natural gas-fired rotary kiln, identified as Kiln 2, shall not exceed 2.22 pounds per hour, when operating at a process weight rate of 800 pounds per hour.

The pounds per hour limitations were calculated with the following equation:

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

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.2 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.

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-1.1-11]

Within ninety (90) days after issuance of this permit, in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing for the two (2) kilns, identified as Kiln 1 and Kiln 2, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Visible Emissions Notations

- (a) Visible emission notations of the two (2) rotary kilns stack exhausts (ST-1 and ST-2) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. 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 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.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.5 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain daily records of visible emission notations of the two (2) rotary kilns stack exhausts (ST-1 and ST-2).
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Additional Operations

- (c) Two (2) raw material storage silos, constructed in 1991, filled via pneumatic transfer, utilizing an enclosed bin vent dust collector to maintain the air pressure required to operate the unit, output capacity: 883 pounds of dry solids per hour.
- (d) One (1) natural gas-fired hot water heater, identified as State, installed in 1990, exhausting to Stack ST-6, capacity: 0.075 million British thermal units per hour.
- (e) One (1) natural gas indirect-fired rotary dryer, identified as RD-1, constructed in 1993, exhausting to Stack ST-4, capacity: 3.6 million British thermal units per hour.
- (f) One (1) natural gas-fired furnace, identified as American Standard THD100A960B1, installed in 1979, exhausting to Stack ST-5, capacity: 0.20 million British thermal units per hour.
- (g) One (1) natural gas-fired boiler, identified as B-1, constructed in 2000, exhausting to Stack ST-3, capacity: 0.84 million British thermal units per hour.
- (h) One (1) small parts cleaner, constructed in 1989, with a maximum throughput of five (5) gallons per year.
- (i) One (1) acid reactor, identified as AR-1, reconstructed in 1998, equipped with a Colby Fume Exhauster and exhausting through Vent ST-8, capacity: 3 batches per day and 2,978 pounds of HCl per batch.
- (j) One (1) bulk hydrochloric acid (HCl) storage tank, identified as AT-1 and exhausting through Vent ST-7, capacity: 14,571 gallons.
- (k) One (1) LPG tank, constructed in 2002, capacity: approximately 1,000 gallons.
- (l) One (1) Simpactor grinder, constructed in 1996, for wet grinding, capacity: 883 pounds of dry solids per hour.
- (m) One (1) wet milling station, constructed in 1996, capacity: 883 pounds of dry solids per hour.
- (n) One (1) blender, constructed in 1985, capacity: 400 pounds of dry solids per hour.
- (o) One (1) pulverizer, constructed in 1975, utilizing an enclosed bin vent dust collector to maintain the air pressure required to operate the unit, capacity: 400 pounds of dry solids per hour.
- (p) One (1) mega-mill, constructed in 1998, utilizing an enclosed bin vent dust collector to maintain the air pressure required to operate the unit, capacity: 883 pounds of dry solids per hour.

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

Emission Limitations and Standards

D.2.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) the PM emissions from the 0.84 million British thermal units per hour heat input boiler, identified as B-1, shall be limited to 0.6 pound per million British thermal units heat input.

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE 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:	Hoosier Magnetics, Inc.
Address:	2001 Cosby Road
City:	Washington
Phone #:	(812) 254-6856
MSOP #:	027-16278-00009

I hereby certify that Hoosier Magnetics, Inc. is still in operation.
 no longer in operation.

I hereby certify that Hoosier Magnetics, Inc. is in compliance with the requirements of MSOP 027-16278-00009.
 not in compliance with the requirements of MSOP 027-16278-00009.

