



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: July 22, 2008

RE: Core Ventures, Inc. / 003-26716-00339

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

Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires 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, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from 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-AM.dot12/3/07



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July 22, 2008

Michael Poselle
Core Ventures, Inc.
6000 Old Maumee Road
Fort Wayne, IN 46803

Re: 003-26716-00339
First Notice-Only Change to
M003-21849-00339

Dear Mr. Poselle:

Core Ventures, Inc. was issued a New Source Review (NSR)/ Minor Source Operating Permit (MSOP) No. M003-21849-00339 on February 7, 2006 for a stationary isocure core manufacturing plant located at 3840 East Pontiac Street, Fort Wayne, IN 46803. On July 1, 2008, the Office of Air Quality (OAQ) received an application from the source:

- 1) relating to construction and operation of six (6) new Redford HS16 Shell Core Machines identified as C6 through C11, each with a maximum capacity of 0.1125 tons of core sand per hour and 150,000 Btu/hr. The new emission units C6 through C11 have an associated core release spray operation with a maximum capacity of 0.0016 gallons of emulsion per hour. The combined potential to emit from the new shell core machine operations are as follows:

Pollutant	tons/year
PM	2.46
PM ₁₀	0.41
SO ₂	0.54
VOC	0.86
CO	0.33
NO _x	0.73
HAP Single	0.81
HAPs Total	0.82

The addition of these units to the permit is considered a notice-only change, since the potential emissions of regulated criteria pollutants and hazardous air pollutants are less than the ranges specified 326 IAC 2-6.1-6(g)(4) and 326 IAC 2-6.1-6(d)(10), respectively. The uncontrolled/unlimited potential to emit of the entire source will continue to be less than the threshold levels specified in 326 IAC 2-7. The addition of these units will not cause the source's potential to emit to be greater than the threshold levels specified in 326 IAC 2-2 or 326 IAC 2-3, (see Appendix A).

- 2) relating to the removal from the permit of one (1) resin/sand batch mixer identified as EU-M2, the two (2) continuous enclosed mixers identified as EU-M3 and EU-M4, and two (2) cold box core machines identified as C6 and C7 that were never constructed. The emission unit identifications C6 and C7 are being reused for two of the Redford HS16 Shell Core Machines.

Pursuant to the provisions of 326 IAC 2-6.1-6, the permit is hereby revised as follows with the deleted language as ~~strikeouts~~ and new language **bolded**.

...

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) ~~Two (2)~~ **One (1)** resin/sand batch mixers, identified as EU-M1 ~~and EU-M2~~, constructed in 2006, ~~each~~ with a maximum capacity of 7,500 pounds of sand per hour and controlled by one (1) dust collector.
- ~~(b) Two (2) continuous enclosed mixers, identified as EU-M3 and EU-M4, constructed in 2006, each with a maximum capacity of 2,400 pounds of sand per hour.~~
- (b) Six (6) Redford Shell Core machines, identified as C6 through C11, constructed in 2007, each with a maximum capacity of 0.1125 tons of core sand per hour and 150,000 Btu/hr, exhausting through general roof exhaust vents.**
- (c) ~~Seven (7)~~ **Five (5)** polyurethane cold box core machines, identified as C1 through ~~C7~~ **C5**, constructed in 2006, each with a maximum production rate of 1.2 tons of sand cores per hour, using DMIPA as a catalyst gas, controlled by one of the three (3) scrubbers, and exhausting through stacks S1 through S3.
- (d) One (1) core release spray operation, constructed in 2006, with a maximum core release agent usage of 1,049 gallons per year, applying the core release agent by air atomized spray guns.
- (e) One (1) mold cleaning operation, constructed in 2006, with a maximum mold cleaner usage of 591 gallons per year, applying the mold cleaner with spray air atomized guns.
- (f) One (1) water-based core wash operation, identified as CW, constructed in 2006, with a maximum cleaner usage of 16,828 gallons per year.
- (g) One (1) core release spray operation, constructed in 2007, with a maximum capacity of 14 gallons of emulsion per year.**

...

