



Mitchell E. Daniels, Jr.
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**NOTICE OF 30-DAY PERIOD
FOR PUBLIC COMMENT**

Preliminary Findings Regarding the Renewal of a Federally Enforceable State Operating Permit

for Hoosier Hills Paving by James & Sons, Inc.
in Greene County

FESOP No.: F055-24006-00038

The Indiana Department of Environmental Management (IDEM) has received an application from Hoosier Hills Paving by James and Sons, Inc., located at Rural Route 4 Box 545, Bloomfield, Indiana, 47424, for the renewal of a Federally Enforceable State Operating Permit (FESOP) for the operation of a batch hot-mix asphalt plant. IDEM's Office of Air Quality (OAQ) issues this type of permit to regulate the operation of sources that release air pollutants.

IDEM has reviewed this application, and has developed preliminary findings, consisting of a draft permit and several supporting documents, that would allow Hoosier Hills Paving by James and Sons, Inc., to continue to operate a batch hot-mix asphalt plant. If this would operate 365 days a year, 24 hours a day, 7 days a week, it could potentially release 16,822.6 tons of PM, 2,365.9 tons of PM₁₀, 211.5 tons of CO, 30 tons of NO_x, 6.2 tons of SO₂, 6.4 tons of VOCs, and 3.9 tons of HAPs per year. The FESOP will limit emissions to less than 100 tons of VOCs, CO, and PM₁₀ per year, and less than 250 tons of PM per year. The permit requires production limits to limit the amount of air pollution that can be released.

This draft FESOP renewal does not contain any new equipment that would emit air pollutants; however, some conditions from previously issued permits/approvals have been corrected, changed or removed. This notice fulfills the public notice procedures to which those conditions are subject.

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

Bloomfield Eastern Greene County Public Library
125 South Franklin Street
Bloomfield, Indiana, 47424.

A copy of the preliminary findings is available on the Internet at: www.IN.gov/idem/permits/air/pending.html.

How can you participate in this process?

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

You may request that IDEM hold a public hearing about this permit. If adverse comments concerning the **air pollution impact** of this permit are received, with a request for a public hearing, IDEM may hold a public hearing. If a public hearing is held, IDEM will make a separate announcement of the date, time, and location of that hearing. At a hearing, you would have an opportunity to submit written comments, make verbal comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation or a request for a public hearing should be sent in writing to IDEM. If you do not want to comment at this time, but would like to be added to IDEM's mailing list to receive notice of future action related to this permit application, please contact IDEM. Please refer to permit number **F055-24006-00038** in all correspondence.

To Contact IDEM:

Angela Taylor
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204
(800) 451-6027, ask for extension 3-6867
Or dial directly: (317) 233-6867
E-mail: ataylor@idem.IN.gov

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

What will happen after IDEM makes a decision?

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

If you have any questions please contact Angela Taylor of my staff at the above address.

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

For additional information about air permits and how you can participate, please see IDEM's **Guide for Citizen Participation** and **Permit Guide** on the Internet at: www.IN.gov/idem/permits/guide.



Mitchell E. Daniels, Jr.
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DRAFT

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Thomas W. Easterly
Commissioner

Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

**Hoosier Hills Paving by James and Sons, Inc.
Rural Route 4, Box 545
Bloomfield, Indiana 47424**

(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.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

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 FESOP under 326 IAC 2-8.

Operation Permit No.: F055-24006-00038	
Issued by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: Expiration Date:

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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 through A.3 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 2-8-3(b)]

The Permittee owns and operates a stationary batch hot-mix asphalt plant.

Source Address:	Rural Route 4 Box 545, Bloomfield, Indiana 47424
Mailing Address:	Rural Route 4 Box 416, Bloomfield, IN 47424
General Source Phone Number:	812-825-3737
SIC Code:	2951
County Location:	Greene
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

One (1) batch hot-mix asphalt plant, with a maximum throughput capacity of 120 tons per hour, consisting of the following emission units:

- (a) Two (2) natural gas-fired oil heaters (identified as H-1 and H-2), each having a maximum heat input capacity of 0.852 MMBtu per hour. Both heaters use No. 2 fuel oil with a maximum sulfur content of 0.5% by weight as an alternate fuel.
- (b) One (1) natural gas-fired rotary dryer having a maximum heat input capacity of 66 MMBtu per and a maximum throughput capacity of 120 tons per hour. Particulate matter emissions are controlled by a cyclone and baghouse (identified as BH-01), exhausting at stack S-1.
- (c) One (1) batching tower pug mill with a maximum throughput capacity of 120 tons per hour. Emissions of particulate matter are controlled by a cyclone and baghouse (identified as BH-01), exhausting at stack S-1.
- (d) One (1) hot mix asphalt truck loading facility with a maximum capacity of 120 tons of product per hour.
- (e) One (1) aggregate storage area consisting of uncovered storage piles of sand and gravel.
- (f) Four (4) cold feed bins each with a maximum capacity of 20 tons, connected to one (1) screen with material transferred using mechanical conveyors.

- (g) Material handling and screening equipment capable of handling 120 tons of aggregate per hour and consisting of mechanical conveyors, elevators, screens, and mixers.
- (h) Two (2) asphalt cement tanks (identified as T-1 and T-2) with maximum capacities of 15,000 gallons and 20,000 gallons, respectively.

Under 40 CFR 60, Subpart I (NSPS), this is considered an existing affected hot mix source.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

- (a) Equipment powered by internal combustion engines of capacity equal to or less than 0.5 MMBtu per hour.
- (b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (c) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than 230,000 gallons per month.
- (d) Vessels storing lubricating oils, hydraulics oils, machining oils, and machining fluids.
- (e) Packaging lubricants and greases.
- (f) Filling drums, pails, or other packaging containers with lubricating oils, waxes, and greases.
- (g) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (h) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, and welding equipment.
- (i) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (j) Heat exchanger cleaning and repair.
- (k) Paved roads and parking lots with limited public access [326 IAC 6-4].

Under 40 CFR 60, Subpart I (NSPS), this is considered an existing affected hot mix source.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F055-24006-00038, 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, 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 [326 IAC 2-8-6]

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 [326 IAC 2-8-4(4)]

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 [326 IAC 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(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 [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

- (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 Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

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

- (b) The annual compliance certification report 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) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within 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.12 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,
Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
 - (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

- (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
- (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to F055-24006-00038 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (8) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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 nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported 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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation, Reissuance, or Termination [326 IAC 2-8-4(5)(C)]
[326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (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 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months 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 2-8 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.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)

77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) **Emission Trades [326 IAC 2-8-15(c)]**
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) **Alternative Operating Scenarios [326 IAC 2-8-15(d)]**
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

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

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 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
MC 61-53 IGCN 1003
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 administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][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. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) 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.24 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [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 2-8-4(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 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

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

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

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

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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

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

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on May 15, 2002. The plan is as follows:

Fugitive particulate matter emissions from plant roadways, parking lots, material handling/conveying, and storage piles shall be controlled by:

- (a) Paving all roadways, parking lots, and stockpile storage areas.
- (b) Applying a dust suppressant, such as water, to road surfaces and stockpiles when needed.

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

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

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:

- (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
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 2-1.1-1(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.

Testing Requirements [326 IAC 2-8-4(3)]

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

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

A 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

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

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for 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

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification 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).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

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

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

C.14 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.15 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

- (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; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:

- (1) monitoring data;
- (2) monitor performance data, if applicable; and
- (3) corrective actions taken.