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:

**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**

**Addendum to the
Technical Support Document for a Minor Source Operating Permit**

Source Name:	Hoosier Magnetics, Inc.
Source Location:	2001 Cosby Road, Washington, IN 47501
County:	Daviess
Construction Permit No.:	MSOP 027-16278-00009
SIC Code:	3299
Permit Reviewer:	CarrieAnn Paukowits

On June 16, 2006, the Office of Air Quality (OAQ) had a notice published in the Washington Times Herald, Washington, Indiana, stating that Hoosier Magnetics, Inc. had applied for a permit to operate a ferrite powder manufacturing source. The notice also stated that OAQ proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAQ has decided to make the following change to the permit. The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

Change 1:

Condition D.1.3 in the proposed permit requires PM and PM₁₀ testing. Condition D.1.1 limits PM emissions, but there is no limit for PM₁₀ emissions. Therefore, Condition D.1.3 has been revised as follows:

D.1.3 Testing Requirements [326 IAC 2-1.1-11]

Within ninety (90) days after issuance of this permit, in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM ~~and PM₁₀~~ testing for the two (2) kilns, identified as Kiln 1 and Kiln 2, utilizing methods as approved by the Commissioner. ~~PM₁₀ includes filterable and condensable PM₁₀.~~ Testing shall be conducted in accordance with Section C - Performance Testing.

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name:	Hoosier Magnetics, Inc.
Source Location:	2001 Cosby Road, Washington, IN 47501
County:	Daviess
SIC Code:	3299
Operation Permit No.:	MSOP 027-16278-00009
Permit Reviewer:	CarrieAnn Paukowits

The Office of Air Quality (OAQ) has reviewed an application from Hoosier Magnetics, Inc. relating to the operation of a ferrite powder manufacturing source. The Permittee did not permit its source in a timely manner (by September 13, 2000).

Previously Permitted Emission Units and Pollution Control Equipment

The source consists of the following previously permitted emission units and pollution control devices:

- (a) One (1) natural gas-fired rotary kiln, which is a batch process, identified as Kiln 1, constructed in 1971, exhausting to Stack ST-1, capacity: 483 pounds of dry solids per hour and an operating rate of no more than 5,112 hours per year (3.5 out of every 6 days), and 12.5 million British thermal units per hour.
- (b) One (1) natural gas-fired rotary kiln, identified as Kiln 2, constructed in 1982, exhausting to Stack ST-2, capacity: 400 pounds of dry solids per hour and 2.62 million British thermal units per hour.
- (c) Two (2) raw material storage silos, constructed in 1991, filled via pneumatic transfer, utilizing an enclosed bin vent dust collector to maintain the air pressure required to operate the unit, output capacity: 883 pounds of dry solids per hour.
- (d) One (1) natural gas-fired hot water heater, identified as State, installed in 1990, exhausting to Stack ST-6, capacity: 0.075 million British thermal units per hour.
- (e) One (1) natural gas indirect-fired rotary dryer, identified as RD-1, constructed in 1993, exhausting to Stack ST-4, capacity: 3.6 million British thermal units per hour.
- (f) One (1) natural gas-fired furnace, identified as American Standard THD100A960B1, installed in 1979, exhausting to Stack ST-5, capacity: 0.20 million British thermal units per hour.

Unpermitted Emission Units and Pollution Control Equipment not Requiring Construction Approval

The source also consists of the following unpermitted facilities/units. Individually, these facilities did not require an approval:

- (g) One (1) natural gas-fired boiler, identified as B-1, constructed in 2000, exhausting to Stack ST-3, capacity: 0.84 million British thermal units per hour.
- (h) One (1) small parts cleaner, constructed in 1989, with a maximum throughput of five (5) gallons per year.

- (i) One (1) acid reactor, identified as AR-1, reconstructed in 1998, equipped with a Colby Fume Exhauster and exhausting through Vent ST-8, capacity: 3 batches per day and 2,978 pounds of HCl per batch.
- (j) One (1) bulk hydrochloric acid (HCl) storage tank, identified as AT-1 and exhausting through Vent ST-7, capacity: 14,571 gallons.
- (k) One (1) LPG tank, constructed in 2002, capacity: approximately 1,000 gallons.
- (l) One (1) Simpactor grinder, constructed in 1996, for wet grinding, capacity: 883 pounds of dry solids per hour.
- (m) One (1) wet milling station, constructed in 1996, capacity: 883 pounds of dry solids per hour.
- (n) One (1) blender, constructed in 1985, capacity: 400 pounds of dry solids per hour.
- (o) One (1) pulverizer, constructed in 1975, utilizing an enclosed bin vent dust collector to maintain the air pressure required to operate the unit, capacity: 400 pounds of dry solids per hour.
- (p) One (1) mega-mill, constructed in 1998, utilizing an enclosed bin vent dust collector to maintain the air pressure required to operate the unit, capacity: 883 pounds of dry solids per hour.