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

- (a) ~~Two (2)~~ **One (1)** resin/sand batch mixers, identified as EU-M1 ~~and EU-M2~~, constructed in 2006, ~~each~~ with a maximum capacity of 7,500 pounds of sand per hour and controlled by one (1) dust collector.
- (b) Six (6) Redford Shell Core machines, identified as C6 through C11, constructed in 2007, each with a maximum capacity of 0.1125 tons of core sand per hour and 150,000 Btu/hr, exhausting through general roof exhaust vents.**

(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 2-6.1]

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

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from ~~each of the mixers EU-M1 and EU-M2~~ shall not exceed 9.94 lbs/hr when operating at the process weight rate of 7,500 lbs/hr.
- (b) **Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the each of the shell core machines C6 through C11 shall not exceed 0.95 lbs/hr when operating at a process weight rate of 225 lbs/hr.**

The pounds per hour limitation was calculated using 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:

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

Compliance Determination Requirements

D.1.2 Particulate Control

In order to comply with Condition D.1.1, the dust collectors for particulate control shall be in operation and control emissions from the mixers EU-M1 ~~and EU-M2~~ at all times that the mixers EU-M1 ~~and EU-M2~~ **are is** in operation.

...

IDEM, OAQ has decided to make additional revisions to the permit as described below. The permit is revised as follows with deleted language as ~~strikeouts~~ and new language **bolded**:

- (a) All occurrences of IDEM mailing addresses have been revised to include a mail code (MC) as follows:
- | | |
|--------------------|---------------------------|
| Asbestos Section: | MC 61-52 IGCN 1003 |
| Compliance Branch: | MC 61-53 IGCN 1003 |
| Permits Branch: | MC 61-53 IGCN 1003 |
- (b) IDEM has begun implementing a new procedure and will no longer list the name or title of the Authorized Individual (A.I.) in the permit document.
- (c) Section A.1 is revised to indicate that Allen County is now in attainment for the 8-hour ozone standard. Section A.1 is updated as follows:

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 isocore manufacturing plant.

Authorized Individual:	President
Source Address:	3840 East Pontiac Street, Fort Wayne, Indiana 46803
Mailing Address:	3840 East Pontiac Street, Fort Wayne, Indiana 46803
General Source Phone:	(260) 748-4477
SIC Code:	2790
County Location:	Allen

Source Location Status: ~~Nonattainment for Ozone under 8-hour standards~~
Attainment area for all criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD and Emission Offset Rules
Minor Source, Section 112 of the Clean Air Act
Not in 1 of 28 Source Categories

- (d) The Compliance Data Branch facsimile number has been revised to 317-233-5967 **6865**.
- (e) Condition C.5(g) is revised to replace Indiana Accredited Asbestos Inspector with Indiana Licensed Asbestos Inspector and to remove the statement that the requirement to use an Indiana Accredited Asbestos Inspector is not federally enforceable.

C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

...

- (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 Accredited Asbestos inspector is not federally enforceable.~~

...

All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit. 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's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

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 Jason R. Krawczyk, of my staff, at 317-234-5175 or 1-800-451-6027, and ask for extension 4-5175.

Sincerely,

Original signed by

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit

IC/JRK

cc: File - Allen County
Allen County Health Department
U.S. EPA, Region V
Air Compliance Section
Compliance Data Section
Technical Support and Modeling
Permits Administrative and Development
Billing, Licensing and Training Section



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NEW SOURCE CONSTRUCTION PERMIT AND MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

**Core Ventures Inc.
3840 East Pontiac Street
Fort Wayne, Indiana 46803**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units 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.

Operation Permit No.: MSOP 003-21849-00339	
Issued by: <i>Original Signed By:</i> Paul Dubenetzky, Assistant Commissioner Office of Air Quality	Issuance Date: February 7, 2006 Expiration Date: February 7, 2011

First Notice-Only Change No.: MSOP 003-26716-00339	
Issued by: Original signed by Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: July 22, 2008 Expiration Date: February 7, 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 isocure core manufacturing plant.

