



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 30, 2009

RE: R-Mix, LLC / 177-26904-05220

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

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot12/03/07



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FEDERALLY ENFORCEABLE STATE OPERATING PERMIT RENEWAL

OFFICE OF AIR QUALITY

R-Mix, LLC
2583 South State Road #1
Cambridge City, Indiana 47327

(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.

This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-8-11.1, applicable to those conditions

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.

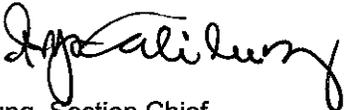
Operation Permit No.: F177-26904-05220	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 30, 2009 Expiration Date: April 30, 2019

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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 drum hot-mix asphalt manufacturing plant.

Source Address:	2583 South State Road #1, Cambridge City, IN 47327
Mailing Address:	2583 South State Road #1, Cambridge City, IN 47327
General Source Phone Number:	(812) 299-0464
SIC Code:	2951
County Location:	Wayne
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset 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:

- (a) One (1) aggregate dryer/mixer, identified as the MIXER, constructed in 2002, with a maximum throughput capacity of one hundred ten (110) tons per hour, having a burner with a maximum heat input capacity of forty and one tenth (40.1) million British thermal units per hour (MMBtu/hr), using No. 2 distillate fuel oil as its primary fuel, and recycled fuel oil and natural gas as backup fuels, equipped with a Venturi scrubber for particulate control, and exhausting through stack SV-1.
- (b) Material Handling and conveying operations, constructed in 2002, uncontrolled and exhausting to the atmosphere, and consisting of the following:
 - (1) One (1) drag conveyor, with a maximum capacity of one hundred fifty (150) tons per hour.
 - (2) Three (3) cold feed bins, with a maximum capacity of twenty (20) tons, each, for a total aggregate holding capacity of sixty (60) tons; and
 - (3) One (1) silo, with a maximum capacity of one hundred (100) tons.

Under 40 CFR 60.90, Subpart I - New Source Performance Standards for Hot Mix Asphalt Facilities, this is considered an affected hot-mix asphalt facility.

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) One (1) liquid asphalt cement hot oil heating system, consisting of the following:

- (1) One (1) natural gas-fired hot oil heater, identified as HEATER, constructed in 2002, with a maximum heat input capacity of 0.45 MMBtu/hr, uncontrolled and exhausting to the atmosphere;
 - (2) One (1) liquid asphalt storage tank, identified as TANK AC1, approved for construction in 2008, with a maximum storage capacity of 15, 000 gallons; and
 - (3) One (1) liquid asphalt storage tank, identified as TANK AC2, approved for construction in 2009, with a maximum storage capacity of 15, 000 gallons;
- (b) One (1) recycled fuel oil storage tank, identified as Tank RF, constructed in 2003, with a maximum capacity of 9,000 gallons;
- (c) One (1) No. 2 fuel oil storage tank, identified as TANK FO, constructed in 2003, with a maximum capacity of 15,000 gallons; and
- (d) Paved roads and parking lots with public access. [326 IAC 6-5]

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, F177-26904-05220, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

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 and Enforcement 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 and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Compliance and Enforcement Branch)
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 and Enforcement 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 F177-26904-05220 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.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 and Enforcement Branch, 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 and 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
 - (1) Submitted at least 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee 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
Permit Administration and Support Section, 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.

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

The application which shall be submitted by the Permittee does require the certification 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 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) Pursuant to 326 IAC 2-2 (PSD), 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.
- (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.2 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.3 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.4 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.5 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.6 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 attached plan as in Attachment A.

C.7 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.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. 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 Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

C.9 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) 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.10 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.11 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 or ninety (90) days of initial start-up, whichever is later. 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 and Enforcement 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.12 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.13 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.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.15 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.16 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.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 or ninety (90) days of initial start-up, whichever is later.

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 and Enforcement Branch, 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 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Hot-Mix Asphalt Plant

- (a) One (1) aggregate dryer/mixer, identified as the MIXER, constructed in 2002, with a maximum throughput capacity of one hundred ten (110) tons per hour, having a burner with a maximum heat input capacity of forty and one tenth (40.1) million British thermal units per hour (MMBtu/hr), using No. 2 distillate fuel oil as its primary fuel, and recycled fuel oil and natural gas as backup fuels, equipped with a Venturi scrubber for particulate control, and exhausting through stack SV-1.
- (b) Material Handling and conveying operations, constructed in 2002, uncontrolled and exhausting to the atmosphere, and consisting of the following:
 - (1) One (1) drag conveyor, with a maximum capacity of one hundred fifty (150) tons per hour.
 - (2) Three (3) cold feed bins, with a maximum capacity of twenty (20) tons, each, for a total aggregate holding capacity of sixty (60) tons; and
 - (3) One (1) silo, with a maximum capacity of one hundred (100) tons.

Under 40 CFR 60.90, Subpart I - New Source Performance Standards for Hot Mix Asphalt Facilities, this is considered an affected hot-mix asphalt facility.

(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 PSD Limits [326 IAC 2-2]

PM emissions from the dryer/mixer shall not exceed forty-nine and fifty hundredths (49.50) pounds of PM per hour.

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

D.1.2 FESOP and PSD Limits [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall not use slag as an aggregate additive in its hot mix asphalt operations.

Compliance with this requirement, combined with the potential SO₂ emissions from all other emission units at this source, shall limit the source-wide total potential to emit SO₂ to less than one hundred (100) tons per twelve (12) consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.3 FESOP Limits [326 IAC 2-8-4] [326 IAC 2-2]

- (a) PM10 emissions from the dryer/mixer shall not exceed twenty and sixty-eight hundredths (20.68) pounds of PM10 per hour.
- (b) PM2.5 emissions from the dryer/mixer shall not exceed twenty and sixty-eight hundredths (20.68) pounds of PM2.5 per hour.
- (c) NOx emissions from the dryer/mixer shall not exceed six and five hundredths (6.05) pounds of NOx per hour.
- (d) VOC emissions from the dryer/mixer shall not exceed three and fifty-two hundredths (3.52) pounds of VOC per hour.
- (e) CO emissions from the dryer/mixer shall not exceed fourteen and thirty hundredths (14.30) pounds of CO per hour.

Compliance with these limits, combined with the potential to emit PM10, PM2.5, NOx, VOC and CO from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5, NOx, VOC and CO to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.

D.1.4 Particulate Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Matter Emission Limitations except Lake County), particulate matter (PM) emissions from the aggregate dryer/mixer shall not exceed three hundredths (0.03) grains per dry standard cubic foot (gr/dscf).

D.1.5 Fuel Limitations [326 IAC 2-8-4][326 IAC 2-2] [326 IAC 2-4.1]

The fuel combusted in the dryer/mixer burner and all other combustion equipment shall be limited as follows:

- (a) The sulfur content of the No.2 and recycled fuel oils shall, each, not exceed five tenths percent (0.5%) by weight;
- (b) The ash content of the recycled fuel oil shall not exceed one and fifty hundredths percent (1.50%) by weight.
- (c) The lead content of the recycled fuel oil shall not exceed two thousandths percent (0.002 %) by weight;
- (d) The chlorine content of the recycled fuel oil shall not exceed six hundredths percent (0.06 %) by weight;
- (e) The HCl emissions from the dryer/mixer burner shall not exceed four (4.0) pounds of HCl per one thousand (1000) gallons of recycled fuel oil burned, based on a chlorine content limit of six hundredths percent (0.06 %); and
- (f) Single Fuel Usage Limitations:
When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer burner and all other combustion equipment, the usage of fuel shall be limited as follows:
 - (1) Natural gas usage shall not exceed three hundred fifty-five (355) million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month;

- (2) No. 2 fuel oil usage shall not exceed 2,537,271 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month;
 - (3) Recycled fuel oil usage shall not exceed 2,335,175 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month; and
- (g) Multiple Fuel Usage Limitation:
When combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner and all other combustion equipment, emissions from the dryer/mixer and all other combustion equipment shall be limited as follows:
- (1) Sulfur dioxide (SO₂) emissions from the dryer/mixer and all other combustion equipment shall be less than one hundred (100) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits, combined with the potential emissions from all other emission units at this source, shall limit the source-wide total potential to emit SO₂ to less than one hundred (100) tons per twelve (12) consecutive month period, each, HCl to less than ten (10) tons per twelve (12) consecutive month period, and any combination of HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (PSD), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable.

D.1.6 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1][326 IAC 7-2-1]

- (a) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the one hundred (100) million Btu per hour burner for the aggregate dryer shall be limited to five tenths (0.5) pounds per million Btu heat input when using distillate oil (including No. 2 and recycled fuel oils).
- (b) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.1.7 Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 2-8]

Pursuant to 326 IAC 2-8 (FESOP), the Permittee shall not manufacture or otherwise handle cut back asphalt or cold-mix asphalt at this asphalt plant. If after issuance of this permit, the Permittee decides to manufacture or handle cold mix asphalt, the Permittee shall obtain approval from IDEM, OAQ before any such operations begin.

D.1.8 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 the crushing, screening, and conveying operations and their control device(s), and for the and mixer/dryer unit and its control device.

Compliance Determination Requirements

D.1.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.1.1(b), D.1.2 (b) and D.1.2(c), the Permittee shall perform PM, PM_{2.5} and PM₁₀ testing for the Venturi scrubber within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be

conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

D.1.10 Particulate Control

In order to comply with Conditions D.1.1(b), D.1.2 (b), D.1.2(c), and D.1.3, the Venturi scrubber for the dryer/mixer shall be in operation and control emissions from the dryer/mixer at all times when the dryer/mixer is in operation.

D.1.11 Multiple Fuel Usage Limitation

(a) In order to comply with Condition D.1.5(g) when combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner and all other combustion equipment, the Permittee shall limit fuel usage in the dryer/mixer burner and all other combustion equipment according to the following formulas:

(1) Sulfur dioxide emission calculation

$$S = \frac{G(E_G) + O(E_O) + R(E_R)}{2,000 \text{ lbs/ton}}$$

where:

S = tons of sulfur dioxide emissions for 12-month consecutive period

G = million cubic feet of natural gas used in last 12 months

O = gallons of No. 2 fuel oil used in last 12 months with less than or equal to 0.5% sulfur content

R = gallons of recycled fuel oil used in last 12 months with less than or equal to 0.5% sulfur content

Emission Factors for Sulfur dioxide

E_G = 0.6 pounds/million cubic feet of natural gas

E_O = 71.0 pounds/1000 gallons of No. 2 fuel oil

E_R = 73.5 pounds/1000 gallons of recycled fuel oil

D.1.12 Sulfur Dioxide (SO₂) Emissions and Sulfur Content

Compliance with the sulfur dioxide emissions and sulfur content limitations in Conditions D.1.5(a), D.1.5(g), and D.1.6(a) shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate compliance with sulfur dioxide emissions and sulfur content limitations by:

(1) Providing vendor analysis of heat content and sulfur content of fuel delivered, if accompanied by a vendor certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the dryer/mixer, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.13 Ash Content, Lead Content, Chlorine Content, and Hydrogen Chloride (HCl) Emissions

- (a) In order to comply with Conditions D.1.5(b), the Permittee shall demonstrate that the ash content of the fuel used for the dryer/mixer burner all other fuel combustion equipment does not exceed one and fifty hundredths percent (1.50%) by weight, when combusting recycled fuel oil, by providing a vendor analysis of fuel delivered accompanied by a vendor certification.
- (b) In order to comply with Conditions D.1.5(c), the Permittee shall demonstrate that the lead content of the fuel used for the dryer/mixer burner all other fuel combustion equipment does not exceed two thousandths percent (0.002%) by weight, when combusting recycled fuel oil, by providing a vendor analysis of fuel delivered accompanied by a vendor certification.
- (c) In order to comply with Conditions D.1.5(d) and D.1.5(e), the Permittee shall demonstrate that the chlorine content of the fuel used for the dryer/mixer burner all other fuel combustion equipment does not exceed six hundredths percent (0.06%) by weight, when combusting recycled fuel oil, by providing a vendor analysis of fuel delivered accompanied by a vendor certification.