New Emission Units and Pollution Control Equipment

There are no proposed emission units during this review process.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

Registration CP 027-3450-00009, issued on March 31, 1994

All terms and conditions from the previous approval were either incorporated as originally stated, revised or deleted by this MSOP. The following terms and conditions have been deleted:

Registration CP 027-3450-00009, issued on March 31, 1994, only paragraph:

Any change or modification which may increase the potential emissions to 25 tons per year or more of particulate matter from the equipment covered in this letter must be approved by the Office of Air Management before such change may occur.

Reason not incorporated:

The potential emissions from the facilities in the registration letter are greater than 25 tons per year. Therefore, this MSOP is required.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the enclosed bin vent dust collectors on the silos, pulverizer and mega-mill be considered as an integral part of those processes:

- (a) The silos, pulverizer and mega-mill cannot operate without the enclosed bin vent dust collectors, because the enclosed bin vent dust collectors are required to pneumatically move the materials.
- (b) The enclosed bin vent dust collectors serve a primary purpose other than pollution control. The primary purpose of the enclosed bin vent dust collectors is to pneumatically move the materials.
- (c) The enclosed and filtered air is retained within the respective units.

IDEM, OAQ has evaluated the justifications and agreed that the enclosed bin vent dust collectors will be considered as an integral part of the silos, pulverizer and mega-mills. Therefore, the permitting level will be determined using the potential to emit after the dust collectors, which is negligible since they are enclosed.

Enforcement Issue

- (a) IDEM is aware that the source did not apply for a MSOP in a timely manner. IDEM is reviewing this matter and will take appropriate action.
- (b) IDEM is aware that the May 1997 stack tests indicated that Kilns 1 and 2 are not in compliance with the following emission limitations:

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (1) Pursuant to 326 IAC 6-3-2, the particulate emissions from the one (1) natural gas-fired rotary kiln, identified as Kiln 1, shall not exceed 2.40 pounds per hour, when operating at a process weight rate of 900 pounds (including dry material and water) per hour. Based upon the stack test performed on March 21, 1997, the unrestricted potential particulate emissions from Kiln 1 are 17.9 pounds per hour.
- (2) Pursuant to 326 IAC 6-3-2, the particulate emissions from the one (1) natural gas-fired rotary kiln, identified as Kiln 2, shall not exceed 2.22 pounds per hour, when operating at a process weight rate of 800 pounds (including dry material and water) per hour. Based upon the stack test performed on March 21, 1997, the unrestricted potential particulate emissions from Kiln 2 are 9.60 pounds per hour.

IDEM is reviewing this matter and will take appropriate action. The May 1997 stack tests were conducted by the source, and were not observed, validated or approved by IDEM, OAQ. IDEM, OAQ, has included a stack test requirement in this proposed permit.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
ST-1	Kiln 1	40.0	2.0	2,500	800
ST-2	Kiln 2	28.0	1.17	1,600	300 - 800
ST-3	Boiler	38.0	0.83	unknown	300
ST-4	Rotary Tube Dryer	38.0	0.83	unknown	300
ST-5	Furnace	38.0	0.5	unknown	300
ST-6	Hot water heater	36.0	0.5	unknown	300

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

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 October 30, 2002, with additional information received on July 11 and September 8, 2003.

Emission Calculations

As indicated in the "Air Pollution Control Justification as an Integral Part of the Process" section of this document, the emissions from the two (2) raw material storage silos, one (1) pulverizer, and one (1) mega-mill are negligible (< 0.01 tons/yr) due to the enclosed bin vent dust collectors, which are considered integral to the processes. The emissions from the one (1) 1,000 gallon LPG tank, one (1) Simpactor grinder for wet grinding, one (1) wet milling station, and one (1) blender are also negligible (< 0.01 tons/yr).