C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (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 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 2-8-4(3)]

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (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.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and 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

- (c) 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.
- (d) 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).
- (e) 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.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 EMISSION UNITS OPERATION CONDITIONS

Emission Units Description:

- (a) Two (2) natural gas-fired oil heaters (identified as H-1 and H-2), each having a maximum heat input capacity of 0.852 MMBtu per hour. Both heaters use No. 2 fuel oil with a maximum sulfur content of 0.5% by weight as an alternate fuel.
- (b) One (1) natural gas-fired rotary dryer having a maximum heat input capacity of 66 MMBtu per and a maximum throughput capacity of 120 tons per hour. Particulate matter emissions are controlled by a cyclone and baghouse (identified as BH-01), exhausting at stack S-1.
- (c) One (1) batching tower pug mill with a maximum throughput capacity of 120 tons per hour. Emissions of particulate matter are controlled by a cyclone and baghouse (identified as BH-01), exhausting at stack S-1.
- (d) One (1) hot mix asphalt truck loading facility with a maximum capacity of 120 tons of product per hour.
- (e) One (1) aggregate storage area consisting of uncovered storage piles of sand and gravel.
- (f) Four (4) cold feed bins each with a maximum capacity of 20 tons, connected to one (1) screen with material transferred using mechanical conveyors.
- (g) Material handling and screening equipment capable of handling 120 tons of aggregate per hour and consisting of mechanical conveyors, elevators, screens, and mixers.

Under 40 CFR 60, Subpart I (NSPS), this is considered an existing affected hot mix source.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 FESOP Limitations [326 IAC 2-8]

- (a) Pursuant to 326 IAC 2-8-4, the permittee shall limit PM₁₀ emissions from the aggregate dryer and mixer to less than 0.027 pounds of PM₁₀ per ton of asphalt produced. This will limit the source-wide emissions of PM₁₀ to less than 100 tons per year and make 326 IAC 2-2 and 326 IAC 2-7 not applicable.
- (b) CO emissions from the batch mixer and dryer shall not exceed 0.4 pounds of CO per ton (lbs/ton), of hot mix asphalt produced. Furthermore, the amount of hot mix asphalt produced shall not exceed 494,940 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limits total source-wide CO emissions to less than 100 tons per year. Compliance with this limit will satisfy 326 IAC 2-8-4 and render the requirements of Part 70 (326 IAC 2-7) not applicable.
- (c) The VOC emissions from the use liquid binders in cold mix asphalt production shall be limited to 96.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. This shall be achieved by limiting the total VOC usage of any selected

binder to less than or equal to the stated limit in (e) for that binder. When more than one binder is used, the formula in (e)(6) must be applied so that the total VOC emitted does not exceed 96.9 tons per twelve (12) consecutive month period.

(d) Liquid binders used in the production of cold mix asphalt shall be defined as follows:

- (1) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.
- (2) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.
- (3) Cut back asphalt slow cure, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.
- (4) Emulsified asphalt with solvent, containing a maximum of 15% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume
- (5) Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating

(e) The liquid binder used in cold mix asphalt production shall be limited as follows:

- (1) Cutback asphalt rapid cure liquid binder usage shall not exceed 102 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis, with compliance determined at the end of each month.
- (2) Cutback asphalt medium cure liquid binder usage shall not exceed 138.42 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis, with compliance determined at the end of each month.
- (3) Cutback asphalt slow cure liquid binder usage shall not exceed 387.6 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis, with compliance determined at the end of each month.
- (4) Emulsified asphalt with solvent liquid binder usage shall not exceed 208.8 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis, with compliance determined at the end of each month.
- (5) Other asphalt with solvent liquid binder shall not exceed 3,876 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis, with compliance determined at the end of each month.
- (6) When more than one type of binder is used per twelve (12) month consecutive period, the total usage of all binders shall be adjusted to an equivalent amount of rapid cure liquid binder. The total equivalent rapid cure liquid binder usage shall be limited to less than or equal to 102 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (7) In order to determine the equivalent rapid cure liquid binder usage for each type of binder, use the following formula and divide the tons of VOC solvent used per year for each type of binder by the corresponding adjustment ratio listed in Table 1.1, Cutback Adjustment Ratios.

$$\frac{\text{Equivalent Rapid Cure Liquid Binder Usage (tons/year)}}{\text{Liquid Binder Usage (tons/year)}} = \frac{\text{VOC solvent used for each binder (tons/year)}}{\text{Adjustment Ratio}}$$

Table 1.1 Cutback Adjustment Ratios

Type of binder	VOC solvent used (tons/year)	Adjustment Ratio	Equivalent Rapid Cure Liquid Binder Usage (tons/year)
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	
emulsified asphalt		2.04	
other asphalt		38	

- (8) Compliance with these CO, PM₁₀ and VOC limits, combined with the potential emissions from all other emission units at this source, shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (PSD), not applicable to this source.

D.1.2 Miscellaneous Operations: Asphalt Paving [326 IAC 8-5-2]

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except:

- (a) penetrating prime coating;
- (b) stockpile storage; and
- (c) application during the months of November, December, January, February, and March.

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.1.4 Particulate Matter

In order to comply with Conditions D.1.1(a), the baghouse (identified as BH-01) for PM and PM₁₀ control shall be in operation at all times when the rotary dryer is in operation.

D.1.5 Testing Requirements [326 IAC 2-8-4(3)]

To document compliance with Conditions D.1.1(a), the Permittee shall perform PM and PM-10

testing within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup. These tests shall be performed using methods as approved by the Commissioner. PM-10 includes both filterable and condensable particulate matter. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.6 Visible Emissions Notations

- (a) Visible emission notations of the rotary dryer stack exhaust (identified as S-1) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take 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.

D.1.7 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the dryer at least once per day when the aggregate dryer/mixer is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 4.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.1.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Response to Excursions or Exceedances shall be initiated. For any failure with corresponding response steps and timetable not described in the Response to Excursions or Exceedances, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for

completion. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a violation of this permit.

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.1.9 Broken or Failed Cyclone Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). 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 Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16][326 IAC 8-9-6(a)(b)]

D.1.10 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1(b) the Permittee shall maintain monthly records of asphalt production.
- (b) To document compliance with Condition D.1.1(e), the Permittee shall maintain the following records to document VOC usage:
- (1) Amount and type of liquid binder used in the production of cold mix asphalt each month.
 - (2) Type and VOC content by weight of the liquid binder used in the production of cold mix asphalt each month.
 - (3) Amount of VOC used in the production of cold mix asphalt each month.

Records may include: delivery tickets, manufacturer's data, material safety data sheets (MSDS), and other documents necessary to verify the type and amount used. Test results of ASTM tests for asphalt cutback and asphalt emulsion may be used to document volatilization.

- (c) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the dryer stack exhaust (identified as stack S-1). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (i.e. the process did not operate that day).
- (d) To document compliance with Condition D.1.7, the Permittee shall maintain once per day records of the differential pressure. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (i.e. the process did not operate that day).

- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1(b) and D.1.1(e) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

D.1.12 General Provisions Relating to New Source Performance Standards (NSPS) for Hot Mix Asphalt Facilities [326 IAC 12-1][40 CFR 60, Subpart I][40 CFR 60, Subpart A]

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart I.

D.1.13 New Source Performance Standards (NSPS) for Hot Mix Asphalt Facilities [40 CFR 60, Subpart I]

Pursuant to 40 CFR Part 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart I as follows:

§ 60.90 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each hot mix asphalt facility. For the purpose of this subpart, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.

(b) Any facility under paragraph (a) of this section that commences construction or modification after June 11, 1973, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977, as amended at 51 FR 12325, Apr. 10, 1986]

§ 60.91 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) *Hot mix asphalt facility* means any facility, as described in §60.90, used to manufacture hot mix asphalt by heating and drying aggregate and mixing with asphalt cements. [51 FR 12325, Apr. 10, 1986]

§ 60.92 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:

- (1) Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf).

(2) Exhibit 20 percent opacity, or greater.