Source Address:	3840 East Pontiac Street, Fort Wayne, Indiana 46803
Mailing Address:	3840 East Pontiac Street, Fort Wayne, Indiana 46803
General Source Phone:	(260) 748-4477
SIC Code:	2790
County Location:	Allen
Source Location Status:	Nonattainment for Ozone under 8-hour standards
Source Status:	Minor Source Operating Permit Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not in 1 of 28 Source Categories

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) One (1) resin/sand batch mixer, identified as EU-M1, constructed in 2006, with a maximum capacity of 7,500 pounds of sand per hour and controlled by one (1) dust collector.
- (b) Six (6) Redford Shell Core machines, identified as C6 through C11, constructed in 2007, each with a maximum capacity of 0.1125 tons of core sand per hour and 150,000 Btu/hr, exhausting through general roof exhaust vents.
- (c) Five (5) polyurethane cold box core machines, identified as C1 through C5, constructed in 2006, each with a maximum production rate of 1.2 tons of sand cores per hour, using DMIPA as a catalyst gas, controlled by one of the three (3) scrubbers, and exhausting through stacks S1 through S3.
- (d) One (1) core release spray operation, constructed in 2006, with a maximum core release agent usage of 1,049 gallons per year, applying the core release agent by air atomized spray guns.
- (e) One (1) mold cleaning operation, constructed in 2006, with a maximum mold cleaner usage of 591 gallons per year, applying the mold cleaner with spray air atomized guns.
- (f) One (1) water-based core wash operation, identified as CW, constructed in 2006, with a maximum cleaner usage of 16,828 gallons per year.
- (g) One (1) core release spray operation, constructed in 2007, with a maximum capacity of 14 gallons of emulsion per year.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

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.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit 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 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.6 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.7 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.
 - (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (2) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2-6.1-6 and an Operation Permit Validation Letter is issued.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any

permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

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

- (a) Annual notification shall be submitted 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) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (d) 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) 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 for the sources as described in 326 IAC 1-6-3. At a minimum, the PMP shall include:
 - (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
MC 61-53 IGCN 1003
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 PMP's 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 PMP 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.10 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (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
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.

- (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)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a non-road engine, as defined in 40 CFR 89.2.

B.11 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 this title or the conditions of this permit or any operating permit revisions;
- (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 processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

- (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.12 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

B.13 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.14 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

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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 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 by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

C.5 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
MC 61-52 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 2-7-1(34).

- (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.

Compliance Requirements [326 IAC 2-1.1-11]

C.6 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

C.7 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.8 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.

Record Keeping and Reporting Requirements

C.9 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.10 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 when operation begins.

C.11 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
MC 61-53 IGCN 1003
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, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not 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.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

- (a) One (1) resin/sand batch mixer, identified as EU-M1, constructed in 2006, with a maximum capacity of 7,500 pounds of sand per hour and controlled by one (1) dust collector.
- (b) Six (6) Redford Shell Core machines, identified as C6 through C11, constructed in 2007, each with a maximum capacity of 0.1125 tons of core sand per hour and 150,000 Btu/hr, exhausting through general roof exhaust vents.

(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 2-6.1]

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

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the mixer EU-M1 shall not exceed 9.94 lbs/hr when operating at the process weight rate of 7,500 lbs/hr.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the each of the shell core machines C6 through C11 shall not exceed 0.95 lbs/hr when operating at a process weight rate of 225 lbs/hr.

The pounds per hour limitation was calculated using 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:

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

Compliance Determination Requirements

D.1.2 Particulate Control

In order to comply with Condition D.1.1, the dust collectors for particulate control shall be in operation and control emissions from the mixer EU-M1 at all times that the mixer EU-M1 is in operation.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

- (f) One (1) water-based core wash operation, identified as CW, constructed in 2006, with a maximum cleaner usage of 16,828 gallons per year.

(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 2-6.1]

D.2.1 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; and
- (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.

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements

outlined in subsection (b).

- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), for a cold cleaning facility construction of which commenced after July 1, 1990, the Permittee shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**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:	Core Ventures, Inc.
Address:	3840 East Pontiac Street
City:	Fort Wayne, Indiana 46803
Phone #	(260) 748-4477
MSOP #:	003-21849-00339

I hereby certify that Core Ventures, Inc. is still in operation.
 no longer in operation.