The applicant calculated HCl gas emissions from the acid reactor and acid storage tank using a technical guidance from a commercial chemical facility in Louisville, Kentucky. The calculations were reviewed and have been determined to be accurate. Based on the lookup table, the HCl emissions from acid delivery to and from the storage facilities and reactor and the acid storage are 198 pounds per year (0.099 tons per year).

See pages 1 through 4 of 4 of Appendix A of this document for detailed emissions calculations for all other processes.

Potential to Emit of the Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential to Emit (tons/yr)
PM	87.8
PM ₁₀	88.2
SO ₂	0.038
VOC	0.376
CO	5.38
NO _x	6.41

HAPs	Potential to Emit (tons/yr)
Hexane	0.115
Naphthalene	0.024
Chlorine	0.051
HCl	0.099
Benzene, Dichlorobenzene, Formaldehyde, Toluene, Lead, Cadmium, Chromium, Manganese, Nickel	< 0.01 each and total
Total	0.296

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than one hundred (100) tons per year, the potential to emit of any single HAP is less than ten (10) tons per year, and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (b) **Fugitive Emissions**
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Daviess County.

Pollutant	Status
PM _{2.5}	attainment
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
1-Hour Ozone	attainment
8-Hour Ozone	attainment
CO	attainment
Lead	attainment

- (a) 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. Daviess 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. See the State Rule Applicability - Entire Source section of this document.

- (b) Daviess County has been classified as unclassifiable or attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM_{2.5} emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions. See the State Rule Applicability - Entire Source section of this document.
- (c) Daviess County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section of this document.

Source Status

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	17.0
PM ₁₀	17.3
SO ₂	0.038
VOC	0.376
CO	5.38
NO _x	6.41
Single HAP (Hexane)	0.115
Combination HAPs	0.296

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of two-hundred fifty (250) tons per year or greater and it is not in one of the twenty-eight (28) listed source categories.
- (b) Emissions were based on the 326 IAC 6-3-2 limits in the permit for Kiln 1 (maximum operating hours 5,112 hrs/yr) and Kiln 2 (maximum operating hours 8,760 hrs/yr) and the unrestricted potential emissions from all other processes.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) criteria pollutant is less than one-hundred (100) tons per year,

- (b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and
- (c) the combination of HAPs is less than twenty-five (25) tons per year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

Federal Rule Applicability

- (a) The one (1) boiler (B-1), constructed in 2000, has a heat input capacity of 0.84 million British thermal units per hour. Therefore, the requirements of the New Source Performance Standards, 326 IAC 12, 40 CFR 60.40, 40 CFR 60.40a, 40 CFR 60.40b and 40 CFR 60.40c, Subparts D, Da, Db and Dc, are not included in the permit.
- (b) The one (1) LPG tank, constructed in 2002, has a capacity less than 75 cubic meters. Therefore, the requirements of 40 CFR 60.110b, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 326 IAC 12, are not included in the permit.
- (c) This source does not contain facilities that process or produce any of the following minerals, their concentrates or any mixture of which the majority (>50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite. Therefore, this source is not a mineral processing pursuant to 40 CFR 60, Subpart UU, and the requirements of that rule are not included in the permit.
- (d) This source does not manufacture organic chemicals. Therefore, the requirements of the Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, 40 CFR 60.480, Subpart VV, 326 IAC 12, are not included in the permit.
- (e) This source does not produce any of the chemicals listed in 40 CFR 60.610, Subpart III, as a product, co-product, by-product or intermediate product. Therefore, the requirements of 40 CFR 60.610, Subpart III, Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes, 326 IAC 12, are not included in the permit.
- (f) This source does not produce any of the chemicals listed in 40 CFR 60.660, Subpart NNN, as a product, co-product, by-product or intermediate product. Therefore, the requirements of 40 CFR 60.660, Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations, 326 IAC 12, are not included in the permit.
- (g) This source does not process any of the minerals or any mixture of which the majority is a mineral listed in 40 CFR 60, Subpart OOO. Therefore, the requirements of 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, 326 IAC 12, are not included in the permit.
- (h) This source does not produce any of the chemicals listed in 40 CFR 60.700, Subpart RRR, as a product, co-product, by-product or intermediate product. Therefore, the requirements of 40 CFR 60.700, Subpart RRR, Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes, 326 IAC 12, are not included in the permit.