[39 FR 9314, Mar. 8, 1974, as amended at 40 FR 46259, Oct. 6, 1975]

§ 60.93 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.92 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Hoosier Hills Paving by James and Sons, Inc.
Source Address: Rural Route 4 Box 545, Bloomfield, Indiana 47424
Mailing Address: Rural Route 4 Box 416, Bloomfield, IN 47424
FESOP Permit No.: F055-24006-00038

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify) _____
- Report (specify) _____
- Notification (specify) _____
- Affidavit (specify) _____
- Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Hoosier Hills Paving by James and Sons, Inc.
Source Address: Rural Route 4 Box 545, Bloomfield, Indiana 47424
Mailing Address: Rural Route 4 Box 416, Bloomfield, IN 47424
FESOP Permit No.: F055-24006-00038

This form consists of 2 pages

Page 1 of 2

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
SEMI- ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: Hoosier Hills Paving by James and Sons, Inc.
Source Address: Rural Route 4 Box 545, Bloomfield, Indiana 47424
Mailing Address: Rural Route 4 Box 416, Bloomfield, IN 47424
FESOP Permit No.: F055-24006-00038

<input type="checkbox"/> Natural Gas Only <input type="checkbox"/> Alternate Fuel burned From: _____ To: _____
--

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature: _____
Printed Name: _____
Title/Position: _____
Date: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Hoosier Hills Paving by James and Sons, Inc.
Source Address: Rural Route 4 Box 545, Bloomfield, Indiana 47424
Mailing Address: Rural Route 4 Box 416, Bloomfield, IN 47424
FESOP Permit No.: F055-24006-00038
Facility: Asphalt Plant

Parameter: VOC Liquid Binder Usage

Limit: Cutback asphalt rapid cure liquid binder usage shall not exceed 102 tons of VOC solvent per twelve (12) consecutive month period. Cutback asphalt medium cure liquid binder usage shall not exceed 138.42 tons of VOC solvent per twelve (12) consecutive month period. Cutback asphalt slow cure liquid binder usage shall not exceed 387.6 tons of VOC solvent per twelve (12) consecutive month period. Emulsified asphalt with solvent liquid binder usage shall not exceed 208.8 tons of VOC solvent per twelve (12) consecutive month period. Other asphalt with solvent liquid binder shall not exceed 3,876 tons of VOC solvent per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION

Multiple Liquid Binder Solvent Quarterly Report

Source Name: Hoosier Hills Paving By James & Sons, Inc.
 Source Address: Rural Route 4, Box 545, Bloomfield, Indiana 47424
 Mailing Address: Rural Route 4, Box 416, Bloomfield, Indiana 47424
 FESOP No.: F055-24006-00038
 Facility: Asphalt Plant
 Parameter: VOC Liquid Binder Usage, Rapid Cure Equivalent
 Limit: 102 tons per year
 Years: 2007-2012
 Current Year: _____

Month	Type of Liquid binder	Solvent Usage This Month (tons)	Divisor	VOC usage This Month (tons) for each solvent	VOC rapid cure binder equivalent This Month (tons)	VOC rapid cure binder equivalent Previous 11 Months (tons)	This month + Previous 11 months = VOC rapid cure binder equivalent 12 Month Total (tons)
Month 1	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
Month 2	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
Month 3	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				

- No deviation occurred in this reporting period.
- Deviation/s occurred in this reporting period.
- Deviation has been reported on:

Submitted by: _____ Date: _____

Title / Position: _____ Phone: _____

Signature: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Hoosier Hills Paving by James and Sons, Inc.
Source Address: Rural Route 4 Box 545, Bloomfield, Indiana 47424
Mailing Address: Rural Route 4 Box 416, Bloomfield, IN 47424
FESOP Permit No.: F055-24006-00038
Facility: Asphalt Plant
Parameter: Asphalt Production
Limit: 490,940 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Hoosier Hills Paving by James and Sons, Inc.
Source Address: Rural Route 4 Box 545, Bloomfield, Indiana 47424
Mailing Address: Rural Route 4 Box 416, Bloomfield, IN 47424
FESOP Permit No.: F055-24006-00038

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period."</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

**Technical Support Document (TSD) for a Federally Enforceable State
Operating Permit (FESOP) Renewal**

Source Background and Description

Source Name: Hoosier Hills Paving By James & Sons, Inc.
Source Location: Rural Route 4, Box 545, Bloomfield, Indiana 47424
County: Greene
SIC Code: 2951
Operation Permit No.: F055-24006-00038
Permit Reviewer: APT

The Office of Air Quality (OAQ) has reviewed a FESOP application from Hoosier Hills Paving By James & Sons, Inc. (Hoosier Hills) relating to the operation of a batch hot-mix asphalt plant.

History

On November 30, 2006, Hoosier Hills Paving By James & Sons, Inc. submitted an application to the OAQ requesting to renew its operating permit. Hoosier Hills Paving By James & Sons, Inc. was issued a New Source FESOP (Minor PSD/EO) operating permit on August 27, 2002.

Permitted Emission Units and Pollution Control Equipment

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

One (1) batch hot-mix asphalt plant, with a maximum throughput capacity of 120 tons per hour, consisting of the following emission units:

- (a) Two (2) natural gas-fired oil heaters (identified as H-1 and H-2), each having a maximum heat input capacity of 0.852 MMBtu per hour. Both heaters use No. 2 fuel oil with a maximum sulfur content of 0.5% by weight as an alternate fuel.
- (b) One (1) natural gas-fired rotary dryer having a maximum heat input capacity of 66 MMBtu per and a maximum throughput capacity of 120 tons per hour. Particulate matter emissions are controlled by a cyclone and baghouse (identified as BH-01), exhausting at stack S-1.
- (c) One (1) batching tower pug mill with a maximum throughput capacity of 120 tons per hour. Emissions of particulate matter are controlled by a cyclone and baghouse (identified as BH-01), exhausting at stack S-1.

- (d) One (1) hot mix asphalt truck loading facility with a maximum capacity of 120 tons of product per hour.
- (e) One (1) aggregate storage area consisting of uncovered storage piles of sand and gravel.
- (f) Four (4) cold feed bins each with a maximum capacity of 20 tons, connected to one (1) screen with material transferred using mechanical conveyors.
- (g) Material handling and screening equipment capable of handling 120 tons of aggregate per hour and consisting of mechanical conveyors, elevators, screens, and mixers.
- (h) Two (2) asphalt cement tanks (identified as T-1 and T-2) with maximum capacities of 16,050 gallons and 26,510 gallons, respectively.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Equipment powered by internal combustion engines of capacity equal to or less than 0.5 MMBtu per hour.
- (b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (c) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than 230,000 gallons per month.
- (d) Vessels storing lubricating oils, hydraulics oils, machining oils, and machining fluids.
- (e) Packaging lubricants and greases.
- (f) Filling drums, pails, or other packaging containers with lubricating oils, waxes, and greases.
- (g) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (h) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, and welding equipment.
- (i) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (j) Heat exchanger cleaning and repair.
- (k) Paved roads and parking lots with limited public access [326 IAC 6-4].

Existing Approvals

The source has been operating under a New Source FESOP (Minor PSD/EO) operating permit issued on August 27, 2002, permit number F055-15634-00038, and no modifications or amendments have been made since it was issued.

Enforcement Issues

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S-1	Asphalt Plant	13.0	4.0	38,880	300

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 17).

Potential To Emit for the Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source 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.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	16,823
PM-10	2,366
SO ₂	6.2
VOC	>100
CO	211.5
NO _x	30.0

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
TOTAL	4.0

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOCs, CO and PM₁₀ are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Pursuant to 326 IAC 2-8, this source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict PTE to below Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP).
- (c) Fugitive Emissions
 This type of operation is not one of the twenty-eight (28) listed source categories. There are applicable New Source Performance Standards that were in effect on August 7, 1980; therefore, the fugitive emissions are counted toward determination of PSD applicability.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

Process/facility	Potential to Emit after Controls (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	Combined HAPs
Batch Mixer and Dryer	10.4	6.7	1.1	2	Less than or equal to 99	6.2	3.9
Hot Oil Heaters	0.11	0.11	3.79	0.04	0.63	1.07	Negligible
Storage Piles	0.79	0	----	----	----	----	----
Material Handling and Conveying	0.69	0.07	----	----	----	----	----
Paved Roads	0.74	0.15	----	----	----	----	----
Loadout	0.13	0.13	----	1.04	0.33	----	0.02
Cold Mix Cutback Asphalt	----	----	----	Less than or equal to 96.9	----	----	----
Total Emissions	12.86	7.16	4.89	Less than 100	Less than 100	7.27	3.92

County Attainment Status

The source is located in Greene County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Greene County has been classified as 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.
- (b) 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 emissions and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Greene County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions 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.
- (c) Greene County has been classified as attainment or unclassifiable in Indiana for all the other 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.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

Federal Rule Applicability

- (a) This source is subject to the New Source Performance Standard (NSPS), 40 CFR 60.90, Subpart I - Standards of Performance for Hot Mix Asphalt Facilities because it was constructed as a new source after June 11, 1973, and it manufactures hot mix asphalt by heating and drying aggregate and mixing with asphalt cements. This rule limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf), and the visible emissions from the plant shall not exceed twenty percent (20%) opacity.