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

D.1.14 Visible Emissions Notations

- (a) Visible emission notations of the conveyors, screens, material transfer points, and dryer/mixer stack (SV-1) exhaust 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.1.15 Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) The Permittee shall record the pressure drop across the Venturi scrubber used in conjunction with the dryer/mixer at least once per day when the dryer/mixer is in operation. When for any one reading, the pressure drop across the Venturi scrubber is outside the normal range of 10.0 and 20.0 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.

- (b) The instruments used for determining the pressure and temperature 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.1.16 Malfunction Detection

In the event that a scrubber malfunction has been observed:

Failed units and the associated processes shall 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).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.17 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.5 and D.1.6, the Permittee shall maintain records in accordance with (1) through (7) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel usage, sulfur content, heat content and equivalent sulfur dioxide emission rates for each fuel used at the source per month;
- (3) Actual recycled fuel oil usage, ash content, lead content, chlorine content, and equivalent hydrogen chloride (HCl) emission rate per month;
- (4) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:

- (5) Fuel supplier certifications;
- (6) The name of the fuel supplier; and
- (7) A statement from the fuel supplier that certifies the sulfur content of the distillate (No. 2) and recycled fuel oils and the ash content, lead content, and chlorine content of recycled fuel oil.

The Permittee shall maintain records of all recording/monitoring data and support information in accordance with Section C - General Record Keeping Requirements, of this permit. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Conditions D.1.5(g) and D.1.11 when combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner and all other combustion equipment, the Permittee shall maintain records of actual fuel usage and equivalent sulfur dioxide emission rate for each fuel used at the source per month.

- (c) To document compliance with Condition D.1.14, the Permittee shall maintain daily records of the visible emission notations from each of the conveyors, screens, material transfer points, and dryer/mixer stack (SV-1) exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the plant did not operate that day).
- (d) To document compliance with Condition D.1.15, the Permittee shall maintain the following:
 - (1) Daily records of the pressure drop across the Venturi scrubber controlling the dryer/mixer. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g., the dryer/mixer did not operate that day).
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.18 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.5(d), D.1.5(e), and D.1.11 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

(d) Paved roads and parking lots with public access. [326 IAC 6-5]

(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.2.1 PM and PM10 Emissions [326 IAC 2-8-4] [326 IAC 6-5]

Pursuant to 326 IAC 2-8 and 326 IAC 6-5, the Permittee shall control PM and PM10 emissions from paved and unpaved roads according to the fugitive dust plan submitted on May 24, 2002, which is included as Attachment A, as indicated in Section C - Fugitive Particulate Matter Emission Limitations of this permit.

SECTION E.1 FACILITY OPERATION CONDITIONS

Emissions Unit Description: Hot-Mix Asphalt Plant

- (a) One (1) aggregate dryer/mixer, identified as the MIXER, constructed in 2002, with a maximum throughput capacity of one hundred ten (110) tons per hour, having a burner with a maximum heat input capacity of forty and one tenth (40.1) million British thermal units per hour (MMBtu/hr), using No. 2 distillate fuel oil as its primary fuel, and recycled fuel oil and natural gas as backup fuels, equipped with a Venturi scrubber for particulate control, and exhausting through stack SV-1.
- (b) Material Handling and conveying operations, constructed in 2002, uncontrolled and exhausting to the atmosphere, and consisting of the following:
 - (1) One (1) drag conveyor, with a maximum capacity of one hundred fifty (150) tons per hour.
 - (2) Three (3) cold feed bins, with a maximum capacity of twenty (20) tons, each, for a total aggregate holding capacity of sixty (60) tons; and
 - (3) One (1) silo, with a maximum capacity of one hundred (100) tons.

Under 40 CFR 60.90, Subpart I - New Source Performance Standards for Hot Mix Asphalt Facilities, this is considered an affected hot-mix asphalt facility.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

E.1.1 NSPS Subpart I Requirements - Standards of Performance for Hot Mix Asphalt Facilities [40 CFR Part 60, Subpart I] [326 IAC 12-1]

Pursuant to CFR Part 60, Subpart I, the affected facility to which the provisions of this subpart apply is each hot mix asphalt facility, as defined in § 60.91(a), that commences construction or modification after June 11, 1973. 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.

The hot mix asphalt facility is subject to the following portions of 40 CFR 60, Subpart I (included as Attachment B of this permit):

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

Nonapplicable portions of the NSPS will not be included in the permit.

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

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

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

Source Name: R-Mix, LLC
Source Address: 2583 South State Road #1, Cambridge City, Indiana 47327
Mailing Address: 2583 South State Road #1, Cambridge City, IN 47327
FESOP Permit No.: F177-26904-05220

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 AND ENFORCEMENT 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: R-Mix, LLC
Source Address: 2583 South State Road #1, Cambridge City, Indiana 47327
Mailing Address: 2583 South State Road #1, Cambridge City, IN 47327
FESOP Permit No.: F177-26904-05220

This form consists of 2 pages

Page 1 of 2

<input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none">• 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

FESOP Quarterly Report Single Fuel Usage

Source Name: R-Mix, LLC
 Source Address: 2583 South State Road #1, Cambridge City, Indiana 47327
 Mailing Address: 2583 South State Road #1, Cambridge City, IN 47327
 FESOP Permit No.: F177-26904-05220
 Facilities: Dryer/mixer burner and all other combustion equipment
 Parameter: Fuel Usage
 Limit: In order to limit the source-wide total potential to emit SO₂ to less than one hundred (100) tons per twelve (12) consecutive month period, each, HCl to less than ten (10) tons per twelve (12) consecutive month period, and any combination of HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period, the usage of fuel combusted in the dryer/mixer burner and all other combustion equipment shall be limited as follows:

Fuel Type (units)	Fuel Usage Limit (per 12 consecutive month period)
Natural Gas (million cubic feet)	355
No. 2 Fuel Oil ≤ 0.5 wt% sulfur (gallons)	2,537,271
Recycled Fuel Oil ≤ 1.0 wt% sulfur (gallons)	2,335,

QUARTER: _____ YEAR: _____

The following fuel was the only fuel combusted over the previous twelve (12) month period: _____
 (combustion of more than one fuel requires the use of the "Multiple Fuel Quarterly Report" form)

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 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
Multiple Fuel Usage**

Page 1 of 2

Source Name: R-Mix, LLC
Source Address: 2583 South State Road #1, Cambridge City, Indiana 47327
Mailing Address: 2583 South State Road #1, Cambridge City, IN 47327
FESOP Permit No.: F177-26904-05220
Facilities: Dryer/mixer burner and all other combustion equipment
Parameters: Sulfur Dioxide (SO₂) Emissions
Limit: Sulfur dioxide (SO₂) emissions shall be less than one hundred (100) tons per twelve (12) consecutive month period based on the following equation:

$$S = \frac{G(E_G) + O(E_O) + R(E_R)}{2,000 \text{ lbs/ton}}$$

where:

S = tons of sulfur dioxide emissions for 12-month consecutive period

G = million cubic feet of natural gas used in last 12 months

O = gallons of No. 2 fuel oil used in last 12 months with less than or equal to 0.5% sulfur content

R = gallons of recycled fuel oil used in last 12 months with less than or equal to 0.5% sulfur content

Emission Factors for Sulfur dioxide

E_G = 0.6 pounds/million cubic feet of natural gas

E_O = 71.0 pounds/1000 gallons of No. 2 fuel oil

E_R = 73.5 pounds/1000 gallons of recycled fuel oil

Multiple Fuel Quarterly Report

QUARTER: _____ YEAR: _____

Month	Fuel Types (units)	Column 1	Column 2	Column 1 + Column 2	Equation Results
		Usage This Month	Usage Previous 11 Months	Usage 12 Month Total	Sulfur Dioxide Emissions (tons per 12 months)
Month 1	Natural Gas (million cubic feet)				
	No. 2 Fuel Oil ≤ 0.5 wt% sulfur (gallons)				
	Recycled Fuel Oil ≤ 0.5 wt% sulfur (gallons)				
Month 2	Natural Gas (million cubic feet)				
	No. 2 Fuel Oil ≤ 0.5 wt% sulfur (gallons)				
	Recycled Fuel Oil ≤ 0.5 wt% sulfur (gallons)				
Month 3	Natural Gas (million cubic feet)				
	No. 2 Fuel Oil ≤ 0.5 wt% sulfur (gallons)				
	Recycled Fuel Oil ≤ 0.5 wt% sulfur (gallons)				

- No deviation occurred in this reporting period. Submitted by: _____ Date: _____
- Deviation/s occurred in this reporting period. Title / Position: _____ Phone: _____
- Deviation has been reported on: _____ Signature: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: R-Mix, LLC
Source Address: 2583 South State Road #1, Cambridge City, Indiana 47327
Mailing Address: 2583 South State Road #1, Cambridge City, IN 47327
FESOP Permit No.: F177-26904-05220

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 ΔNo 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.

ATTACHMENT A

FUGITIVE DUST CONTROL PLAN FOR THE HOT-MIX ASPHALT PLANT

Submitted May 24, 2002

Revised March 05, 2009

- (a) Source Name & Address:
R-Mix, LLC
2583 South State Road #1,
Cambridge City, IN 47327

- (b) Processes, operations and areas that have a potential to emit fugitive dust:
 - (1) paved roadways
 - (2) unpaved parking lots and yards
 - (3) conveying/handling of raw materials

- (c) Description of the measures to be implemented to control fugitive particulate matter emissions:
 - (1) Truck cargoes will be covered during transit to reduce fugitive dust emissions from paved roadways. If fugitive dust emissions from any paved roadways are observed, R-Mix, LLC will use wet suppression or other methods to control these emissions.
 - (2) Fugitive particulate matter emissions from unpaved parking lots and yards shall be controlled by applying water when necessary.
 - (3) Fugitive particulate matter emissions from storage piles and the conveying/handling of raw materials shall be controlled by applying water when necessary.

ATTACHMENT B

40 CFR 60, SUBPART I — STANDARDS OF PERFORMANCE FOR HOT MIX ASPHALT FACILITIES

§ 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 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 (four hundredths (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.

[54 FR 6667, Feb. 14, 1989]

Reference

The US EPA Electronic Code of Federal Regulations - 40 CFR 60, Subpart I: Standards of Performance for Hot Mix Asphalt Facilities web address:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=875648a88dd2168ac2096fe26e3e4c98&rgn=div6&view=text&node=40:6.0.1.1.1.20&idno=40>

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document (ATSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name: R-Mix, LLC
Source Location: 2583 South State Road #1, Cambridge City, IN 47327
County: Wayne
SIC Code: 2951
Permit Renewal No.: F 177-26904-05220
Permit Reviewer: Hannah L. Desrosiers

On March 27, 2009, the Office of Air Quality (OAQ) had a notice published in The Palladium Item, Richmond, Indiana, stating that R-Mix, LLC had applied for a for a renewal of their FESOP issued on July 06, 2004. The notice also stated that the OAQ proposed to issue a FESOP renewal for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

On April 13, 2009, Mr. Dana Armstrong, Director of Industrial Compliance Services for DECA Environmental & Associates, consultant to R-Mix, LLC, submitted comments to IDEM, OAQ on the draft Federally Enforceable State Operating Permit (FESOP) Renewal.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will contain the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**. Unaffected permit conditions have been re-numbered where applicable, and the Table of Contents updated.