- (i) The one (1) small parts cleaner does not use halogenated solvents. Therefore, the requirements of the National Emission Standards for Halogenated Solvent Cleaning, Subpart T, are not included in the permit.
- (j) This source is not a major source of HAPs. Therefore, the requirements of 40 CFR 63, Subpart F, National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry, are not included in the permit.
- (k) This source is not a major source of HAPs. Therefore, the requirements of 40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, are not included in the permit.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

Construction of this source commenced prior to August 7, 1977. This source has since been modified. The unrestricted potential to emit each criteria pollutant from this source, which is not one (1) of the twenty-eight (28) listed source categories, is less than 250 tons per year. Therefore, this source is a minor source pursuant to 326 IAC 2-2, PSD, and the requirements of 326 IAC 2-2, PSD, are not applicable.

326 IAC 2-4.1-1 (New Source Toxics Control)

The potential to emit each individual HAP from this source is less than ten (10) tons per year and the potential to emit any combination of HAPs from this source is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-4.1-1 are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is not located in Lake or Porter County with the potential to emit greater than twenty-five (25) tons per year of NO_x, does not emit five (5) tons per year or more of lead and does not require a Part 70 Operating Permit. Therefore, the requirements of 326 IAC 2-6 do not apply.

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 the 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.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) The potential particulate emissions from the two (2) raw material storage silos, one (1) pulverizer, one (1) mega-mill, one (1) Simpactor grinder, one (1) wet milling station, one

(1) blender, and one (1) dryer are each less than five hundred fifty-one thousandths (0.551) pound per hour. Therefore, pursuant to 326 IAC 6-3-1(a)(14), those operations are exempt from the requirements of 326 IAC 6-3-2.

- (b) Pursuant to 326 IAC 6-3-2, the particulate emissions from the one (1) natural gas-fired rotary kiln, identified as Kiln 1, shall not exceed 2.40 pounds per hour, when operating at a process weight rate of 900 pounds (including dry material and water) per hour. Based upon the stack tests conducted on March 21, 1997, the unrestricted potential particulate emissions from Kiln 1 are 17.9 pounds per hour. This indicates that Kiln 1 will not comply with this rule. The May 1997 stack tests were conducted by the source, and were not observed, validated or approved by IDEM, OAQ. IDEM, OAQ, has included testing requirements in this proposed permit.
- (c) Pursuant to 326 IAC 6-3-2, the particulate emissions from the one (1) natural gas-fired rotary kiln, identified as Kiln 2, shall not exceed 2.22 pounds per hour, when operating at a process weight rate of 800 pounds (including dry material and water) per hour. Based upon the stack tests conducted on March 21, 1997, the unrestricted potential particulate emissions from Kiln 2 are 9.60 pounds per hour. This indicates that Kiln 2 will not comply with this rule. The May 1997 stack tests were conducted by the source, and were not observed, validated or approved by IDEM, OAQ. IDEM, OAQ, has included testing requirements in this proposed permit.

The limitations in (b) and (c) are based upon the following:

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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

- (a) The one (1) natural gas-fired hot water heater, identified as State, installed in 1990, is subject to the requirements of 326 IAC 6-2 because it indirectly heats water. Therefore, it is not a source of indirect heating.
- (b) The one (1) natural gas indirect-fired rotary dryer, identified as RD-1, constructed in 1993, is not subject to the requirements of 326 IAC 6-2 because it is used to dry materials. It is not used as a heat source. Therefore, it is not a source of indirect heating.
- (c) The one (1) natural gas-fired furnace, identified as American Standard THD100A960B1, installed in 1979, is not subject to the requirements of 326 IAC 6-2 because it directly heats the air. Therefore, it is not a source of indirect heating.
- (d) The one (1) boiler (B-1) constructed in 2000, with a total heat input capacity of 0.84 million British thermal units per hour, must comply with the PM emission limitation of 326 IAC 6-2-4. This limitation is based on the following equation is given in 326 IAC 6-2-4:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

For the one (1) boiler:

$$Pt = 1.09 / (0.84)^{0.26} = 1.14 \text{ lb/MMBtu}$$

Pursuant to 326 IAC 6-2-4, for Q less than 10 MMBtu/hr, Pt shall not exceed 0.6. Therefore, the one (1) boiler is limited to emissions of 0.6 pound per million British thermal units.