The source can comply with these limits by using a baghouse to control particulate matter emissions to at or below 0.04 gr/dscf.

The natural gas-fired rotary dryer and hot mix asphalt facility is subject to the following portions of 40 CFR 60, Subpart I:

- (1) 40 CFR 60.90
- (2) 40 CFR 60.91
- (3) 40 CFR 60.92
- (4) 40 CFR 60.93

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart I.

- (b) This source is not subject to the New Source Performance Standard (NSPS), 40 CFR 60, Subpart Kb (326 IAC 12) - 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. The storage tanks are identified as T-1 and T-2. Tank T-1 is exempt from the General Provisions (Part 60, Subpart A) and from the limits of this subpart because it has a maximum capacity less than 75 m³ (19,817 gallons). Although Tank T-2 has a maximum capacity greater than 75 m³ (19,817 gallons) and less than 151 m³ (39,898 gallons), it is exempt from the General Provisions (Part 60, Subpart A) and from the limits of this subpart because it is used to store liquids with a maximum true vapor pressure less than 15.0 KPa (2.16 psi). Therefore, these requirements are not included in the permit.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this source.
- (d) The requirements of 40 CFR part 64, Compliance Assurance Monitoring, are not included in this permit. These requirements apply to a Part 70 source that involves a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, which meets the following criteria:
 - (1) The unit is subject to an emission limitation or standard for and applicable regulated air pollutant;
 - (2) The unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard; and
 - (3) The unit has a potential to emit before controls equal to or greater than the applicable Part 70 major source threshold for the regulated pollutant.

As a FESOP source, this source has accepted federally enforceable limits such that the requirements of 326 IAC 2-7 (Part 70) do not apply. Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable to this source and not included in the permit.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

- (a) The emissions of PM from the asphalt plant shall be limited to 0.04 grains per dry standard cubic foot. This is equivalent to a particulate matter emission rate of 13.3 pounds per hour (58.25 tons per year) at an exhaust flow rate of 38,880 cubic foot per minute (cfm). Compliance with this limit will make the source a minor source under PSD. Use of the baghouse (identified as BH-1) will ensure compliance with this limit.
- (b) Pursuant to 326 IAC 2-8-4(b) (FESOP), the VOC, CO and PM₁₀ emissions for the entire source are limited to less than 100 tons per year (VOC and CO), and 14.9 tons per year (PM₁₀) respectively. Compliance with these limits ensures that 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70) are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in Greene County which is not one of the listed counties in this rule, and the potential to emit all regulated pollutants is less than one hundred (100) tons per year so this source is not required to have a Part 70 Permit. Furthermore, the source does not emit lead into the ambient air at levels equal to or greater than twenty-five (25) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-7 (Part 70 Permit Program)

Pursuant to 326 IAC 2-8-4, the potential emissions from this source for all criteria pollutants will be limited below 100 tons/year. Therefore, the requirements of 326 IAC 2-7 do not apply.

326 IAC 2-8-4 (FESOP)

This source is required to have a Part 70 permit, as described in 326 IAC 2-7-2(a). However, this source has accepted federally enforceable limits such that the requirements of 326 IAC 2-7 (Part 70) do not apply. As a FESOP, unless otherwise specified in this permit, the source is subject to all applicable requirements of 326 IAC 2-8.

- (a) The unlimited potential to emit PM_{10} from this asphalt plant is greater than 100 tons per year. The source has agreed to limit emissions of PM_{10} from the entire source to less than 100 tons per year, by limiting the PM_{10} emissions from the aggregate dryer and mixer to less than 0.027 pounds of PM_{10} per ton of asphalt produced. This is equivalent to PM_{10} emissions for the dryer of less than 14.2 tons per twelve (12) consecutive month period. The PM_{10} emissions for the entire source are, therefore, limited to less than 14.9 tons per twelve (12) consecutive month period.
- (b) The unlimited potential to emit CO from this asphalt plant is greater than 100 tons per year. The source has agreed to limit the asphalt and CO emissions from the batch mixer and dryer to 99 tons per year. CO emissions from the batch mixer and dryer shall not exceed 0.4 pounds of CO per ton (lbs/ton), of hot mix asphalt produced. Furthermore, the amount of hot mix asphalt produced shall not exceed 494,940 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limits total source-wide CO emissions to less than 100 tons per year. Compliance with this limit will satisfy 326 IAC 2-8-4 and render the requirements of Part 70 (326 IAC 2-7) not applicable.
- (c) The VOC emissions from the use of liquid binders in cold mix asphalt production shall be limited to 96.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. This shall be achieved by limiting the total VOC usage of any selected binder to less than or equal to the stated limit in (e) for that binder during the last twelve (12) months. When more than one binder is used, the formula in (e) (6) must be applied so that the total VOC emitted does not exceed 96.9 tons per twelve (12) consecutive month period.
- (d) Liquid binders used in the production of cold mix asphalt shall be defined and limited as follows:
 - (1) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.
 - (2) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.
 - (3) Cut back asphalt slow cure, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.

- (4) Emulsified asphalt with solvent, containing a maximum of 15% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume
 - (5) Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating
- (e) The liquid binder used in cold mix asphalt production shall be limited as follows:
- (1) Cutback asphalt rapid cure liquid binder usage shall not exceed 102 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis, with compliance determined at the end of each month.
 - (2) Cutback asphalt medium cure liquid binder usage shall not exceed 138.42 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis, with compliance determined at the end of each month.
 - (3) Cutback asphalt slow cure liquid binder usage shall not exceed 387.6 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis, with compliance determined at the end of each month.
 - (4) Emulsified asphalt with solvent liquid binder usage shall not exceed 208.8 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis, with compliance determined at the end of each month.
 - (5) Other asphalt with solvent liquid binder shall not exceed 3876 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis, with compliance determined at the end of each month.
 - (6) When more than one type of binder is used per twelve (12) month consecutive period, the total usage of all binders shall be adjusted to an equivalent amount of rapid cure liquid binder. The total equivalent rapid cure liquid binder usage shall be limited to less than or equal to 102 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

In order to determine the equivalent rapid cure liquid binder usage for each type of binder, use the following formula and divide the tons of VOC solvent used per year for each type of binder by the corresponding adjustment ratio listed in the table that follows.

$$\begin{array}{l} \text{Equivalent Rapid Cure} \\ \text{Liquid Binder Usage} \\ \text{(tons/year)} \end{array} = \frac{\text{VOC solvent used for each binder (tons/year)}}{\text{Adjustment Ratio}}$$

(see Table 1.1 Cutback Adjustment Ratios, on the following page.)

Table 1.1 Cutback Adjustment Ratios

Type of binder	VOC solvent used (tons/year)	Adjustment Ratio	Equivalent Rapid Cure Liquid Binder Usage (tons/year)
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	
emulsified asphalt		2.04	
other asphalt		38	

Compliance with these limits combined with the potential emissions from all other emission units at this source shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (PSD) not applicable.

326 IAC 1-6-3 (Preventative Maintenance Plan)

This source is subject to 326 IAC 2-8-4(9) and must maintain a Preventative Maintenance Plan, as described in 326 IAC 1-6-3.