Comment 1:

Conditions D.1.17(a) and D.1.18, pages 28 and 29 of 42, of the draft permit require that R-Mix maintain records and report quarterly on amount of asphalt processed through the dryer/mixer. According to the calculations, TSD Appendix A, pages 1 and 12 of 15, R-Mix's emissions and limitations are based on their maximum [unlimited] annual asphalt production rate. Since R-Mix does not technically have an annual production limitation, R-Mix would prefer to have pound per hour limitations for stack testing purposes and to remove the record keeping and reporting requirements for the asphalt production, from the permit.

Response to Comment 1:

IDEM agrees with the requested change, since R-Mix does not need to limit their annual asphalt production rate, only their use of waste oil and pounds of pollutant per ton of asphalt produced, in order to maintain their FESOP status. Consequently, a pound per hour emission limitation can be substituted for the pound per ton limitation, and the associated recordkeeping and reporting requirements removed from the permit. R-Mix will still be required to operate the control device at all times and maintain it according to their preventative maintenance plan. Additionally, the permit requires R-Mix to monitor the control device and keep records of the monitoring activities. Therefore, the permit has been revised as follows:

...

D.1.1 PSD Limits [326 IAC 2-2]

- (a) Pursuant to ~~326 IAC 2-8-4~~, the amount of asphalt processed shall not exceed 963,600 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) PM emissions from the dryer/mixer shall not exceed **forty-nine and fifty hundredths (49.50)** ~~four hundred fifty thousandths (0.450)~~ pounds of PM per hour ~~ten of asphalt processed~~.

...

D.1.3 FESOP Limits [326 IAC 2-8-4] [326 IAC 2-2]

- (a) Pursuant to ~~326 IAC 2-8-4~~, the amount of asphalt processed shall not exceed 963,600 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) PM10 emissions from the dryer/mixer shall not exceed **twenty and sixty-eight hundredths (20.68)** ~~one hundred eighty eight thousandths (0.188)~~ pounds of PM10 per hour ~~ten of asphalt produced~~.
- (c) PM2.5 emissions from the dryer/mixer shall not exceed **twenty and sixty-eight hundredths (20.68)** ~~one hundred eighty eight thousandths (0.188)~~ pounds of PM2.5 per hour ~~ten of asphalt produced~~.
- (d) NOx emissions from the dryer/mixer shall not exceed **six and five hundredths (6.05)** ~~fifty-five thousandths (0.055)~~ pounds of NOx per hour ~~ten of asphalt produced~~.
- (e) VOC emissions from the dryer/mixer shall not exceed **three and fifty-two hundredths (3.52)** ~~thirty-two thousandths (0.032)~~ pounds of PM2.5 per hour ~~ten of asphalt produced~~.
- (f) CO emissions from the dryer/mixer shall not exceed **fourteen and thirty hundredths (14.30)** ~~one hundred thirty thousandths (0.130)~~ pounds of PM2.5 per hour ~~ten of asphalt produced~~.

...

D.1.17 Record Keeping Requirements

- (a) ~~To document compliance with Conditions D.1.1, D.1.2, and D.1.3, the Permittee shall keep records of the amount of asphalt processed through the dryer/mixer. Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.~~

...

D.1.18 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions ~~D.1.1(a), D.1.1(b), D.1.2(b), D.1.2(e), D.1.3, D.1.4(d), D.1.4(e), and D.1.4f~~ shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

...

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Additional Changes

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

The following typographical errors have been corrected as indicated:

D.1.3 FESOP Limits [326 IAC 2-8-4] [326 IAC 2-2]

...

- (e) VOC emissions from the dryer/mixer shall not exceed three and fifty-two hundredths (3.52) pounds of **VOC** ~~PM_{2.5}~~ per hour.
- (f) CO emissions from the dryer/mixer shall not exceed fourteen and thirty hundredths (14.30) pounds of CO ~~PM_{2.5}~~ per hour.

...

D.1.11 Multiple Fuel Usage Limitation

- (a) In order to comply with Condition D.1.54(g) when combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner and all other combustion equipment, the Permittee shall limit fuel usage in the dryer/mixer burner and all other combustion equipment according to the following formulas:

...

D.1.12 Sulfur Dioxide (SO₂) Emissions and Sulfur Content

Compliance with the sulfur dioxide emissions and sulfur content limitations in Conditions D.1.54(a), D.1.54(g), and D.1.65(a) shall be determined utilizing one of the following options.

...

D.1.13 Ash Content, Lead Content, Chlorine Content, and Hydrogen Chloride (HCl) Emissions

- (a) In order to comply with Conditions D.1.54(b), the Permittee shall demonstrate that the ash content of the fuel used for the dryer/mixer burner all other fuel combustion equipment does not exceed one and fifty hundredths percent (1.50%) by weight, when combusting recycled fuel oil, by providing a vendor analysis of fuel delivered accompanied by a vendor certification.
- (b) In order to comply with Conditions D.1.4(c), the Permittee shall demonstrate that the lead content of the fuel used for the dryer/mixer burner all other fuel combustion equipment does not exceed two thousandths percent (0.002%) by weight, when combusting recycled fuel oil, by providing a vendor analysis of fuel delivered accompanied by a vendor certification.
- (c) In order to comply with Conditions D.1.54(d) and D.1.54(e), the Permittee shall demonstrate that the chlorine content of the fuel used for the dryer/mixer burner all other fuel combustion equipment does not exceed six hundredths percent (0.06%) by weight, when combusting recycled fuel oil, by providing a vendor analysis of fuel delivered accompanied by a vendor certification.

...

D.1.17 Record Keeping Requirements

...

- (~~a~~**b**) To document compliance with Conditions D.1.54 and D.1.56, the Permittee shall maintain records in accordance with (1) through (7) below.

...

- (~~b~~**e**) To document compliance with Conditions D.1.54(g) and D.1.114~~0~~ when combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner and all other combustion equipment, the Permittee shall maintain records of actual fuel usage and equivalent sulfur dioxide emission rate for each fuel used at the source per month.

(cd) To document compliance with Condition D.1.1413, the Permittee shall maintain daily records of the visible emission notations from each of the conveyors, screens, material transfer points, and dryer/mixer stack (SV-1) exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the plant did not operate that day).

(de) To document compliance with Condition D.1.1544, the Permittee shall maintain the following:
...

D.1.18 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.54(d), D.1.54(e), and D.1.1140 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
...

IDEM Contact

- (a) Questions regarding this proposed permit renewal can be directed to Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5374 or toll free at 1-800-451-6027 extension 4-5374.
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

ATSD Addendum A: Emissions Calculations
Limited Emission Summary

Company Name: R-Mix, LLC
 Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
 FESOP Renewal No: 177-26904-05220
 Reviewer: Hannah L. Desrosiers
 Date Submitted: August 22, 2008

Asphalt Plant Limitations

Annual Asphalt Production Limitation =	963,600	ton/yr								
Natural Gas Limitation =	355	MMCF/yr								
No. 2 Fuel Oil Limitation =	2,537,271	gal/yr, and	0.50	% sulfur						
Used/Waste Oil Limitation =	2,335,175	gal/yr, and	0.50	% sulfur	1.50	% ash	0.060	% chlorine,	0.002	% lead
PM Dryer/Mixer Limitation =	0.450	lb/ton of asphlt production	=	49.50	lbs/hr ^a					
PM10 Dryer/Mixer Limitation =	0.188	lb/ton of asphlt production	=	20.68	lbs/hr ^a					
PM2.5 Dryer/Mixer Limitation =	0.188	lb/ton of asphlt production	=	20.68	lbs/hr ^a					
CO Dryer/Mixer Limitation =	0.130	lb/ton of asphlt production	=	14.30	lbs/hr ^a					
NOx Dryer/Mixer Limitation =	0.055	lb/ton of asphlt production	=	6.05	lbs/hr ^a					
VOC Dryer/Mixer Limitation =	0.032	lb/ton of asphlt production	=	3.52	lbs/hr ^a					

Limited/Controlled Emissions

Process Description	Limited/Controlled Potential Emissions (tons/year)								
	Criteria Pollutants						Hazardous Air Pollutants		
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst Case HAP
Ducted Emissions									
Fuel Combustion (worst case)	112.43	90.67	90.33	90.18	43.13	2.14	29.84	5.80	4.62 (hydrogen chloride)
Dryer/Mixer	216.81	90.58	92.99	27.94	26.50	15.42	62.63	5.14	1.49 (formaldehyde)
Worst Case Emissions	216.81	90.67	92.99	90.18	43.13	15.42	62.63	5.80	4.62 (hydrogen chloride)
Fugitive Emissions									
Asphalt Load-Out, Silo Filling, On-Site Yard	0.37	0.37	0.37	0	0	3.72	0.68	0.06	0.02 (formaldehyde)
Hot Oil Heating System	0	0	0	0	0	5.1E-05	0.02	5.1E-05	5.1E-05 (formaldehyde)
Material Storage Piles	0.11	0.04	0.04	0	0	0	0	0	0
Material Processing and Handling	3.11	1.47	0.22	0	0	0	0	0	0
Material Crushing, Screening, and Conveying	15.29	5.58	5.58	0	0	0	0	0	0
Paved Roads (worst case)	7.53	1.47	0.22	0	0	0	0	0	0
Volatile Organic Liquid Storage Vessels*	0	0	0	0	0	negl.	0	negl.	negl.
Total Fugitive Emissions	26.41	8.93	6.43	0	0	3.72	0.69	0.06	0.02 (formaldehyde)
Totals Limited/Controlled Emissions	243.22	99.60	99.41	90.18	43.13	19.14	63.33	5.86	4.62 (hydrogen chloride)

negl = negligible

* Fugitive emissions from each of the volatile organic liquid storage tanks were calculated using the EPA Tanks 4.0.9d program and were determined to be negligible.

^a Pounds per hour Emission Limitation = Annual Asphalt Production Limitation (tons/yr) * Dryer/Mixer Limitation (lb/ton) * 1yr/8760hrs

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:	R-Mix, LLC
Source Location:	2583 South State Road #1, Cambridge City, IN 47327
County:	Wayne
SIC Code:	2951
Permit Renewal No.:	F 177-26904-05220
Permit Reviewer:	Hannah L. Desrosiers

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from R-Mix, LLC relating to the operation of a stationary drum hot-mix asphalt manufacturing plant.

History

On August 22, 2008, R-Mix, LLC submitted an application to the OAQ requesting to renew its operating permit. R-Mix has confirmed that they do not use slag in their aggregate mix. In July 2008, the one (1) existing nine thousand (9,000) gallon liquid asphalt cement (AC) tank was converted for use as a fuel storage tank, and correspondingly, the one (1) existing fifteen thousand (15,000) gallon fuel storage tank was converted for use as a liquid AC tank. Additionally, one (1) new fifteen thousand (15,000) gal AC tank was installed. In June 2008, one (1) 15,000 gallon recycled fuel oil storage tank was installed and approval was gained for the addition of recycled fuel oil to the permit. R-Mix, LLC was issued a FESOP on July 6, 2004.

Permitted Emission Units and Pollution Control Equipment

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

- (a) One (1) aggregate dryer/mixer, identified as the MIXER, constructed in 2002, with a maximum throughput capacity of 110 tons per hour, having a burner with a maximum heat input capacity of forty and one tenth (40.1) million British thermal units per hour (MMBtu/hr), using No. 2 distillate fuel oil as its primary fuel, and recycled fuel oil and natural gas as backup fuels, equipped with a Venturi scrubber for particulate control, and exhausting through stack SV-1.
- (b) Material Handling and conveying operations, constructed in 2002, uncontrolled and exhausting to the atmosphere, and consisting of the following:
 - (1) One (1) drag conveyor, with a maximum capacity of one hundred fifty (150) tons per hour.
 - (2) Three (3) cold feed bins, with a maximum capacity of twenty (20) tons, each, for a total aggregate holding capacity of sixty (60) tons; and
 - (3) One (1) silo, with a maximum capacity of one hundred (100) tons.

Under 40 CFR 60.90, Subpart I - New Source Performance Standards for Hot Mix Asphalt Facilities, this is considered an affected hot-mix asphalt facility.