Based on Appendix A, the potential to emit PM from the one (1) boiler is:

$$0.007 \text{ tons/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) / 0.901 \text{ MMBtu/hr} = 0.002 \text{ pounds PM per MMBtu}$$

Therefore, the one (1) boiler will comply with this rule.

326 IAC 8-1-6 (New facilities; General reduction requirements)

The potential VOC emissions from this source are less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

326 IAC 8-3-2 (Cold Cleaner Operations)

The one (1) small parts cleaner, constructed after January 1, 1980, is subject to the provisions of 326 IAC 8-3-2 (Organic solvent degreasing operations: cold cleaner operations). The owner or operator of the cold cleaning facility shall:

- (a) equip the cleaner with a cover;
- (b) equip the cleaner with a facility for draining cleaned parts;
- (c) close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) provide a permanent, conspicuous label summarizing the operating requirements;
- (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Organic Solvent Degreasing Operations)

The one (1) small parts cleaner is not subject to the provisions of 326 IAC 8-3-5 (Organic solvent degreasing operations: cold cleaner degreaser operation and control) because it was constructed prior to July 1, 1990 in Daviess County.

326 IAC 9-1 (Carbon Monoxide Emission Rules)

There is no CO emission limitation established by 326 IAC 2 for this source. Therefore, pursuant to 326 IAC 9-1-1, the requirements of 326 IAC 9-1 are not applicable.

Compliance Requirements

Permits issued under 326 IAC 2-6.1 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-6.1-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The two (2) rotary kilns, Kiln 1 and Kiln 2, have the following compliance determination condition:

Within ninety (90) days after issuance of this permit, in order to demonstrate compliance with 326 IAC 6-3-2, Particulate Emission Limitations for Manufacturing Processes, the Permittee shall perform PM and PM₁₀ testing for the two (2) kilns, identified as Kiln 1 and Kiln 2, utilizing methods as approved by the Commissioner. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C - Performance Testing.

The following Compliance Monitoring Conditions are also applicable:

- (a) Visible emission notations of the two (2) rotary kilns stack exhausts (ST-1 and ST-2) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. 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 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.

These monitoring conditions are required for Kilns 1 and 2 in order to ensure that the kilns, and any controls added as a result of the compliance schedule, are operating properly at all times in order to comply with 326 IAC 5-1 and 326 IAC 6-3-2.

Conclusion

The operation of this ferrite powder manufacturing source shall be subject to the conditions of the **Minor Source Operating Permit 027-16278-00009**.

**Appendix A: Emissions Calculations
Kilns**

**Company Name: Hoosier Magnetics, Inc.
Address City IN Zip: 2001 Cosby Road, Washington, IN 47501
MSOP: 027-16278
Plt ID: 027-00009
Reviewer: CarrieAnn Paukowits
Application Date: October 30, 2002**

Stack ID	Process	Process weight rate (lbs/hr)	Maximum Capacity (lbs/yr)	Emission Factors*				Potential Emissions				Potential Emissions			
				PM (lbs/lb)	PM-10 (lbs/lb)	HCl (lbs/lb)	Chlorine (lbs/lb)	PM (lbs/hr)	PM-10 (lbs/hr)	HCl (lbs/hr)	Chlorine (lbs/hr)	PM (tons/yr)	PM-10 (tons/yr)	HCl (tons/yr)	Chlorine (tons/yr)
ST-1	Kiln 1	483	2469096	0.037	0.037	1.547E-07	2.166E-05	17.9	17.9	0.00007	0.010	45.7	45.7	0.0002	0.027
ST-2	Kiln 2	400	3504000	0.024	0.024	0.0000001	0.000014	9.60	9.60	0.00004	0.006	42.0	42.0	0.0002	0.025
Totals:												87.7	87.7	0.0004	0.0513

*Emission factors based on March 1997 Stack Test.