326 IAC 3-6 (Source Sampling Procedures)

This source is subject to 326 IAC 3-6 (Source Sampling Procedures). Pursuant to 326 IAC 3-6 (Source Sampling Procedures), emission tests subject to this rule shall be conducted in accordance with 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 the Indiana Department of Environmental Management (IDEM).

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) 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.

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4, the source shall not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is subject to the requirements of 326 IAC 6-5 because it was constructed after December 13, 1985 and is a source of fugitive particulate matter emissions. As required by this rule, the source submitted a Fugitive Particulate Matter Emission Control Plan on May 15, 2002. The plan is as follows:

Fugitive particulate matter emissions from plant roadways, parking lots, material handling/conveying, and storage piles shall be controlled by;

- (a) Paving all roadways, parking lots, and stockpile storage areas.
- (b) Applying a dust suppressant, such as water, to road surfaces and stockpiles when needed.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

This source has external storage vessels for liquids containing volatile organic compounds. However, these tanks (identified as T-1 and T-2) have maximum capacities less than 151 m³ (39,898 gallons), and are used to store liquids with a maximum true vapor pressure less than 10.0 KPa (1.52 psi). Furthermore, these tanks are not fixed roof tanks; therefore, 326 IAC 8-4-3 does not apply.

326 IAC 8-6-1 (Organic Solvent Emission Limitations)

This source is not located in Marion or Lake County, therefore 326 IAC 8-6-1 does not apply.

326 IAC 9-1-1 (Carbon Monoxide Emission Limits)

This source is not subject to this rule, as it does not contain one of the listed processes in 326 IAC 9-1-2 for which carbon monoxide limits have been established.

State Rule Applicability - Asphalt Plant

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the asphalt plant will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-3-2 (Particulate Emission Limitations, Work Practices and Control Technologies)

This source is subject to the more stringent New Source Performance Standard 40 CFR 60, Subpart I (326 IAC 12); therefore, the provisions of 326 IAC 6-3-2 do not apply.

326 IAC 7-1.1-2 (Sulfur Dioxide (SO₂) Emission Limitations)

The dryer and oil heaters are not subject to the provisions of 326 IAC 7-1.1-2, because the SO₂ emissions from these units are less than 25 tons per year.

326 IAC 8-1-6 (New Facilities - General Reduction Requirements)

Although the asphalt manufacturing facility has potential VOC emissions above the 25 tons per year threshold, this source is not subject to 326 IAC 8-1-6 because it is subject to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving).

326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving)

Pursuant to 326 IAC 8-5-2, no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than 7 percent oil distillate by volume of emulsion of any paving application except:

- (a) Penetrating prime coating;
- (b) Stockpile storage; and

- (c) Application during the months of November, December, January, February, and March.

Testing Requirements

To document compliance with the PM and PM₁₀ limits, the source is required to perform PM and PM₁₀ testing within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup. The tests shall be performed using methods as approved by the Commissioner. PM₁₀ includes filterable and condensable PM₁₀.

These stack tests are required to ensure compliance with 40 CFR 60, Subpart I, 326 IAC 2-8, and 326 IAC 2-2.

Compliance Requirements

Permits issued under 326 IAC 2-8 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 2-8-4. 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 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 compliance monitoring requirements applicable to this source are as follows:

1. The asphalt plant has applicable compliance monitoring conditions as specified below:
 - (a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the dryer at least once per day when the aggregate dryer/mixer is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 4.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C-Response to Excursions or Exceedences. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedences, shall be considered a deviation from this permit.

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

- (b) Daily visible emission notations of the dryer exhausting to (S-1) exhausts shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

- (c) 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.
- (d) 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.
- (e) 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.
- (f) 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
- (g) In the event that cyclone failure has been observed:
Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (h) In the event that bag failure has been observed:
 - (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion.
 - (2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency.

These monitoring conditions are necessary because the cyclone and baghouse are connected in series, and the aggregate dryer/burner (EU#1) must operate properly to ensure compliance with 326 IAC 12, 326 IAC 6.8-1-1, 326 IAC 6-8-2-7, and 326 IAC 2-8 (FESOP).

Recommendation

The staff recommends to the Commissioner that the FESOP 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 administratively complete FESOP application for the purposes of this review was received on November 30, 2006.

Conclusion

The operation of this hot mix asphalt plant shall be subject to the conditions of the attached FESOP No.: F055-24006-00038.

Appendix A: Emissions Calculations

Company Name: Natural Gas-fired Rotary Dryer
Address City IN Zip: Hoosier Hills Paving
 R.R. 4, Box 545, Bloomfield, Indiana 47424
Permit Number: F055-24006-00038
Plt ID: 055-00038
Reviewer: Angela Taylor
Date: June 13, 2007

Heat Input Capacity
 MMBtu/hr

660

578.2

Pollutant

	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.2	28.9	1.6	24.3

*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

The emissions of PM and PM10 from the Rotary Dryer are estimated using the AP-42 Chapter 11.1 emission factors for asphalt plants, and are shown on page 3. The emissions of SO₂, NOx, VOC and CO are estimated using the boiler emission factors from AP-42 Chapter 1.4, as shown above. These boiler emission factors are being used for these pollutants based on IDEM guidance.

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

Appendix A: Emissions Calculations

Company Name: Natural Gas-fired Rotary Dryer
Address City IN Zip: Hoosier Hills Paving
 R.R. 4, Box 545, Bloomfield, Indiana 47424
Permit Number: F055-24006-00038
PI# ID: 055-00038
Reviewer: Angela Taylor
Date: June 13, 2007

Maximum Capacity
 tons/hour

120.0

Emission Factor in lb/ton	Pollutant			
	SO2	NOx	VOC	CO
0.0046	0.0250	0.0082	0.4	
See ^A	See ^B	See ^C	See ^D	
Potential Emission in tons/yr	2.4	13.1	4.3	210.2

*Emission factor units are lb per ton of HMA produced.

^A Based on data for drum mix facilities, 50 percent of the fuel-bound sulfur, up to a maximum (as SO2) of 0.1 lb/ton of product, is expected to be retained in the product, with the remainder emitted as SO2.

^B References 24, 34, 46-47.

^C The VOC emission factors are equal to the TOC factors minus the methane emission factors; differences in values reported are due to rounding.

^D References 24, 34, 46-47, 49, 161, 204, 215-217, 282, 370, 378, 381. The CO emission factors represent normal plant operations without scrutiny of the burner design, operation, and maintenance.

Methodology

Potential Emissions in Tons/Yr = (Maximum capacity)*(8760 hr/yr)*(emission factor)*(1 ton/2000 lbs)

All emission factors are based on normal firing.

Emission Factors are from AP 42, Chapter 11.1, Tables 11.1-5, 11.1-6, (SCC 3-05-002-45) and (SCC 3-05-002-45).

The emissions of SO2, NOx, VOC and CO are from the AP-42 Chapter 11.1 emission factors for asphalt plants, specifically hot mix batch plants. These boiler emission factors are being used for these pollutants based on IDEM guidance. The emissions of PM and PM10 from the Rotary Dryer are estimated using the AP-42 Chapter 11.1 emission factors for asphalt plants, and are shown on page 3.

Appendix A: Emissions Calculations

Company Name: Natural Gas-fired Rotary Dryer
Address City IN Zip: Hoosier Hills Paving
 R.R. 4, Box 545, Bloomfield, Indiana 47424
Permit Number: F055-24006-00038
Pit ID: 055-00038
Reviewer: Angela Taylor
Date: June 13, 2007

Maximum Capacity	tons/hr
120	

Uncontrolled Emission Factors	
PM	32 lbs/ton
PM-10	4.5 lbs/ton
Total HAPs	0.0075 lbs/ton

Controlled Emission Factors	
PM	0.042 lbs/ton
PM-10	0.027 lbs/ton
Total HAPs	0.0075 lbs/ton

Uncontrolled	
Emissions (tons/yr)	
PM	16819.2
PM-10	2365.2
HAPs	3.9

Controlled	
Emissions (tons/yr)	
PM	22.1
PM-10	14.2
HAPs	3.9

Methodology:

Potential Emissions in Tons/Yr = (Maximum capacity)*(8760 hr/yr)*(emission factor)*(1 ton/2000 lbs)

* Emission factors for natural gas rotary dryers controlled with a fabric filter from AP-42 Chapter 11.1, Table 11.1-1, (SCC 3-05-002-45,-46, -47), are 0.027 lb/ton and 0.042 lbs/ton for PM-10 and PM, respectively. The emission factors shown above are those emission factors required to limit the source to less than 100 tons per year of PM-10.