Insignificant Activities

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21).

- (a) One (1) liquid asphalt cement hot oil heating system, consisting of the following:
 - (1) One (1) natural gas-fired hot oil heater, identified as HEATER, constructed in 2002, with a maximum heat input capacity of forty-five hundredths (0.45) MMBtu/hr, uncontrolled and exhausting to the atmosphere;
 - (2) One (1) liquid asphalt storage tank, identified as TANK AC1, approved for construction in 2008, with a maximum storage capacity of 15, 000 gallons; and
 - (3) One (1) liquid asphalt storage tank, identified as TANK AC2, approved for construction in 2009, with a maximum storage capacity of 15, 000 gallons;
- (b) One (1) recycled fuel oil storage tank, identified as Tank RF, constructed in 2003, with a maximum capacity of 9,000 gallons;
- (c) One (1) No. 2 fuel oil storage tank, identified as TANK FO, constructed in 2003, with a maximum capacity of 15,000 gallons; and
- (d) Paved roads and parking lots with public access. [326 IAC 6-4]

Existing Approvals

Since the issuance of the FESOP No. 177-18049-05220 on July 6, 2004, the source has constructed or has been operating under the following approval as well:

- (a) FESOP Significant Permit Revision No. 177-26290-05220, issued on June 18, 2008.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Wayne County. The following attainment status designations are applicable to Wayne County:

continued on next page.....

Pollutant	Designation
SO2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM10	Unclassifiable effective November 15, 1990.
NO2	Cannot be classified or better than national standards.
Pb	Not designated.
> ¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. > Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Ozone Standards

- (1) 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.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Wayne County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5

Wayne County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules was July 15th, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.

(c) Other Criteria Pollutants

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

Fugitive Emissions

This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. However, this existing source was already subject to an applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Unrestricted Potential Emissions

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	tons/year
PM	13,517.52
PM10 ⁽¹⁾	3,140.76
PM2.5	3,138.15
SO ₂	93.35
NO _x	43.13
VOC	19.14
CO	63.33
Total HAPs ⁽²⁾	6.30
Maximum (Worst Case) HAP	5.02 (hydrogen chloride)

**Appendix A of this TSD reflects the unrestricted, uncontrolled, potential emissions of the source.*

- (1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.
 - (2) HAPs include benzene, ethylbenzene, formaldehyde, hexane, hydrogen chloride, methyl chloroform, naphthalene, toluene, xylene, and arsenic, cadmium, chromium, lead, manganese, mercury, and nickel compounds.
- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10, and SO2 is equal to or greater than one hundred (100) tons per year each, therefore, the source is subject to the provisions of 326 IAC 2-7. However, the source has agreed to continue to limit its PM10, and SO2 emissions to less than Title V levels, consequently the source will be issued a FESOP Renewal.
 - (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are still less than one hundred (100) tons per year.
 - (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is still less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is still less than twenty-five (25) tons per year.
 - (d) This type of operation is still not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. However, this existing source was already subject to an applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions are still counted toward the determination of PSD, and Part 70 Permit applicability.

Potential to Emit After Issuance

The source has opted to remain a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP Renewal and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Potential To Emit of the Entire Source After Issuance of FESOP Renewal (tons/year)									
Process/ Emission Unit	PM	PM10*	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Maximum (Worst Case) HAP
Ducted Emissions									
Fuel Combustion ⁽¹⁾ (max/worst case)	112.43	90.67	90.33	90.18	43.13	2.14	29.84	5.80	4.62 (hydrogen chloride)
Dryer/Mixer ⁽¹⁾ (Process)	216.81	90.58	90.58	27.94	26.50	15.42	62.63	5.14	1.49 (formaldehyde)
Maximum (Worst Case) Emissions	216.81	90.67	90.58	90.18	43.13	15.42	62.63	5.80	4.62 (hydrogen chloride)
Fugitive Emissions									
Asphalt Load-Out, Silo Filling, On-Site Yard ⁽¹⁾	0.37	0.37	0.37	0	0	3.72	0.68	0.06	0.02 (formaldehyde)
Hot Heating Oil System (process)	0	0	0	0	0	5.12E-05	0.02	5.12E-05	5.12E-05 (naphthalene)
Material Storage Piles	0.11	0.04	0.04	0	0	0	0	0	0
Material Processing and Handling ⁽¹⁾	3.11	1.47	0.22	0	0	0	0	0	0
Material Screening, and Conveying ⁽¹⁾	15.29	5.58	5.58	0	0	0	0	0	0
Paved Roads ⁽¹⁾ (maximum (worst case))	7.53	1.47	0.22	0	0	0	0	0	0
Volatile Organic Liquid Storage Vessels ⁽²⁾	0	0	0	0	0	negl	0	negl.	negl.
Total Fugitive Emissions	26.41	8.93	6.43	0	0	3.72	0.69	0.06	0.02 (formaldehyde)
Total Limited/ Controlled Emissions	243.22	99.60	97.01	90.18	43.13	19.14	63.33	5.86	4.62 (hydrogen chloride)
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	NA	NA
negl. = negligible									
* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.									
(1) PTE after production limitation.									
(2) Fugitive emissions from each of the volatile organic liquid storage tanks were calculated using the EPA Tanks 4.0.9d program and were determined to be negligible.									

(a) FESOP Status

This existing source is not a Title V major stationary source, because the potential emissions of criteria pollutants from the entire source will continue to be limited to less than the Title V major source threshold levels. Pursuant to this rule, the potential PM10 and PM2.5 emissions shall be limited to less than one hundred (100) tons per year. In addition, this existing source is not a

major source of HAPs, as defined in 40 CFR 63.41, because the potential HAPs emissions will continue to be limited to less than ten (10) tons per year for a single HAP and twenty-five (25) tons per year of total HAPs. Therefore, this source is still considered an area source under Section 112 of the Clean Air Act and is subject to the provisions of 326 IAC 2-8 (FESOP).

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the source shall comply with the following:

- (1) Pursuant to 326 IAC 2-8-4, the PM10 and PM2.5 emissions from the dryer/mixer burner, and all other emission units at this source, shall be limited as follows:
 - (A) The asphalt production rate shall continue to not exceed 963,600 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
 - (B) PM10 emissions from the dryer/mixer shall not exceed one hundred eighty-eight thousandths (0.188) pounds of PM10 per ton of asphalt produced. This is a change from the existing limit of one hundred ninety-five thousandths (0.195) pounds per ton of asphalt produced.
 - (C) PM2.5 emissions from the dryer/mixer shall not exceed one hundred eighty-eight thousandths (0.188) pounds of PM2.5 per ton of asphalt produced.
 - (D) NOx emissions from the dryer/mixer shall continue to not exceed fifty-five thousandths (0.055) pounds of NOx per ton of asphalt produced.
 - (E) VOC emissions from the dryer/mixer shall not exceed thirty-two thousandths (0.032) pounds of VOC per ton of asphalt produced. This is a change from the existing limit of thirty-seven thousandths (0.037) pounds per ton of asphalt produced.
 - (F) CO emissions from the dryer/mixer shall continue to not exceed one hundred thirty thousandths (0.130) pounds of CO per ton of asphalt produced.

Compliance with these limits, combined with the potential to emit PM10, PM2.5, NOx, VOC and CO from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5 to less than one hundred (100) tons per twelve (12) consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.

Note: The following terms and conditions from previous approvals have been revised in this FESOP Renewal:

- (i) A FESOP limit for PM2.5 has been added to the permit, because on May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, with an effective date for the rule of July 15th, 2008. While Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements, the May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.
- (ii) During this review, a calculation error was discovered in the emissions calculations. As a result, the FESOP limit for PM10 emissions from dryer/mixer listed in permit No. 177-26290-05220 has been revised from the existing one hundred ninety-five thousandths (0.195) lb/ton to one

hundred eighty-eight thousandths (0.188) lb/ton, in order to limit the PM10 emissions to less than the one hundred (100) ton per year FESOP threshold and making the requirements of 326 IAC 2-7 Title V (Part 70) not applicable;

- (iii) The VOC limit in FESOP 177-26290-05220 was based on an emission factor of thirty-seven thousandths (0.037) lbs/ton of asphalt produced. An updated emission factor for VOC emissions resulting from the drum hot-mix asphalt plant process was published in the AP-42 (Chapter 11.1, Table 11.1-8) in March 2004. The FESOP limit has been adjusted using the updated emission factor of thirty-two thousandths (0.032) lbs/ton of asphalt produced.

See Appendix A for the detailed calculations.

- (2) Pursuant to 326 IAC 2-8-4, the SO₂ and HAPs emissions from the dryer/mixer burner shall be limited as follows:
 - (A) The sulfur content of the No.2 and recycled fuel oils shall, each, continue to not exceed five tenths percent (0.5%) by weight;
 - (B) The ash content of the recycled fuel oil shall not exceed one and fifty hundredths percent (1.50%) by weight.
 - (C) The lead content of the recycled fuel oil shall not exceed two thousandths percent (0.002 %) by weight;
 - (D) The chlorine content of the recycled fuel oil shall continue to not exceed six hundredths percent (0.06 %) by weight;
 - (E) The HCl emissions from the dryer/mixer burner shall continue to not exceed four (4.0) pounds of HCl per one thousand (1000) gallons of recycled fuel oil burned, based on a chlorine content limit of six hundredths percent (0.06 %); and

Note: The following terms and conditions from previous approvals have been revised in this FESOP Renewal:

- (i) A new condition prohibiting the use of slag in the aggregate mix has been added to the permit in order to ensure compliance with the one hundred (100) ton per year FESOP threshold for SO₂, and making the requirements of 326 IAC 2-7 Title V (Part 70) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;
- (ii) The fuel usage limit for the recycled fuel oil (the limiting factor for PM, PM10, PM2.5 and SO₂) has been reduced from the existing limit of 2,625,937 gallons, or equivalent, per twelve (12) consecutive month period to 2,335,175 gallons per twelve (12) consecutive month period, in order to ensure compliance with the one hundred (100) ton per year FESOP threshold for each pollutant and making the requirements of 326 IAC 2-7 Title V (Part 70) not applicable;
- (α) A new ash content limit for recycled fuel oil (a limiting factor for PM, PM10, PM2.5) has been added to the permit to ensure compliance with the one hundred (100) ton per year FESOP threshold for each pollutant and making the requirements of 326 IAC 2-7 Title V (Part 70) not applicable;

- (β) A new lead content limit for recycled fuel oil (a limiting factor for HAPs) has been added to the permit to ensure compliance with the 10 ton per year single HAP and the 25 ton per year combined HAP, thresholds and making the requirements of 326 IAC 2-7 Title V (Part 70) not applicable;
- (iii) The fuel usage limit for natural gas has been increased from the existing limit of three hundred fifty-one (351) million cubic feet per twelve (12) consecutive month period to three hundred fifty-five (355) million cubic feet per twelve (12) consecutive month period, maximum possible usage when operating at maximum capacity, because while natural gas is the limiting factor for controlling Carbon Monoxide (CO) emissions, CO is not exceeded when operating at maximum capacity. This change increases the source's operational flexibility.
- (iii) The fuel usage limit for No. 2 fuel oil has been decreased from the existing limit of 2,718,400 gallons, or equivalent, per twelve (12) consecutive month period to 2,537,271 gallons, or equivalent, per twelve (12) consecutive month period, the maximum possible usage when operating at maximum capacity, because while No. 2 fuel oil is the limiting factor for controlling Nitrogen Oxides (NOx) emissions, NOx is not exceeded when operating at maximum capacity. This change does not affect the source's operational flexibility.