Maximum Capacity (lbs/yr) = Process weight rate (lbs/hr) x maximum potential hours of operation per year

Maximum potential hours of operation per year at Kiln 1 are 5,112 hrs/yr. Kiln 1 is a batch process in which the kilns can only operate 3.5 days out of any run, and each run is a 6-day period.

There is a 2.5-day cleaning cycle during each run, during which the kiln is not operating.

Maximum potential hours of operation per year at Kiln 2 are 8,760 hrs/yr.

Potential emissions (lbs/hr) = Process weight rate (lbs/hr) x Emission Factor (lbs/lb)

Potential emissions (tons/yr) = Maximum Capacity (lbs/yr) x Emission Factor (lbs/lb) / 2,000 lbs/ton

**Appendix A: Emissions Calculations
Parts Cleaner**

Company Name: Hoosier Magnetics, Inc.
Address City IN Zip: 2001 Cosby Road, Washington, IN 47501
MSOP: 027-16278
Pit ID: 027-00009
Reviewer: CarrieAnn Paukowits
Application Date: October 30, 2002

Process	Material	Maximum Usage Rate (gallons/yr)	Solvent Density (lbs/gal)	Weight % HAP	Potential to Emit	
					VOC (tons/yr)	HAP (tons/yr)
Small Parts Cleaner	Naphthalene	5	9.56	100%	0.024	0.024

Methodology

Potential to Emit VOC (tons/yr) = Maximum Usage Rate (gallons/yr) x Solvent Density (lbs/gal) / 2,000 lbs/ton

Potential to Emit HAP (tons/yr) = Maximum Usage Rate (gallons/yr) x Solvent Density (lbs/gal) x Weight % HAP / 2,000 lbs/ton

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

**Company Name: Hoosier Magnetics, Inc.
Address City IN Zip: 2001 Cosby Road, Washington, IN 47501
MSOP: 027-16278
Pit ID: 027-00009
Reviewer: CarrieAnn Paukowits
Application Date: October 30, 2002**

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100 **see below	5.50	84.0

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Equipment	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Emission in tons/yr					
			PM*	PM10*	SO2	NOx	VOC	CO
Hot water heater	0.075	0.657	0.001	0.002	0.000	0.033	0.002	0.028
Rotary dryer	3.6	31.536	0.030	0.120	0.009	1.58	0.087	1.32
Kiln 1 (operates only 5,112 hrs/yr)	12.5	63.9	0.061	0.243	0.019	3.20	0.176	2.68
Kiln 2	2.62	22.9512	0.022	0.087	0.007	1.15	0.063	0.964
Furnace	0.2	1.752	0.002	0.007	0.001	0.088	0.005	0.074
Boiler (B-1)	0.840	7.3584	0.007	0.028	0.002	0.368	0.020	0.309
Total	19.84	128	0.122	0.487	0.038	6.41	0.352	5.38

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

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 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 4 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 HAPs Emissions**

**Company Name: Hoosier Magnetics, Inc.
 Address City IN Zip: 2001 Cosby Road, Washington, IN 47501
 MSOP: 027-16278
 Plt ID: 027-00009
 Reviewer: CarrieAnn Paukowits
 Application Date: October 30, 2002**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 0.002	Dichlorobenzene 0.001	Formaldehyde 0.075	Hexane 1.80	Toluene 0.003
Potential Emission in tons/yr	0.0001	0.0001	0.005	0.115	0.0002

HAPs - Metals

Emission Factor in lb/MMcf	Lead 0.0005	Cadmium 0.001	Chromium 0.001	Manganese 0.0004	Nickel 0.002	Total HAPs
Potential Emission in tons/yr	0.00003	0.0001	0.0001	0.00002	0.0001	0.121

Methodology is the same as page 3.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.