* Emission factor for HAPs is from AP-42 Chapter 11.1, Table 11.1-9. (SCC 3-05-002-45,-46)

* The largest HAP is Xylene.

Appendix A: Emissions Calculations

Combustion of Fuel Oil No. 2, MMBTU/HR<100
 Two (2) Asphaltic Cement Heaters, each with a
 maximum heat input capacity of 0.852 MMBtu/hr

Company Name: Hoosier Hills Paving
 Address City IN Zip: R.R. 4, Box 545, Bloomfield, Indiana 47424
 Permit Number F055-24006-00038
 Pit ID: 055-00038
 Reviewer: Angela Taylor
 Date: June 13, 2007

Heat Input Capacity
 MMBtu/hr

106.6

Potential Throughput
 kgals/year

106.6

S = Weight % Sulfur

0.5

Emission Factor in lb/kgal	Pollutant			
	PM*	SO2	NO _x	CO
2.0	71 (142.0 S)	20.0	0.34	5.0
Potential Emission in tons/yr	0.107	3.785	1.066	0.267

*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu
 Potential Throughput (kgals/year) = Heat Input Capacity (MMBTU/hr) x 8,760 hrs/yr x 1 kgal/1,000 gal x 1 gal/0.140 MMBtu
 Emission Factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3, (1-02-005-02/03), (1-03-005-02/03), and (SCC 1-03-005-01/02/03) Supplement E 9/98 (see errata file)
 Potential Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Appendix A: Emissions Calculations
HAPS from Combustion of Fuel Oil No. 2, MMBTU/HR<100
 Two (2) Asphaltic Cement Heaters each with a maximum heat input capacity of 0.852 MMBtu/hr
Company Name: Hoosier Hills Paving
Address City IN Zip: R.R. 4, Box 545, Bloomfield, Indiana 47424
Permit Number F055-24006-00038
Plt ID: 055-00038
Reviewer: Angela Taylor
Date: June 13, 2007

Heat Input Capacity MMBtu/hr 106.6 Potential Throughput kgals/year 106.6 S = Weight % Sulfur 0.5

HAPs - Metals					
Emission Factor in lb/MMBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	2.99E-05	2.24E-05	2.24E-05	2.24E-05	6.72E-05

HAPs - Metals (continued)				
Emission Factor in lb/MMBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05
Potential Emission in tons/yr	2.24E-05	4.48E-05	2.24E-05	1.12E-04

Data are for distillate oil fired boilers, AP-42 chapter 1, SCC codes 1-01-005-01, 1-02-005-01, and 1-03-005-01. References 29-32, 40-44 and 83.

Methodology
 Potential Emission (tons/yr) = Heat Input Capacity (MMBtu/hr) x Emission Factor (lbs/MMBtu)/2,000 (lb/ton)
 1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu
 Emission Factors are from AP-42, Table 1.3-10.
 No data was available in AP-42 for organic HAPs.

Appendix A:

Emissions Calculations
Natural Gas Combustion Only, MMBTU/HR<100
Two (2) Asphaltic Cement Heaters, each with a maximum
heat input capacity of 0.852 MMBtu/hr

Company Name: Hoosier Hills Paving
Address City IN Zip: R.R. 4, Box 545, Bloomfield, Indiana 47424
Permit Number F055-24006-00038
Pit ID: 055-00038
Reviewer: Angela Taylor
Date: June 13, 2007

Heat Input Capacity
 MMBtu/hr

17

Potential Throughput
 MMCF/yr

14.9

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NO _x	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.014	0.057	0.004	0.746	0.041	0.627

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

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

Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

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

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

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

Appendix A: Emissions Calculations

One (1) hot mix asphalt truck loading facility (load out)

Company Name: Hoosier Hills Paving

Address City IN : R.R. 4, Box 545, Bloomfield, Indiana 47424

Permit Number F055-24006-00038

Plt ID: 055-00038

Reviewer: Angela Taylor

Date: June 13, 2007

Maximum Capacity
tons/hour
120.0

Pollutant

Emission Factor in lb/ton	Total PMA	Total HAPs (Volatile and PAH)	VOCb	CO
	5.22E-04	Volatile = 1.5% TOC PAH = 5.93% Organic PM	4.16E-03	1.35E-03
Potential Emission in tons/yr	0.274	0.049	2.055	0.709

*Emission factor units are lb/ton of HMA produced.

a Total PM, as measured by EPA Method 315 (EPA Method 5 plus the extractable organic particulate from the impingers). Total PM is assumed to be predominantly PM-2.5 since emissions consist of condensed vapors.

b Voc is figured as 94% of the TOC per AP-42.

Appendix A: Emissions Calculations

**One (1) hot mix asphalt truck loading facility (load out)
(Continued)**

Company Name: Hoosier Hills Paving

Address City IN: R.R. 4, Box 545, Bloomfield, Indiana 47424

Permit Number F055-24006-00038

Pit ID: 055-00038

Reviewer: Angela Taylor

Calculations

Date: June 13, 2007

$$PM/PM10\ Ef = 0.000181 + 0.00141(-V)e^{((0.0251)(T+460)-20.43)}$$

$$= 5.22E-04 \text{ lb PM or PM-10 per ton of asphalt mix produced}$$

where V = 0.5 asphalt volatility (default value of -0.5 used per AP-42)

hot mix asphalt (HMA) mix

temperature in degrees F (default

T = 325 value of 325 used per AP-42)

PM/PM10 = 0.27 tons/yr

Total PAH HAPs = 0.02 tons/yr

(5.93% of Organic PM emissions per AP-42)*

Phenol = 0.00 tons/yr

(1.18% of Organic PM emissions per AP-42)*

$$TOC\ Ef = 0.0172(-V)e^{((0.0251)(T+460)-20.43)}$$

$$= 4.16E-03 \text{ lb TOC per ton of asphalt mix produced}$$

where V = 0.5 asphalt volatility (default value of -0.5 used per AP-42)

hot mix asphalt (HMA) mix

temperature in degrees F (default

T = 325 value of 325 used per AP-42)

VOC = 2.05 tons/yr

(94% of TOC emissions per AP-42)

Worst Case Single HAP

(Xylenes) = 0.01 tons/yr

(0.49% of TOC emissions per AP-42)

Total Volatile HAPs = 0.03 tons/yr

(1.5% of TOC emissions per AP-42)

$$CO\ Ef = 0.00558(-V)e^{((0.0251)(T+460)-20.43)}$$

$$= 1.35E-03 \text{ lb CO per ton of asphalt mix produced}$$

where V = 0.5 asphalt volatility (default value of -0.5 used per AP-42)

hot mix asphalt (HMA) mix

temperature in degrees F (default

T = 325 value of 325 used per AP-42)

CO = 0.71 tons/yr

Appendix A: Emissions Calculations
 Potential to Emit Calculations for Paved Roads

Company Name: Hoosier Hills Paving
Address City IN Zip: R.R. 4, Box 545, Bloomfield, Indiana 47424
Permit Number: F055-24006-00038
Plt. ID: 055-00038
Reviewer: Angela Taylor
Date: June 13, 2007