(F) Single Fuel Usage Limitations:

When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer burner and all other combustion equipment, the usage of fuel shall be limited as follows:

- (i) Natural gas usage shall not exceed three hundred fifty-five (355) million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month. This is a change from the existing limit of three hundred fifty-one (351) million cubic feet per twelve (12) consecutive month period;
- (ii) No. 2 fuel oil usage shall not exceed 2,537,271 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This is a change from the existing limit of 2,718,400 gallons, or equivalent, per twelve (12) consecutive month period;
- (iii) Recycled fuel oil usage shall not exceed 2,335,175 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This is a change from the existing limit of 2,625,937 gallons, or equivalent, per twelve (12) consecutive month period; and

(G) Multiple Fuel Usage Limitation:

When combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner and all other combustion equipment, the sum of the fuel usage shall be limited such that the SO₂ emissions are limited as follows:

- (i) Sulfur dioxide (SO₂) emissions calculation

$$S = \frac{G(E_G) + O(E_O) + R(E_R)}{2,000 \text{ lbs/ton}}$$

where:

S = tons of sulfur dioxide emissions for twelve (12)-month consecutive period

G = million cubic feet of natural gas used for last twelve (12) months

O = gallons of No. 2 fuel oil used in last twelve (12) months with less than or equal to five tenths percent (0.5%) sulfur content

R = gallons of recycled fuel oil used in the last twelve (12) months with less than or equal to five tenths percent (0.5%) sulfur content

Emission Factors for Sulfur dioxide

E_G = six tenths (0.6) lb/million cubic feet of natural gas

E_O = seventy-one (71.0) pounds/ one thousand (1000) gallons of No. 2 fuel oil

E_R = seventy-three and five tenths (73.5) pounds/ one thousand (1000) gallons of recycled fuel oil

Compliance with these limits, combined with the potential to emit SO₂ and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit SO₂ to less than one hundred (100) tons per twelve (12) consecutive month period, HCl to less than ten (10) tons per twelve (12) consecutive month period, and any combination of HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (PSD), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable.

(b) PSD Minor Source

This existing source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit PM is still limited to less than 250 tons per year and the potential to emit all other attainment regulated pollutants are less than 250 tons per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

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

- (1) The asphalt production rate shall continue to not exceed 963,600 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (2) The PM emissions from the dryer/mixer shall not exceed four hundred fifty thousandths (0.450) pounds of PM per ton of asphalt produced.

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

Note: The following terms and conditions from previous approvals have been revised in this FESOP Renewal:

- (A) PSD minor limits
A pound per ton limit for particulate matter (PM) has been added to the permit to make the ton per year PM limit more practicably enforceable, and limiting PM to less than 250 tons per year. This limit complements the State Rule 326 IAC 6.5 limit of 0.03 gr/dscft, and makes 326 IAC 2-2 PSD not applicable;

See Appendix A for detailed calculations.

Federal Rule Applicability

New Source Performance Standards (NSPS)

(a) 40 CFR 60, Subpart I - Standards for Hot Mix Asphalt Facilities

This stationary drum hot-mix asphalt plant, approved for construction in 2008, is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90, Subpart I) (326 IAC 12) because it meets the definition of a hot-mix asphalt facility pursuant to the rule and was constructed after June 11, 1973.

Therefore, pursuant to 40 CFR 60.92(a), particulate matter emissions from the dryer/mixer, and all other emission units, shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf), and visible emissions shall not exceed 20% opacity.

The source will comply with this rule by using a scrubber to limit particulate matter emissions from the dryer/mixer to less than 0.04 gr/dscf, and by applying the management techniques outlined in their Fugitive Dust Plan, revised March 05, 2009 and included as Attachment A to the permit.

The dryer/mixer 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.

Nonapplicable portions of the NSPS will not be included in the permit.

The provisions of 40 CFR 60 Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the dryer/mixer except when otherwise specified in 40 CFR 60 Subpart I.

(b) 40 CFR 60, Subpart UU - Standards for Asphalt Processing and Asphalt Roofing Manufacture

The stationary drum hot-mix asphalt plant is not an asphalt processing plant because it does not blow asphalt, or an asphalt roofing plant because it does not produce asphalt roofing products, and pursuant to §60.101(a) the stationary drum hot-mix asphalt plant is not a petroleum refinery because it is not engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of petroleum or through redistillation, cracking or reforming of unfinished petroleum derivatives. Therefore, the New Source Performance Standards for Asphalt Processing and Asphalt Roofing Manufacture, 40 CFR 60, Subpart UU (326 IAC 12), still do not apply to the stationary drum hot-mix asphalt plant and the requirements are not included in this renewal.

(c) 40 CFR 60, Subpart OOO - Standards for Nonmetallic Mineral Processing Plants

The source does not perform onsite crushing of Recycled Asphalt Pavement (RAP) and does not use RAP materials in their aggregate mix, therefore, the New Source Performance Standards for Nonmetallic Mineral Processing Plants, 40 CFR 60, Subpart OOO (326 IAC 12), still do not apply to this source, and the requirements are not included in the in this renewal.

(d) 40 CFR 60, Subpart UUU - Standards for Calciners and Dryers in Mineral Industries

The stationary drum hot-mix asphalt plant is not a mineral processing plant, meaning that it does not process or produce any of the following minerals, their concentrates or any mixture of which the majority (>50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite, therefore the New Source Performance Standard for Calciners and Dryers in Mineral Industries, 40 CFR 60, Subpart UUU (326 IAC 12), still do not apply to this source, and the requirements are not included in this renewal.

- (e) 40 CFR Part 60.110, Subpart Kb - Standards for Volatile Organic Liquid Storage Vessels
- (1) Although constructed after the rule applicability date of July 23, 1984, the one (1) 9,000 gallon (34.0 cubic meters) recycled fuel oil storage tank, identified as TANK RF, and the one (1) 15,000 gallon (56.8 cubic meters) No. 2 fuel oil storage tank, identified as TANK FO, are each not subject to the New Source Performance Standard for Volatile Organic Liquid Storage Vessels, (40 CFR 60, Subpart Kb)), as revised on October 15, 2003, because each tank has a capacity less than 75 cubic meters. Additionally, the 15,000 gallon No. 2 fuel oil storage tank is no longer subject to the recordkeeping requirements of 40 CFR 60.116b (a) and (b) through 326 IAC 12, due to recent revision to State Rule, 326 IAC 1-1-3 References to the Code of Federal Regulations. Therefore, 40 CFR 60, Subpart Kb (326 IAC 12), Standards for Volatile Organic Liquid Storage Vessels, still does not apply to these facilities, and none of the requirements are included in this renewal.
- (2) Although constructed after the rule applicability date of July 23, 1984, the two (2) new 15,000 gallon liquid asphalt storage tanks, identified as TANK AC1 & AC2, each has a capacity greater than 75 m³ (19,813 gallons) but less than 151 m³ (39,890 gallons) and the liquid stored in each tank has a maximum true vapor pressure of less than 15.0 kPa. Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels, 40 CFR Part 60, Subpart Kb (326 IAC 12), still do not apply to this source, and the requirements are not included in this renewal.
- (f) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this renewal.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (g) 40 CFR 63, Subpart LLLLL - NESHAPs for Asphalt Processing and Asphalt Roofing Manufacturing
The stationary drum hot-mix asphalt plant is not an asphalt processing plant or an asphalt roofing manufacturing facility because it does not engage in the preparation of asphalt flux or asphalt roofing materials. Additionally, it is not a major source of HAPs, and is not located at nor is it a part of a major source of HAP emissions. Therefore, the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Asphalt Processing and Asphalt Roofing Manufacturing, 40 CFR 63, Subpart LLLLL (326 IAC 20-71), still do not apply to this source, and the requirements are not included in the in this renewal.
- (h) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this renewal.

Compliance Assurance Monitoring (CAM)

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

State Rule Applicability - Entire Source

- (a) 326 IAC 1-6-3 (Preventive Maintenance Plan (PMP))
Any person responsible for operating any facility required to obtain a permit under the Federally Enforceable State Operating Permit Program, 326 IAC 2-8, shall prepare and maintain a preventive maintenance plan in accordance with 326 IAC 1-6-3(a), whenever a control device is required for compliance with any applicable emission limitations and/or air pollution control regulations. The dryer/mixer process, and combustion equipment, require the use of a control control device to limit the particulate emissions of PM, PM10 and PM2.5 to less that PSD and TV thresholds. Therefore a PMP is required for these units and their associated control devices.

- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
PSD applicability is discussed under the "PTE of the Entire Source after Issuance of the FESOP" section above.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The unlimited potential to emit of HAPs from the stationary drum hot-mix asphalt plant is less than ten (10) tons per year for any single HAP and/or less than twenty-five (25) tons per year of a combination of HAPs. Therefore, State Rule 326 IAC 2-4.1, Major Sources of Hazardous Air Pollutants (HAP), still does not apply to this source and the requirements are not included in this renewal.
- (d) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, pursuant to 326 IAC 2-6-1(b), the source is only subject to additional information requests as provided in 436 IAC 2-6-5.
- (e) 326 IAC 2-8-4 (FESOP)
FESOP applicability is discussed under the "PTE of the Entire Source after Issuance of the FESOP" section above.
- (f) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in the permit:
- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (g) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The requirements of 326 IAC 6-3 (Particulate Emissions Limitations for Manufacturing Operations) are not applicable to the dryer/mixer because more stringent PM limitations have been established by 326 IAC 6.5-1-2(a). Therefore, the requirements of State Rule 326 IAC 6-3-2, Particulate Emission Limitations for Manufacturing Processes, still do not apply to this source and are not included in this renewal.
- (h) 326 IAC 6-4 (Fugitive Dust Emissions)
This source consists of paved roads, stockpiles of aggregate, and materials handling operations which have the potential to generate fugitive dust that may escape beyond the property line or boundaries of the property. Hence, this source is subject to the provisions of 326 IAC 6-4. 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.
- (i) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This stationary hot-mix asphalt plant is subject to the requirements of 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), because it has a potential to emit more than 25 tons per year of fugitive particulate matter and was constructed after December 13, 1985. The control plan was submitted on May 24, 2002. A copy of the plan is included as Attachment A to the permit.

(j) 326 IAC 6.5 (Particulate Matter Emission Limitations Except Lake County)

This stationary hot-mix asphalt plant is located in Wayne County, has the potential to emit greater than one hundred (100) tons of particulate matter per year, and was constructed after June 11, 1973. Therefore, the source is subject to 326 IAC 6-1-2(a). Pursuant to 326 IAC 6.5-1-2(a), particulate matter (PM) emissions from the aggregate dryer/mixer shall not exceed three hundredths (0.03) grains per dry standard cubic foot (gr/dscf).

This limitation is more stringent than the applicable requirement of 0.04 grains per dry standard cubic foot established by 326 IAC 12 New Source Performance Standards (40 CFR 60, Subpart I Standards of Performance for Hot Mix Asphalt Facilities). Therefore, compliance with 326 IAC 6.5-1-2(a) will satisfy the grain loading limit of 0.04 gr/dscf specified in 326 IAC 12 and 40 CFR 60, Subpart I. This existing source will continue to comply with this rule by using a venturi scrubber to limit particulate matter emissions to less than 0.03 gr/dscf.

(k) 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)

The dryer/mixer burner is subject to 326 IAC 7-1.1 because it has potential SO₂ emissions of greater than 25 tons per year (limited potential emissions are 98.13 tons per year). Pursuant to this rule, sulfur dioxide emissions from the dryer/mixer burner shall be limited to five-tenths (0.5) pounds per million Btu for distillate oil combustion (including No. 2 fuel oil and recycled fuel oil). This equates to a maximum allowable sulfur content of approximately five tenths percent (0.5%) by weight for the distillate fuel oils.

The hot oil heater, identified as HEATER, is not subject to the requirements of 326 IAC 7-1.1 because it has potential SO₂ emissions of less than 25 tons per year. Therefore, the requirements of this rule are not included in the renewal for this facility.

(l) 326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

Pursuant to this rule, the source shall submit reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate (pounds SO₂ per MMBtu), to the OAQ upon request.