I hereby certify that Core Ventures, Inc. is in compliance with the requirements of MSOP 003-21849-00339
 not in compliance with the requirements of MSOP 003-21849-00339

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 ?_____, 100TONS/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 PERM 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:

SUMMARY OF EMISSIONS

Company Name: Core Ventures, Inc.
Address City IN Zip: 3840 East Pontiac Street, Fort Wayne, IN 46803
Permit Number: 003-21849-00339
Plt ID: 003-00339
Reviewer: Jason R. Krawczyk
Date: July 14, 2008

Uncontrolled Emissions (Tons/Yr)						
Pollutant	Combustion	Shell Core Machines	Cold Box Core Machines	Mixer	Release Agent/Cleaner Usage	Total PTE
PM	0.01	2.43	-	59.13	2.52	64.09
PM10	0.03	0.36	-	8.87	2.52	11.79
VOC	0.02	0.81	60.97	-	2.42	64.23
NOx	0.39	0.34	-	-	-	0.73
SO2	0.00	0.54	-	-	-	0.54
CO	0.33	-	-	-	-	0.33
Single HAP	-	0.81	-	-	-	0.81
Combined HAPs	0.01	0.81	-	-	-	0.82

Controlled Emissions (Tons/Yr)						
Pollutant	Combustion	Shell Core Machines	Cold Box Core Machines	Mixer	Release Agent/Cleaner Usage	Total PTE
PM	0.01	2.43	-	0.59	2.52	5.55
PM10	0.03	0.36	-	0.09	2.52	3.01
VOC	0.02	0.81	28.01	-	2.42	31.27
NOx	0.39	0.34	-	-	-	0.73
SO2	0.00	0.54	-	-	-	0.54
CO	0.33	-	-	-	-	0.33
Single HAP	-	0.81	-	-	-	0.81
Combined HAPs	0.01	0.81	-	-	-	0.82

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

Company Name: Core Ventures, Inc.
Address City IN Zip: 3840 East Pontiac Street, Fort Wayne, IN 46803
Permit Number: 003-21849-00339
Plt ID: 003-00339
Reviewer: Jason R. Krawczyk
Date: July 14, 2008

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

0.9

7.9

(Six units at 150,000 Btu/hr each)

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.01	0.03	0.00	0.39	0.02	0.33

*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

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 3 for HAPs emissions calculations.

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

**Company Name: Core Ventures, Inc.
 Address City IN Zip: 3840 East Pontiac Street, Fort Wayne, IN 46803
 Permit Number: 003-21849-00339
 Pit ID: 003-00339
 Reviewer: Jason R. Krawczyk
 Date: July 14, 2008**

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	8.278E-06	4.730E-06	2.957E-04	7.096E-03	1.340E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.971E-06	4.336E-06	5.519E-06	1.498E-06	8.278E-06

Methodology is the same as page 1.

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
VOC Emissions
From the Six (6) Shell Core Machines**

**Company Name: Core Ventures, Inc.
Address City IN Zip: 3840 East Pontiac Street, Fort Wayne, IN 46803
Permit Number: 003-21849-00339
Plt ID: 003-00339
Reviewer: Jason R. Krawczyk
Date: July 14, 2008**

Shell Core Machines PM, PM10, NOx, and SOx Potential To Emit

	Unit ID	Capacity (tons core/hr)	PM (tons/yr)	PM10 (tons/yr)	NOx (tons/yr)	SOx (tons/yr)
Emission Factor (lb/ton core)			3.60	0.54	0.5	0.32
Shell Core Machine	C6	0.1125	0.4050	0.0608	0.0563	0.0360
Shell Core Machine	C7	0.1125	0.4050	0.0608	0.0563	0.0360
Shell Core Machine	C8	0.1125	0.4050	0.0608	0.0563	0.0360
Shell Core Machine	C9	0.1125	0.4050	0.0608	0.0563	0.0360
Shell Core Machine	C10	0.1125	0.4050	0.0608	0.0563	0.0360
Shell Core Machine	C11	0.1125	0.4050	0.0608	0.0563	0.0360
Total		0.675	2.43	0.36	0.34	0.54

Notes:

PM / PM10 Emission Factors from FIRE 6.25 SCC 30400350
SOx Emission Factor from FIRE 6.25 SCC 30400370
NOx Emission Factor from FIRE 6.25 SCC 30400370

Methodology:

PM (tons/yr) = Capacity (tons core/hr) * Emission Factor (lb/ton core)
PM10 (tons/yr) = Capacity (tons core/hr) * Emission Factor (lb/ton core)
NOx (tons/yr) = Capacity (tons core/hr) * Emission Factor (lb/ton core)
SOx (tons/yr) = Capacity (tons core/hr) * Emission Factor (lb/ton core)

Shell Core Machines VOC and HAP Potential to Emit

	Unit ID	Capacity (tons core/hr)	% Phenol (maximum)	% Phenol converted to formaldehyde and released	VOC (tons/year)	HAP (tons/year)
Shell Core Machine	C6	0.1125	5.5%	0.25%	0.1355	0.1355
Shell Core Machine	C7	0.1125	5.5%	0.25%	0.1355	0.1355
Shell Core Machine	C8	0.1125	5.5%	0.25%	0.1355	0.1355
Shell Core Machine	C9	0.1125	5.5%	0.25%	0.1355	0.1355
Shell Core Machine	C10	0.1125	5.5%	0.25%	0.1355	0.1355
Shell Core Machine	C11	0.1125	5.5%	0.25%	0.1355	0.1355
Total		0.675			0.8130	0.8130

Notes:

Sand is pre-coated; %Phenol and % hexa are % of total sand throughput and is based on the MSDS from the manufacturer.
% released and % converted are based on Form R Reporting of Binder Chemicals Used in Foundries
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
All emission factors are based on normal firing.

Methodology:

VOC (tons/yr) = Capacity (tons core/hr) * % Phenol (maximum) * % Phenol converted to formaldehyde and released * 8760 hrs/yr
HAP (tons/yr) = Capacity (tons core/hr) * % Phenol (maximum) * % Phenol converted to formaldehyde and released * 8760 hrs/yr

Appendix A: Emission Calculations
VOC Emissions
From the Five (5) Cold Box Core Machines

Company Name: Core Ventures, Inc.
Address City IN Zip: 3840 East Pontiac Street, Fort Wayne, IN 46803
Permit Number: 003-21849-00339
Plt ID: 003-00339
Reviewer: Jason R. Krawczyk
Date: July 14, 2008

Max. Production Rate

1.2 tons of core per hour per unit

Material	VOC Emission Factor*	PTE of VOC before Control	PTE of VOC before Control	Control Device	Control Efficiency**	PTE of VOC after Control	PTE of VOC after Control
	(lbs/ton core)	(lbs/hr)	(tons/yr)		(%)	(lbs/hr)	(tons/yr)
Resin (binder)	1.00	1.20	5.26	Acid Scrubber	NA	1.20	5.26
DMIPA (catalyst)***	1.32	1.58	6.94	Acid Scrubber	95%	0.08	0.35
Total for One Unit		2.78	12.19			1.28	5.60
Total for C1 through C5			60.97				28.01

Notes:

* Emission factors are provided by the manufacturer and based on M003-21849-00339

** The control efficiency for the VOC emissions from the resin is unknown.

*** DMIPA = Dimethylisopropanolamine, which is not a HAP.

Methodology:

PTE of VOC before Control (lbs/hr) = Max. Production Rate (tons/hr) x Emission Factor (lbs/ton)

PTE of VOC before Control (tons/yr) = Max. Production Rate (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

PTE of VOC after Control (lbs/hr) = Max. Production Rate (tons/hr) x Emission Factor (lbs/ton) x (1- Control Efficiency)

PTE of VOC after Control (tons/yr) = Max. Production Rate (tons/hr) x Emission Factor (lbs/ton) x (8760 hr/yr) x (1 ton/2000 lbs) x (1- Control Efficiency)

**Appendix A: Emission Calculations
PM/PM10 Emissions
From the Resin/Sand Mixers**

**Company Name: Core Ventures, Inc.
Address City IN Zip: 3840 East Pontiac Street, Fort Wayne, IN 46803
Permit Number: 003-21849-00339
Plt ID: 003-00339
Reviewer: Jason R. Krawczyk
Date: July 14, 2008**

Mixer ID	Max. Capacity (lbs/hr)	Emission Factors*		Uncontrolled PM Potential Emissions		Uncontrolled PM10 Potential Emissions		Control Efficiency** (%)	Controlled PM Potential Emissions		Controlled PM10 Potential Emissions	
		PM (lbs/ton)	PM10 (lbs/ton)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
M-1	7,500	3.60	0.54	13.50	59.13	2.03	8.87	99.0%	0.14	0.59	0.02	0.09
Total					59.13		8.87			0.59		0.09

Notes:

* Emission factors are from FIRE, Version 6.25, SCC 3-04-003-50 for sand grinding/handling at gray iron foundries.