Vehicle Type	Weight (tons)	Round Trip Distance (miles)	Number of Trips per hour	Total Miles per year	Miles traveled as Fraction of total	Truck Weight fraction
Loaders	12.5	0.114	22.8	22,769	0.644	8.05
Tri-Axel Dump Trucks	22	0.123	4.6	4,956	0.140	3.08
Quad Dump Trucks	24.5	0.123	1	1,077	0.030	0.75
Semi-Tractor/Tankers	25.5	0.123	0.3	323	0.009	0.23
Tri-Axel Dump Trucks	22	0.123	4.8	5,172	0.146	3.22
Quad Dump Trucks	24.5	0.123	1	1,077	0.030	0.75
Total				35,376	1	16

Average Vehicle Weight = 16 tons

	PM-10	PM
k (lbs/vmt) =	0.016	0.082
sL =	0.015	0.015
W =	16	16
E =	0.0082	0.0420
Miles traveled per year =	35376	35376
Emissions (tons/year) =	0.145	0.743

Methodology

Equation: $E = k (sL/2)^{0.65} (W/3)^{1.5}$

where:
 E = particulate emission factor (having units matching the units of k)
 k = base emission factor for particle size range and units of interest (see below)
 sL = road surface silt loading (grams per square meter) (g/m²)
 W = average weight (tons) of the vehicles traveling the road

Equation is from AP-42, Chapter 13.2.1 (Paved Roads)

Appendix A: Emission Calculations
 Potential to Emit Calculations for Storage Piles
 Company Name: Hoosier Hills Paving
 Address City IN Zip: R.R. 4, Box 545, Bloomfield, Indiana 47424
 Permit Number F055-24006-00038
 Pit ID: 055-00038
 Reviewer: Angela Taylor
 Date: June 13, 2007

$$E_f = \frac{1.7 \cdot (s/1.5) \cdot (365-p)}{235 \cdot (f/15)}$$

where:
 s = 2.5 % silt for sand
 s = 2.5 % silt for gravel
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % of wind greater than or equal to 12 mph

E_f = 2.89 lb/acre/day for sand
 E_f = 2.89 lb/acre/day for gravel

$$E_p (\text{storage}) = \frac{E_f \cdot sc \cdot (20 \text{ cuft/ton}) \cdot (365 \text{ day/yr})}{(2000 \text{ lb/ton}) \cdot (43560 \text{ sqft/acre}) \cdot (25 \text{ ft})}$$

sc = 600 tons storage capacity for sand
 sc = 600 tons storage capacity for gravel

E_p = 0.006 tons/yr for sand
 E_p = 0.006 tons/yr for gravel

E_p Total = 0.012 tons/yr of PM

PM-10 = 35% of PM:

E_p = 0.0020 tons/yr for sand
 E_p = 0.0020 tons/yr for gravel

50% is emitted after controls

E_p Total = 0.0041 tons/yr of PM-10

PM = 0.01 tons/yr
 PM-10 = 0.00 tons/yr

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and US EPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

Material	Silt Content (wt %)	Pile Size (acres)	Storage Capacity (tons)	PM Emissions (tons/yr)	PM-10 Emissions (tons/yr)
Sand	2.5	0.75	600	0.40	0.00
Gravel	2.5	0.75	600	0.40	0.00
Total				0.79	0.00

Sample Calculation:

$$\text{Emissions (storage)} = \frac{E_f \cdot (\text{Pile Size in acres}) \cdot (365 \text{ day/yr})}{(2,000 \text{ lb/ton})}$$

$$E_f = \frac{1.7 \cdot (s/1.5) \cdot (365-p)}{235 \cdot (f/15)}$$

$$= 1.16 \text{ lb/acre/day}$$

where s = 2.5 % silt
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % of wind greater than or equal to 12 mph

Appendix A: Emission Calculations
Potential to Emit Calculations for Conveying and Handling
Company Name: Hoosier Hills Paving
Address City IN Zip: R.R. 4, Box 545, Bloomfield, Indiana 47424
Permit Number F055-24006-00038
Plt ID: 055-00038
Reviewer: Angela Taylor
Date: June 13, 2007

Handle: 120 tons/hr

$$E_f = .0032 * \frac{(U/5)^{1.3} * k}{(M/2)^{1.4}}$$

where:

$k_{PM10} =$ 0.35 (particle size multiplier)
 $k_{PM} =$ 0.74 (particle size multiplier)
 $M =$ 4 % moisture
 $U =$ 12 mph mean wind speed (worst case)

$E_{f_{PM}} =$ 0.0028 lb/ton
 $E_{f_{PM10}} =$ 0.0013 lb/ton

 $PM =$ 1.47 tons/yr
 $PM-10 =$ 0.15 tons/yr

Methodology:

Use the above equation to determine the emission factor (Ef).
Then, (Ef lbs/ton)*(120 tons/hr)*(8760 hr/yr)*(1 ton/2000 lbs)
The emission factor equation was taken from AP-42, Chapter 13.2.4.

Appendix A: Emission Calculations

Potential to Emit Calculations for Storage Piles

Company Name: Hoosier Hills Paving

Address City IN Zip: R.R. 4, Box 545, Bloomfield, Indiana 47424

Permit Number F055-24006-00038

Plt ID: 055-00038

Reviewer: Angela Taylor

Date: June 13, 2007

HMA Production/Max Capacity	
120	tons/hr

*Uncontrolled Emissions in tons/year							
Pollutant	PM	PM-10	SO2	NOx	VOC	CO	HAPs
Batch Mixer and Dryer	16819.20	2365.20	2.40	28.90	4.30	210.20	3.90
Heaters	0.11	0.11	3.79	1.07	0.04	0.63	negligible
Storage	0.79	0.00	-----	-----	-----	-----	-----
Loadout	0.27	0.27	-----	-----	2.06	0.71	0.05
Conveying	1.47	0.15	-----	-----	-----	-----	-----
Paved Roads	0.74	0.15	-----	-----	-----	-----	-----
Total =	16822.58	2365.88	6.19	29.97	6.40	211.54	3.95

* Uncontrolled emissions are figured using the worst case scenario or the method yielding the highest emission rate.

Controlled Emissions in tons/year							
Pollutant	PM	PM-10	SO2	Nox	VOC	CO	HAPs
Batch Mixer and Dryer	22.1	14.2	2.4	28.9	4.3	210.2	3.9
Heaters	0.11	0.11	3.79	1.07	0.04	0.63	negligible
Storage	0.79	0.00	-----	-----	-----	-----	-----
Loadout	0.27	0.27	-----	-----	2.06	0.71	0.05
Conveying	1.47	0.15	-----	-----	-----	-----	-----
Paved Roads	0.74	0.15	-----	-----	-----	-----	-----
Total =	25.5	14.9	6.2	30.0	6.4	211.5	3.9

Total PM-10 emissions limited to 99.98 tons/year.

Baghouse Control Efficiency 97.05%

Controlled Emission Factors	
PM	0.042 lbs/ton
PM-10	0.027 lbs/ton

Appendix A: Emissions Calculations

Natural Gas-fired Rotary Dryer

Company Name: Hoosier Hills Paving

Address City IN Zip: R.R. 4, Box 545, Bloomfield, Indiana 47424

Permit Number F055-24006-00038

Plt ID: 055-00038

Reviewer: Angela Taylor

Date: June 13, 2007

Limited HMA Production
tons/hour

56.5

Pollutant

Emission Factor in lb/ton	SO2	NOx	VOC	CO
	0.0046 See A	0.0250 See B	0.0082 See C	0.4 See D
Potential Emission in tons/yr	1.1	6.2	2.0	98.988

*Emission factor: units are lb per ton of HMA produced.

A Based on data for drum mix facilities, 50 percent of the fuel-bound sulfur, up to a maximum (as SO2) of 0.1 lb/ton of product, is expected to be retained in the product, with the remainder emitted as SO2.

B References 24, 34, 46-47.

C The VOC emission factors are equal to the TOC factors minus the methane emission factors; differences in values reported are due to rounding.

D References 24, 34, 46-47, 49, 161, 204, 215-217, 282, 370, 378, 381. The CO emission factors represent normal plant operations without scrutiny of the burner design, operation, and maintenance.