(m) 326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)

This existing stationary drum hot-mix asphalt plant, located in Wayne County, still has total, uncontrolled, potential VOC emissions of less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 General Reduction Requirements still do not apply to any of the emission units at this source, and are not included in this renewal.

See Appendix A for the detailed calculations.

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

(1) The existing one (1) 9,000 gallon (34.0 cubic meters), No. 2 fuel oil storage tank, identified as TANK FO, and the one (1) 15,000 gallon (56.8 cubic meters) AC oil storage tank, identified as TANK RF, each has a capacity less than (150,000) liters (39,000 gallons) and the liquid stored in each tank has a maximum true vapor pressure of less than 10.5 kPa. Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels, 40 CFR Part 60, Subpart Kb (326 IAC 12), still do not apply to these facilities, and the requirements are not included in this renewal.

(2) The two (2) new 15,000 gallon liquid asphalt storage tanks, identified as TANK AC1 & TANK AC2, each has a capacity less than (150,000) liters (39,000 gallons) and the liquid stored in each tank has a maximum true vapor pressure of less than 10.5 kPa. Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels, 40 CFR Part 60, Subpart Kb (326 IAC 12), do not apply to these facilities, and the requirements are not included in this renewal.

(o) 326 IAC 8-5-2 (Asphalt paving rules)
 This source does not have the capacity to produce, or apply, cutback or emulsified asphalt. Therefore, the requirements of 326 IAC 8-5-2 are not included in the renewal for this source.

(p) 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)
 This stationary source is located in Wayne County. The requirements of 326 IAC 8-9 apply only to vessels used to store a volatile organic liquid that are located in Clark, Floyd, Lake or Porter Counties. Therefore, the requirements of 326 IAC 8-9 do not apply to these storage tanks.

There are no other 326 IAC 8 Rules that are applicable to the stationary drum hot-mix asphalt plant.

- (q) 326 IAC 12-1 (New Source Performance Standards)
- (1) The hot mix asphalt plant is required to comply with the requirements of 40 CFR 60.90, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, as described in the "Federal Rule Applicability" section of this TSD.
 - (2) The one (1) 15,000 gallon No. 2 fuel oil storage tank, identified as TANK FO, is no longer subject to the recordkeeping requirements of 40 CFR 60.116b, as described in the "Federal Rule Applicability" section of this TSD.

Compliance Determination, Monitoring and Testing Requirements

(a) The dryer/mixer has applicable compliance determination conditions as specified below:

Emission Unit	Control Device	Frequency of Testing	Projected Future Testing Date*	Pollutant	Limit or Requirement
Aggregate dryer/mixer	Venturi Scrubber	Once every five (5) years	07/20/2009	PM	0.450 lb PM/ton of asphalt for PSD; and 0.03 gr/dscf for 326 IAC 6.5 and 40 CFR 60, Subpart I
Aggregate dryer/mixer	Venturi Scrubber	Once every five (5) years	180 days after publication of revised test method	PM10 PM2.5	0.188 lb PM10 /ton of asphalt; and 0.193 lb PM2.5/ton of asphalt

* The last stack test occurred on July 20, 2004. The source was in compliance at that time.

- (1) In order to comply with the PM, PM10, and PM2.5 limitations in the permit, the scrubber for the aggregate dryer/mixer, shall be in operation and control emissions from the dryer/mixer at all times when the dryer/mixer is in operation.
- (2) Asphalt production rate and fuel characteristics (i.e., ash content) will be used to verify compliance with the PM, PM10, and PM2.5 emission limitations.
- (3) Fuel characteristics (i.e., sulfur, chlorine, and lead content) and usage rate will be used to verify compliance with the SO2, and HAPs emission limitations.

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- (b) The drum mixer and aggregate dryer/burner, scrubber stack exhaust, and the conveying, screening, and material transfer points have applicable compliance monitoring conditions as specified below:

Emission Unit & Control Device	Parameter	Frequency	Range	Excursions and Exceedances
Scrubber for the dryer/mixer stack (SV-1)	Water Pressure Drop	Once per day	10.0 to 20.0 inches	Response Steps
	Visible Emissions	Once per day	< 20% for any (1) 6min avg period < 60% for more than 15 minutes	Response Steps
	Condition of scrubber	As needed	normal/abnormal	Response Steps
Conveyors, screens, material transfer points and dryer/mixer stack exhaust	Visible Emissions	Once per day	< 20% for any (1) 6min avg period < 60% for more than 15 minutes	Response Steps

These monitoring conditions are necessary because the scrubber used in conjunction with the aggregate dryer/mixer must operate properly to ensure continued compliance with 40 CFR 60, Subpart I, 326 IAC 2-8 (FESOP), and the limits that render 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70 Permit Program) not applicable.

Air Quality Impacts from Minor Sources

Pursuant to 326 IAC 2-1.1-5, IDEM, OAQ, has determined that a modeling analysis of the Unlimited Potential to Emit (PTE) criteria pollutants from this existing source is unnecessary to estimate whether the Limited PTE for all criteria pollutants will cause or contribute to a violation of any National Ambient Air Quality Standard (NAAQS), since they each do not exceed the PSD Significant Emission Rate thresholds, as demonstrated in Appendix B of the TSD.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this permit renewal was received on August 22, 2008.

The construction and operation of this source shall be subject to the conditions of the attached FESOP Renewal No. 177-26904-05220. The staff recommends to the Commissioner that this FESOP Renewal be approved.

IDEM Contact

Questions regarding this proposed permit can be directed to Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5374 or toll free at 1-800-451-6027 extension 4-5374.

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

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem/permits/guide/.

**Appendix A: Emissions Calculations
Emission Summary**

Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008

Asphalt Plant Maximum Capacity

Maximum Hourly Asphalt Production =	110	ton/hr								
Maximum Annual Asphalt Production =	963,600	ton/yr								
Maximum Fuel Input Rate =	40.6	MMBtu/hr	<i>Total input rate of all fuel combustion equipment combined (i.e., dryer burner, heaters, generators)</i>							
Equivalent Natural Gas Usage =	355	MMCF/yr								
Equivalent No. 2 Fuel Oil Usage =	2,537,271	gal/yr, and	0.50	% sulfur						
Equivalent Used/Waste Oil Usage =	2,537,271	gal/yr, and	0.50	% sulfur	1.50	% ash	0.060	% chlorine,	0.002	% lead

Unlimited/Uncontrolled Emissions

Process Description	Unlimited/Uncontrolled Potential to Emit (tons/year)									
	Criteria Pollutants							Hazardous Air Pollutants		
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst Case HAP	
Ducted Emissions										
Fuel Combustion (worst case)	122.13	98.40	98.06	93.35	43.13	2.25	29.84	6.24	5.02	(hydrogen chloride)
Dryer/Mixer	13,490.40	3,131.70	3,131.70	27.94	26.50	15.42	62.63	5.14	1.49	(formaldehyde)
Worst Case Emissions	13,490.40	3,131.70	3,131.70	93.35	43.13	15.42	62.63	6.24	5.02	(hydrogen chloride)
Fugitive Emissions										
Asphalt Load-Out, Silo Filling, On-Site Yard	0.37	0.37	0.37	0	0	3.72	0.68	0.06	0.02	(formaldehyde)
Hot Oil System	0	0	0	0	0	5.1E-05	0.02	5.1E-05	5.1E-05	(naphthalene)
Material Storage Piles	0.11	0.04	0.04	0	0	0	0	0	0	
Material Processing and Handling	3.11	1.47	0.22	0	0	0	0	0	0	
Material Crushing, Screening, and Conveying	15.29	5.58	5.58	0	0	0	0	0	0	
Paved Roads (worst case)	8.24	1.60	0.24	0	0	0	0	0	0	
Volatile Organic Liquid Storage Vessels *	0	0	0	0	0	negl.	0	negl.	negl.	
Total Fugitive Emissions	27.12	9.06	6.45	0	0	3.72	0.69	0.06	5.02	(xylenes)
Totals Unlimited/Uncontrolled PTE	13,517.52	3,140.76	3,138.15	93.35	43.13	19.14	63.33	6.30	5.02	(xylenes)

negl = negligible

* Fugitive emissions from each of the volatile organic liquid storage tanks were calculated using the EPA Tanks 4.0.9d program and were determined to be negligible.

**Appendix A: Emissions Calculations
Dryer/Mixer Fuel Combustion
Maximum Capacity < 100 MMBtu/hr**

Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008

The following calculations determine the Unlimited/Uncontrolled emissions created from the combustion of natural gas, fuel oil, propane, butane, or used/waste oil in the dryer/mixer and all other fuel combustion sources at the source.

Maximum Capacity

Maximum Annual Asphalt Production =	963,600	ton/yr
Maximum Fuel Input Rate =	40.1	MMBtu/hr
Equivalent Natural Gas Usage =	355	MMCF/yr
Equivalent No. 2 Fuel Oil Usage =	2,537,271	gal/yr, and
Equivalent Used/Waste Oil Usage =	2,537,271	gal/yr, and
		0.50 % sulfur
		0.50 % sulfur
		1.50 % ash
		0.060 % chlorine
		0.002 % lead

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units)			Unlimited/Uncontrolled Potential to Emit			
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Used/Waste Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	Used/Waste Oil (tons/yr)	Worse Case Fuel (tons/yr)
PM *	1.9	2.0	96.0	0.34	2.54	121.79	121.79
PM10 *	7.6	3.3	76.5	1.35	4.19	97.05	97.05
PM2.5*	5.7	3.3	76.5	1.01	4.19	97.05	97.05
SO2	0.6	71.0	73.5	0.11	90.07	93.24	93.24
NOx	100	20.0	19.0	17.76	25.37	24.10	25.37
VOC	5.5	0.20	1.0	0.98	0.25	1.27	1.27
CO	84	5.0	5.0	14.92	6.34	6.34	14.92
Hazardous Air Pollutant							
HCl			4.0			5.02	5.02
Antimony			negl			negl	0
Arsenic	2.0E-04	5.6E-04	1.1E-01	3.6E-05	7.10E-04	1.40E-01	1.4E-01
Beryllium	1.2E-05	4.2E-04	negl	2.1E-06	5.33E-04	negl	5.3E-04
Cadmium	1.1E-03	4.2E-04	9.3E-03	2.0E-04	5.33E-04	1.18E-02	1.2E-02
Chromium	1.4E-03	4.2E-04	2.0E-02	2.5E-04	5.33E-04	2.54E-02	2.5E-02
Cobalt	8.4E-05		2.1E-04	1.5E-05		2.66E-04	2.7E-04
Lead	5.0E-04	1.3E-03	0.11	8.9E-05	1.60E-03	1.4E-01	0.14
Manganese	3.8E-04	8.4E-04	6.8E-02	6.7E-05	1.07E-03	8.63E-02	0.09
Mercury	2.6E-04	4.2E-04		4.6E-05	5.33E-04		5.3E-04
Nickel	2.1E-03	4.2E-04	1.1E-02	3.7E-04	5.33E-04	1.40E-02	0.014
Selenium	2.4E-05	2.1E-03	negl	4.3E-06	2.66E-03	negl	2.7E-03
1,1,1-Trichloroethane							0
1,3-Butadiene							0
Acetaldehyde							0
Acrolein							0
Benzene	2.1E-03			3.7E-04			3.7E-04
Bis(2-ethylhexyl)phthalate			2.2E-03			2.79E-03	2.8E-03
Dichlorobenzene	1.2E-03		8.0E-07	2.1E-04		1.01E-06	2.1E-04
Ethylbenzene							0
Formaldehyde	7.5E-02	6.10E-02		1.3E-02	7.74E-02		0.077
Hexane	1.8E+00			0.32			0.320
Phenol			2.4E-03			3.04E-03	3.0E-03
Toluene	3.4E-03			6.0E-04			6.0E-04
Total PAH Haps	negl		3.9E-02	negl		4.96E-02	5.0E-02
Polycyclic Organic Matter		3.30E-03			4.19E-03		4.2E-03
Xylene							0
Total HAPs				0.34	0.09	5.50	5.90

Abbreviations

PM = Particulate Matter NOx = Nitrous Oxides HAP = Hazardous Air Pollutant
 PM10 = Particulate Matter (<10 um) VOC = Volatile Organic Compound HCl = Hydrogen Chloride
 SO2 = Sulfur Dioxide CO = Carbon Monoxide PAH = Polyaromatic Hydrocarbon

Methodology

Equivalent Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
 Equivalent Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.140 MMBtu]
 Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [ton/2000 lb]
 All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] * [Emission Factor (lb/kgal)] * [kgal/1000 gal] * [ton/2000]
 Sources of AP-42 Emission Factors for fuel combustion
 Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4
 No. 2, No.4, and No.6 Fuel Oil: AP-42 Chapter 1.3 (dated 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11
 Waste Oil: AP-42 Chapter 1.11 (dated 10/96), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5

Notes

* PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 emission factor is condensable PM2.5.
 Where PM2.5 emission factors are absent, it is assumed that PM2.5 emissions = PM10 emission:

**Appendix A: Emissions Calculations
Hot Oil Heating System Fuel Combustion
Maximum Capacity < 100 MMBtu/hr**

Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008

The following calculations determine the Unlimited/Uncontrolled emissions created from the combustion of natural gas, fuel oil, propane, butane, or used/waste oil in the dryer/mixer and all other fuel combustion sources at the source.