** The mixers are controlled by a baghouse.

Methodology:

PTE of PM/PM10 before Control (lbs/hr) = Max. Production Rate (lbs/hr) x 1 ton/2000 lbs x Emission Factor (lbs/ton)

PTE of PM/PM10 before Control (tons/yr) = Max. Production Rate (lbs/hr) x 1 ton/2000 lbs x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

PTE of PM/PM10 after Control (lbs/hr) = Max. Production Rate (lbs/hr) x 1 ton/2000 lbs x Emission Factor (lbs/ton) x (1-Control Efficiency)

PTE of PM/PM10 after Control (tons/yr) = Max. Production Rate (lbs/hr) x 1 ton/2000 lbs x Emission Factor (lbs/ton) x (1-Control Efficiency) x 8760 hr/yr x 1 ton/2000 lbs

**Appendix A: Emission Calculations
VOC and PM/PM10 Emissions
From the Use of Release Agents and Cleaners**

**Company Name: Core Ventures, Inc.
Address City IN Zip: 3840 East Pontiac Street, Fort Wayne, IN 46803
Permit Number: 003-21849-00339
Plt ID: 003-00339
Reviewer: Jason R. Krawczyk
Date: July 14, 2008**

Core Release and Mold Cleaner

Unit	Material	Density (lbs/gal)	Weight % VOC	Maximum Usage (gal/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	Weight % Solids	Transfer Efficiency*	PTE of PM/PM10 before Control (lbs/hr)	PTE of PM/PM10 before Control (tons/yr)
Core Release Agent	Zip Slip 157	7.63	1.00%	0.12	0.22	0.04	99.0%	40%	0.54	2.38
Mold Cleaner	Zip-Clean 38	7.84	92.00%	0.07	12.12	2.21	8.5%	40%	0.03	0.12
Shell Core Release Agent	Silcone Emulsion	8.17	50.00%	0.00	0.16	0.03	50.0%	40%	0.00	0.02
Total						2.28				2.52

Notes:

* The transfer efficiency information is from AP-42, Table 4.2.2.11-1 for air atomized spray applications (AP-42, 01/95).

Methodology:

PTE of VOC (lbs/day) = Max. Usage (gal/hr) x Density (lbs/gal) x Weight % VOC x 24 hr/day

PTE of VOC (tons/yr) = Max. Usage (gal/hr) x Density (lbs/gal) x Weight % VOC x 8760 hr/yr x 1 ton/2000 lbs

PTE of PM/PM10 before Control (lbs/hr) = Max. Usage (gal/hr) x Density (lbs/gal) x Weight % of Solids x (1-Transfer Efficiency)

PTE of PM/PM10 before Control (tons/yr) = Max. Usage (gal/hr) x Density (lbs/gal) x Weight % of Solids x (1-Transfer Efficiency) x 8760 hr/yr x 1 ton/2000 lbs

Core Wash

Product Name	Potential Usage (gal/yr)	Density (lbs/gal)	Weight % VOC	Weight % HAPs	PTE VOC (tons/yr)	PTE HAPs (tons/yr)
Isocote WCG 9097	512.00	11.52	0.10%	0.00%	0.003	0.00
Isocote TGS 020	15858.00	11.35	0.15%	0.00%	0.13	0.00
Velvaplast ZW 9075	731.00	17.85	0.05%	0.00%	0.003	0.00
Total					0.14	0.00

Methodolgy:

PTE VOC (tons/yr) = Potential Usage * Density (lbs/gal) * Weight % VOC * 1 ton / 2000 lbs

PTE HAPs (tons/yr) = Potential Usage * Density (lbs/gal) * Weight % HAPs * 1 ton / 2000 lbs