Methodology

Potential Emissions in Tons/Yr = (Limited HMA Production)*(8760 hr/yr)*(emission factor)*(1 ton/2000 lbs)

All emission factors are based on normal firing.

Emission Factors are from AP 42, Chapter 11.1, Tables 11.1-5, 11.1-6, (SCC 3-05-002-45) and (SCC 3-05-002-45).

The emissions of SO2, NOx, VOC and CO are from the AP-42 Chapter 11.1 emission factors for asphalt plants, specifically hot mix batch plants. These boiler emission factors are being used for these pollutants based on IDEM guidance. The emissions of PM and PM10 from the Rotary Dryer are estimated using the AP-42 Chapter 11.1 emission factors for asphalt plants, and are shown on page 14.

Appendix A:

Emissions Calculations

Company Name: Natural Gas-fired Rotary Dryer
Address City IN Zip: Hoosier Hills Paving
 R.R. 4, Box 545, Bloomfield, Indiana 47424
Permit Number F055-24006-00038
Pit ID: 055-00038
Reviewer: Angela Taylor
Date: June 13, 2007

Limited HMA Production	tons/hr
56.5	

Uncontrolled Emission Factors	
PM	32 lbs/ton
PM-10	4.5 lbs/ton
Total HAPs	0.0075 lbs/ton

Controlled Emission Factors	
PM	0.042 lbs/ton
PM-10	0.027 lbs/ton
Total HAPs	0.0075 lbs/ton

Uncontrolled		Controlled	
Emissions (tons/yr)	PM	PM-10	HAPs
	7919.04	1113.615	3.9

Controlled		Controlled	
Emissions (tons/yr)	PM	PM-10	HAPs
	10.4	6.7	3.9

Methodology:

Potential Emissions in Tons/Yr = (Limited HMA Production)*(8760 hr/yr)*(emission factor)*(1 ton/2000 lbs)

* Emission factors for natural gas rotary dryers controlled with a fabric filter from AP-42 Chapter 11.1, Table 11.1-1, (SCC 3-05-002-45,-46, -47), are 0.027 lb/ton and 0.042 lbs/ton for PM-10 and PM, respectively. The emission factors shown above are

* Emission factor for HAPs is from AP-42 Chapter 11.1, Table 11.1-9. (SCC 3-05-002-45,-46)

* The largest HAP is Xylene.

Appendix A: Emissions Calculations

One (1) hot mix asphalt truck loading facility (load out)

Company Name: Hoosier Hills Paving

Address City IN: R.R. 4, Box 545, Bloomfield, Indiana 47424

Permit Number F055-24006-00038

Pit ID: 055-00038

Reviewer: Angela Taylor

Date: June 13, 2007

Limited HMA Production

tons/hour

56.5

Emission Factor in lb/ton	Pollutant			
	Total PMa	Total HAPs (Volatile and PAH)	VOCb	CO
	5.22E-04	Volatile = 1.5% TOC PAH = 5.93% Organic PM	4.16E-03	1.35E-03
Potential Emission in tons/yr	0.129	0.017	1.029	0.334

Methodology

All Emission factors are based on normal load out procedures and 8760 hours of use.

Emission Factors from AP-42, Chapter 11.1, Tables 11.1-14, 11.1-15, and 11.1-16.

EF = emission factor; V = asphalt volatility; T = asphalt temperature

Total PMb EF = $0.000181 + 0.00141(-V)e^{((0.0251)(T + 460) - 20.43)}$

Organic PMc EF = $0.00141(-V)e^{((0.0251)(T + 460) - 20.43)}$

TOCd EF = $0.0172(-V)e^{((0.0251)(T + 460) - 20.43)}$

CO EF = $0.00558(-V)e^{((0.0251)(T + 460) - 20.43)}$

(V = asphalt volatility as determined by ASTM Method D2872-88; Reference 1, Tables 4-27 through 4-31, 4-34 through 4-36, and 4-38 through 4-41.) (SCC 3-05-002-14)

Emission (tons/yr) = $A \times EF \times (1-ER/100)$

where: E = emissions; A = activity rate (56.5 tons/hr X 8760 hrs/yr); EF = emission factor, and ER = overall emission reduction efficiency, %. Regional- or site-specific data for asphalt volatility should be used, whenever possible; otherwise, a default value of -0.5 should be used for V in these equations. T = HMA mix temperature in °F. Site-specific temperature data should be used, whenever possible; otherwise a default temperature of 325°F can be used.

Emissions for Total HAP = (TOC X 1.5%) + (Organic PM X 5.93)

Appendix A: Emission Calculations
Potential to Emit Calculations for Conveying and Handling
Company Name: Hoosier Hills Paving
Address City IN Zip: R.R. 4, Box 545, Bloomfield, Indiana 47424
Permit Number F055-24006-00038
Pit ID: 055-00038
Reviewer: Angela Taylor
Date: June 13, 2007

Handle: 56.5 tons/hr

$$E_f = .0032 * \frac{(U/5)^{1.3} * k}{(M/2)^{1.4}}$$

where:

$k_{PM10} =$ 0.35 (particle size multiplier)
 $k_{PM} =$ 0.74 (particle size multiplier)
 $M =$ 4 % moisture
 $U =$ 12 mph mean wind speed (worst case)

$E_{f_{PM}} =$ 0.0028 lb/ton
 $E_{f_{PM10}} =$ 0.0013 lb/ton

 $PM =$ 0.69 tons/yr
 $PM-10 =$ 0.07 tons/yr

Methodology:

Use the above equation to determine the emission factor (Ef).
 Then, (Ef lbs/ton)*(56.5 tons/hr)*(8760 hr/yr)*(1 ton/2000 lbs)
 The emission factor equation was taken from AP-42, Chapter 13.2.4.

Appendix A: Emission Calculations
Potential to Emit Calculations for Storage Piles
Company Name: Hoosier Hills Paving
Address City IN Zip: R.R. 4, Box 545, Bloomfield, Indiana 47424
Permit Number F055-24006-00038
Plt ID: 055-00038
Reviewer: Angela Taylor
Date: June 13, 2007

Limited HMA Production

56.5 tons/hr

*Uncontrolled Emissions in tons/year with Limited HMA Production							
--	--	--	--	--	--	--	--

Pollutant	PM	PM-10	SO2	NOx	VOC	CO	HAPs
Batch Mixer and Dryer	7919.04	1113.62	1.10	6.20	2.00	210.20	3.90
Heaters	0.11	0.11	3.79	1.07	0.04	0.63	negligible
Storage	0.79	0.00	-----	-----	-----	-----	-----
Loadout	0.27	0.27	-----	-----	1.04	0.33	0.02
Conveying	0.69	0.07	-----	-----	-----	-----	-----
Paved Roads	0.74	0.15	-----	-----	-----	-----	-----
Total =	7921.64	1114.22	4.89	7.27	3.08	211.16	3.92

* Uncontrolled emissions are figured using the worst case scenario or the method yielding the highest emission rate.

Controlled Emissions in tons/year with Limited Hma Production							
---	--	--	--	--	--	--	--

Pollutant	PM	PM-10	SO2	Nox	VOC	CO	HAPs
Batch Mixer and Dryer	10.4	6.7	1.1	6.2	2	99.0	3.9
Heaters	0.11	0.11	3.79	1.07	0.04	0.63	negligible
Storage	0.79	0.00	-----	-----	-----	-----	-----
Loadout	0.13	0.13	-----	-----	1.04	0.33	0.02
Conveying	0.69	0.07	-----	-----	-----	-----	-----
Paved Roads	0.74	0.15	-----	-----	-----	-----	-----
Total =	12.9	7.1	4.9	7.3	3.1	99.9	3.9

Total PM-10 emissions limited to 99.98 tons/year.

Total CO emissions limited to 99.9 tons/ year

Baghouse Control Efficiency 97.05%

Controlled Emission Factors	
-----------------------------	--

PM	0.042 lbs/ton
PM-10	0.027 lbs/ton