Maximum Capacity

Maximum Annual Asphalt Production =	963,600	ton/yr
Maximum Fuel Input Rate =	0.45	MMBtu/hr
Equivalent Natural Gas Usage =	355	MMCF/yr

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units)	Unlimited/Uncontrolled Potential to Emit (tons/yr)	
	Natural Gas (lb/MMCF)	Natural Gas (tons/yr)	Worse Case Fuel (tons/yr)
PM*	1.9	0.34	0.34
PM10*	7.6	1.35	1.35
PM2.5*	5.7	1.01	1.01
SO2	0.6	0.11	0.11
NOx	100	17.76	17.76
VOC	5.5	0.98	0.98
CO	84	14.92	14.92
Hazardous Air Pollutant			
HCl	0	0	0
Antimony	0	0	0
Arsenic	2.0E-04	3.6E-05	3.6E-05
Beryllium	1.2E-05	2.1E-06	2.1E-06
Cadmium	1.1E-03	2.0E-04	2.0E-04
Chromium	1.4E-03	2.5E-04	2.5E-04
Cobalt	8.4E-05	1.5E-05	1.5E-05
Lead	5.0E-04	8.9E-05	0
Manganese	3.8E-04	6.7E-05	0
Mercury	2.6E-04	4.6E-05	4.6E-05
Nickel	2.1E-03	3.7E-04	0
Selenium	2.4E-05	4.3E-06	4.3E-06
1,1,1-Trichloroethane	0	0	0
1,3-Butadiene	0	0	0
Acetaldehyde	0	0	0
Acrolein	0	0	0
Benzene	2.1E-03	3.7E-04	3.7E-04
Bis(2-ethylhexyl)phthalate	0	0	0
Dichlorobenzene	1.2E-03	2.1E-04	2.1E-04
Ethylbenzene	0	0	0
Formaldehyde	7.5E-02	1.3E-02	0.013
Hexane	1.8E+00	0.32	0.320
Phenol	0	0	0
Toluene	3.4E-03	6.0E-04	6.0E-04
Total PAH Haps	negl	negl	0
Polycyclic Organic Matter	0	0	0
Xylene	0	0	0
Total HAPs		0.34	0.34

Abbreviations

PM = Particulate Matter
 PM10 = Particulate Matter (<10 um)
 SO2 = Sulfur Dioxide
 NOx = Nitrous Oxides
 VOC = Volatile Organic Compounds
 CO = Carbon Monoxide
 HAP = Hazardous Air Pollutant
 HCl = Hydrogen Chloride
 PAH = Polyaromatic Hydrocarbon

Methodology

Equivalent Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
 Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [ton/2000 lbs]
 Source of AP-42 Emission Factors for fuel combustion:

Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4

Notes

* PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 emission factor is condensable PM2.5 only.

Appendix A: Emissions Calculations Dryer/Mixer Volatile Organic Compounds and Hazardous Air Pollutants

Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008

The following calculations determine the unlimited/uncontrolled emissions from the aggregate drying/mixing

Maximum Annual Asphalt Production = 963,600 ton/yr

Criteria Pollutant	Uncontrolled Emission Factors (lb/ton)			Unlimited/Uncontrolled Potential to Emit (tons/yr)			Worse Case PTE
	Drum-Mix Plant (dryer/mixer)			Drum-Mix Plant (dryer/mixer)			
	Natural Gas	No. 2 Fuel Oil	No. 6 Fuel Oil or Waste Oil	Natural Gas	No. 2 Fuel Oil	No. 6 Fuel Oil or Waste Oil	
PM	28	28	28	13,490.4	13,490.4	13,490.4	13,490.4
PM10 *	6.5	6.5	6.5	3,131.7	3,131.7	3,131.7	3,131.7
SO2	0.0034	0.011	0.058	1.6	5.3	27.9	27.9
NOx	0.026	0.055	0.055	12.5	26.5	26.5	26.5
VOC	0.032	0.032	0.032	15.4	15.4	15.4	15.4
CO	0.13	0.13	0.13	62.6	62.6	62.6	62.6
Hazardous Air Pollutant							
HCl			2.10E-04			1.01E-01	0.10
Antimony	1.80E-07	1.80E-07	1.80E-07	8.67E-05	8.67E-05	8.67E-05	8.67E-05
Arsenic	5.60E-07	5.60E-07	5.60E-07	2.70E-04	2.70E-04	2.70E-04	2.70E-04
Beryllium	negl	negl	negl	negl	negl	negl	0.00E+00
Cadmium	4.10E-07	4.10E-07	4.10E-07	1.98E-04	1.98E-04	1.98E-04	1.98E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	2.65E-03	2.65E-03	2.65E-03	2.65E-03
Cobalt	2.60E-08	2.60E-08	2.60E-08	1.25E-05	1.25E-05	1.25E-05	1.25E-05
Lead	6.20E-07	1.50E-05	1.50E-05	2.99E-04	7.23E-03	7.23E-03	7.23E-03
Manganese	7.70E-06	7.70E-06	7.70E-06	3.71E-03	3.71E-03	3.71E-03	3.71E-03
Mercury	2.40E-07	2.60E-06	2.60E-06	1.16E-04	1.25E-03	1.25E-03	1.25E-03
Nickel	6.30E-05	6.30E-05	6.30E-05	0.03	0.03	0.03	0.03
Selenium	3.50E-07	3.50E-07	3.50E-07	1.69E-04	1.69E-04	1.69E-04	1.69E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	0.02	0.02	0.02	0.02
Acetaldehyde			1.30E-03			0.63	0.63
Acrolein			2.60E-05			1.25E-02	1.25E-02
Benzene	3.90E-04	3.90E-04	3.90E-04	0.19	0.19	0.19	0.19
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.12	0.12	0.12	0.12
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	1.49	1.49	1.49	1.49
Hexane	9.20E-04	9.20E-04	9.20E-04	0.44	0.44	0.44	0.44
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.02	0.02	0.02	0.02
MEK			2.00E-05			0.01	0.01
Propionaldehyde			1.30E-04			0.06	0.06
Quinone			1.60E-04			0.08	0.08
Toluene	1.50E-04	2.90E-03	2.90E-03	0.07	1.40	1.40	1.40
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.09	0.42	0.42	0.42
Xylene	2.00E-04	2.00E-04	2.00E-04	0.10	0.10	0.10	0.10
Total HAPs						5.14	
Worst Single HAP						1.49	(formaldehyde)

Abbreviations

VOC - Volatile Organic Compounds
 HCl = Hydrogen Chloride
 SO2 = Sulfur Dioxide

HAP = Hazardous Air Pollutant
 PAH = Polyaromatic Hydrocarbon

Methodology

Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000) | Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-3, 11.1-7, 11.1-8, 11.1-10, and 11.1-12

Notes

* PM2.5 emission factors are absent, therefore, it is assumed that PM2.5 emissions = PM10 emissions

**Appendix A: Emissions Calculations
Load-Out, Silo Filling, and Yard Emissions**

Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008

The following calculations determine the Unlimited/uncontrolled fugitive emissions from hot asphalt mix load-out, silo filling, and on-site yard for a drum mix hot mix asphalt plant

Asphalt Temperature, T =	290	F
Asphalt Volatility Factor, V =	-0.5	
Maximum Annual Asphalt Production =	963,600	tons/yr

Pollutant	Emission Factor (lb/ton asphalt)			Unlimited/Uncontrolled Potential to Emit (tons/yr)			
	Load-Out	Silo Filling	On-Site Yard	Load-Out	Silo Filling	On-Site Yard	Total
Total PM	3.2E-04	4.4E-04	NA	0.16	0.21	NA	0.37
Organic PM	1.4E-04	1.1E-04	NA	0.07	0.051	NA	0.12
TOC	0.002	0.005	0.001	0.83	2.44	0.530	3.8
CO	0.001	0.000	3.5E-04	0.27	0.236	0.170	0.68

NA = Not Applicable (no AP-42 Emission Factor)

PM/HAPs	0.005	0.006	0	0.011
VOC/HAPs	0.012	0.031	0.008	0.051
non-VOC/HAPs	6.4E-05	6.6E-06	4.1E-05	1.1E-04
non-VOC/non-HAPs	0.06	0.03	0.04	0.13

Total VOCs	0.78	2.44	0.5	3.7
Total HAPs	0.02	0.04	0.008	0.06
Worst Single HAP				0.018
				(formaldehyde)

Abbreviations

TOC = Total Organic Compounds HAP = Hazardous Air Pollutant
 CO = Carbon Monoxide VOC = Volatile Organic Compound
 PM = Particulate Matter

Methodology

Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-14, 11.1-15, and 11.1-16

PM10 & PM2.5 emission factors are absent, therefore, it is assumed that PM10 & PM2.5 emissions = PM emissions

Plant Load-Out Emission Factor Equations (AP-42 Table 11.1-14):

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

Organic PM Ef = 0.00141(-V)e^{((0.0251)(T+460)-20.43)}

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

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

Silo Filling Emission Factor Equations (AP-42 Table 11.1-14):

PM/PM10 Ef = 0.000332 + 0.00105(-V)e^{((0.0251)(T+460)-20.43)}

Organic PM Ef = 0.00105(-V)e^{((0.0251)(T+460)-20.43)}

TOC Ef = 0.0504(-V)e^{((0.0251)(T+460)-20.43)}

CO Ef = 0.00488(-V)e^{((0.0251)(T+460)-20.43)}

On Site Yard CO emissions estimated by multiplying the TOC emissions by 0.32

**Appendix A: Emissions Calculations
Load-Out, Silo Filling, and Yard Emissions (continued)**

Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008

Organic Particulate-Based Compounds (Table 11.1-15)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Unlimited/Uncontrolled Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of Total Organic PM)	Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)	Load-out	Silo Filling	Onsite Yard	Total
PAH HAPs										
Acenaphthene	83-32-9	PM/HAP	POM	Organic PM	0.26%	0.47%	1.8E-04	2.4E-04	NA	4.2E-04
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	0.014%	1.9E-05	7.1E-06	NA	2.6E-05
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	0.13%	4.8E-05	6.6E-05	NA	1.1E-04
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	0.056%	1.3E-05	2.8E-05	NA	4.1E-05
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	0	5.2E-06	0	NA	5.2E-06
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	0	1.5E-06	0	NA	1.5E-06
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	0	1.3E-06	0	NA	1.3E-06
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	0	1.6E-06	0	NA	1.6E-06
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	0.0095%	5.3E-06	4.8E-06	NA	1.0E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	0.21%	7.0E-05	1.1E-04	NA	1.8E-04
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	0	2.5E-07	0	NA	2.5E-07
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	0.15%	3.4E-05	7.6E-05	NA	1.1E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.01%	5.3E-04	5.1E-04	NA	1.0E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	0	3.2E-07	0	NA	3.2E-07
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	5.27%	1.6E-03	2.7E-03	NA	0.004
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	1.82%	8.5E-04	9.2E-04	NA	1.8E-03
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	0.03%	1.5E-05	1.5E-05	NA	3.0E-05
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.80%	5.5E-04	9.1E-04	NA	1.5E-03
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	0.44%	1.0E-04	2.2E-04	NA	3.3E-04
Total PAH HAPs							0.004	0.006	NA	0.010
Other semi-volatile HAPs										
Phenol		PM/HAP	---	Organic PM	1.18%	0	8.1E-04	0	0	8.1E-04

Methodology

Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Speciation Profile (%)] * [Organic PM (tons/yr)]

Speciation Profiles from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-15 and 11.1-16

Abbreviations

NA = Not Applicable (no AP-42 Emission Factor)

PM = Particulate Matter

HAP = Hazardous Air Pollutant

POM = Polycyclic Organic Matter

**Appendix A: Emissions Calculations
Load-Out, Silo Filling, and Yard Emissions (continued)**

Organic Volatile-Based Compounds (Table 11.1-16)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Unlimited/Uncontrolled Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of TOC)	Silo Filling and Asphalt Storage Tank (% by weight of TOC)	Load-out	Silo Filling	Onsite Yard	Total
VOC		VOC	---	TOC	94%	100%	0.78	2.44	0.50	3.72
non-VOC/non-HAPS										
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	0.26%	5.4E-02	6.3E-03	3.4E-02	0.095
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	0.055%	3.8E-04	1.3E-03	2.4E-04	0.002
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.10%	5.9E-03	2.7E-02	3.8E-03	0.037
Total non-VOC/non-HAPS					7.30%	1.40%	0.061	0.034	0.039	0.13
Volatile organic HAPs										
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	0.032%	4.3E-04	7.8E-04	2.8E-04	1.5E-03
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	0.0049%	8.0E-05	1.2E-04	5.1E-05	2.5E-04
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	0.039%	4.1E-04	9.5E-04	2.6E-04	1.6E-03
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	0.016%	1.1E-04	3.9E-04	6.9E-05	5.7E-04
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	0.004%	1.7E-06	9.8E-05	1.1E-06	1.0E-04
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	0.023%	1.2E-04	5.6E-04	7.9E-05	7.7E-04
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	0	9.2E-04	0	5.8E-04	1.5E-03
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	0.038%	2.3E-03	9.3E-04	1.5E-03	0.005
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	0.69%	7.3E-04	1.7E-02	4.7E-04	0.018
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	0.10%	1.2E-03	2.4E-03	7.9E-04	0.004
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	0.00031%	1.5E-05	7.6E-06	9.5E-06	3.2E-05
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0.00027%	0	6.6E-06	0	6.6E-06
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	0.0054%	6.1E-05	1.3E-04	3.9E-05	2.3E-04
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	0	6.4E-05	0	4.1E-05	1.0E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	0.062%	1.7E-03	1.5E-03	1.1E-03	0.004
1,1,1-Trichloroethane	71-55-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichloroethene	79-01-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	VOC/HAP	---	TOC	0.0013%	0	1.1E-05	0	6.9E-06	1.8E-05
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	0.20%	3.4E-03	4.9E-03	2.2E-03	0.010
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	0.057%	6.7E-04	1.4E-03	4.2E-04	2.5E-03
Total volatile organic HAPs					1.50%	1.30%	0.012	0.032	0.008	0.052

Methodology

Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Speciation Profile (%)] * [TOC (tons/yr)]

Speciation Profiles from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-15 and 11.1-16

Abbreviations

TOC = Total Organic Compounds

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

MTBE = Methyl tert butyl ether

Appendix A: Emissions Calculations Hot Oil Heating System

Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008

The following calculations determine the unlimited/uncontrolled fugitive emissions from heating of the oil used in the hot oil heating system.

Maximum Fuel Input Rate To Hot Oil Heater = 0.45 MMBtu/hr
 Equivalent Natural Gas Usage = 3.9 MMCF/yr

Criteria Pollutant	Emission Factors	Unlimited/ Uncontrolled Potential to Emit (tons/yr)	Worse Case PTE
	Natural Gas (lb/ft3)	Natural Gas	
VOC	2.60E-08	5.12E-05	5.12E-05
CO	8.90E-06	0.018	0.018
Hazardous Air Pollutant			
Formaldehyde	2.60E-08	5.12E-05	5.12E-05
Acenaphthene	0	0	0
Acenaphthylene	0	0	0
Anthracene	0	0	0
Benzo(b)fluoranthene	0	0	0
Fluoranthene	0	0	0
Fluorene	0	0	0
Naphthalene	0	0	0
Phenanthrene	0	0	0
Pyrene	0	0	0

Total HAPs 5.12E-05
Worst Single HAP 5.12E-05 (Formaldehyde)

Methodology

Equivalent Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
 Equivalent No. 2 Fuel Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.140 MMBtu]
 Natural Gas: Potential to Emit (tons/yr) = (Natural Gas Usage (MMCF/yr))*(Emission Factor (lb/CF))*(1000000 CF/MMCF)*(ton/2000 lbs)
 No. 2 Fuel Oil: Potential to Emit (tons/yr) = (No. 2 Fuel Oil Usage (gals/yr))*(Emission Factor (lb/gal))*(ton/2000 lbs)
 1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu
 Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Table 11.1-13
 *Note: Emissions associated with fuel combustion in the hot oil heater are included in the fuel combustion calculations. Emissions (withdrawal and standing losses) associated with all volatile organic liquid (VOL) storage vessels are not included in the table above.

Abbreviations

CO = Carbon Monoxide VOC = Volatile Organic Compound

**Appendix A: Emissions Calculations
Material Storage Piles**

Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008

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

$$E_f = 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15)$$
 where E_f = emission factor (lb/acre/day)
 s = silt content (wt %)
 p = days of rain greater than or equal to 0.01 inches
 f = % of wind greater than or equal to 12 mph

Material	Silt Content (wt %)*	Emission Factor (lb/acre/day)	Maximum Anticipated Pile Size (acres)**	PTE of PM (tons/yr)	PTE of PM10 (tons/yr)
Limestone	1.6	1.85	0.13	0.042	0.015
Sand	2.6	3.01	0.13	0.069	0.024
Totals				0.11	0.04

Methodology

PM2.5 emission factors are absent, therefore, it is assumed that PM2.5 emissions = PM10 emissions
 PTE of PM (tons/yr) = (Emission Factor (lb/acre/day)) * (Maximum Pile Size (acres)) * (ton/2000 lbs) * (8760 hours/yr)
 PTE of PM10 (tons/yr) = (Potential PM Emissions (tons/yr)) * 35%
 *Silt content values obtained from AP-42 Table 13.2.4-1 (dated 11/06)
 **Maximum pile size (acres) anticipated for a source with an annual asphalt production of 963,600 tons/yr

Abbreviations

PM = Particulate Matter
 PM10 = Particulate Matter (<10 um)
 PTE = Potential to Emit

**Appendix A: Emissions Calculations
Material Processing and Handling
Fugitive Dust**

**Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008**

Batch or Continuous Drop Operations (AP-42 Section 13.2.4)

To estimate potential fugitive dust emissions from processing and handling of raw materials (batch or continuous drop operations), AP-42 emission factors for Aggregate Handling, Section 13.2.4 (fifth edition, 11/06) are utilized.

$$E_f = k \cdot (0.0032) \cdot [(U/5)^{1.3} / (M/2)^{1.4}]$$

where: E_f = Emission factor (lb/ton)

k (PM) =	0.74	= particle size multiplier (0.74 assumed for aerodynamic diameter <=100 um)
k (PM10) =	0.35	= particle size multiplier (0.35 assumed for aerodynamic diameter <=10 um)
k (PM2.5) =	0.053	= particle size multiplier (0.053 assumed for aerodynamic diameter <=2.5 um)
U =	10.2	= worst case annual mean wind speed (Source: NOAA, 2006*)
M =	4.0	= material % moisture content of aggregate (Source: AP-42 Section 11.1.1.1)
E_f (PM) =	2.27E-03	lb PM/ton of material handled
E_f (PM10) =	1.07E-03	lb PM10/ton of material handled
E_f (PM2.5) =	1.62E-04	lb PM2.5/ton of material handled

Maximum Annual Asphalt Production =	963,600	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	915,420	tons/yr

Type of Activity	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10 (tons/yr)	Unlimited/Uncontrolled PTE of PM2.5 (tons/yr)
Truck unloading of materials into storage piles	1.04	0.49	0.07
Front-end loader dumping of materials into feeder bins	1.04	0.49	0.07
Conveyor dropping material into dryer/mixer or batch tower	1.04	0.49	0.07
Total (tons/yr)	3.11	1.47	0.22

Methodology

Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]

Limited Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)

Raw materials may include limestone, sand, recycled asphalt pavement (RAP), gravel, slag, and other additives

*Worst case annual mean wind speed (South Bend, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006

Material Screening and Conveying (AP-42 Section 11.19.2)

To estimate potential fugitive dust emissions from raw material crushing, screening, and conveying, AP-42 emission factors for Crushed Stone Processing Operations, Section 11.19.2 (dated 8/04) are utilized.

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10 (tons/yr)
Crushing	0.0054	0.0024	2.47	1.10
Screening	0.025	0.0087	11.44	3.98
Conveying	0.003	0.0011	1.37	0.50
Limited Potential to Emit (tons/yr) =			15.29	5.58

**Appendix A: Emissions Calculations
Fugitive Dust Emissions - Paved Roads**

Company Name: R-Mix, LLC
 Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
 FESOP Renewal No: 177-26904-05220
 Reviewer: Hannah L. Desrosiers
 Date Submitted: August 22, 2008

Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (11/06).

Maximum Annual Asphalt Production =	963,600	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	915,420	tons/yr
Maximum Asphalt Cement/Binder Throughput =	48,180	tons/yr
Maximum No. 2 Fuel Oil Usage =	2,537,271	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per day (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	10.0	20.0	30.00	48,180	1.4E+06	1400	0.265	12,777
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	10.0	0	10.00	48,180	4.8E+05	1400	0.265	12,777
Total					9.6E+04	1.9E+06			2.6E+04

Average Vehicle Weight Per Trip = 20.0 tons/trip
 Average Miles Per Trip = 0.265 miles/trip

Unmitigated Emission Factor, $E_f = [k * (sL/2)^{0.65} * (W/3)^{1.5} - C]$ (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.082	0.016	0.0024	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
W =	20.0	20.0	20.0	tons = average vehicle weight (provided by source)
C =	0.00047	0.00047	0.00047	lb/mi = emission factor for vehicle exhaust, brake wear, and tire wear (AP-42 Table 13.2.1-2)
sL =	0.6	0.6	0.6	g/m ² = Ubiquitous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E_f * [1 - (p/4N)]$

Mitigated Emission Factor, $E_{ext} = E_f * [1 - (p/4N)]$
 where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
 N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f =$	0.64	0.13	0.02	lb/mile
Mitigated Emission Factor, $E_{ext} =$	0.59	0.11	0.02	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	4.12	0.80	0.12	3.77	0.73	0.11	1.88	0.37	0.05
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	4.12	0.80	0.12	3.77	0.73	0.11	1.88	0.37	0.05
Totals		8.24	1.60	0.24	7.53	1.47	0.22	3.77	0.73	0.11

Methodology

Maximum Material Handling Throughput = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
 Maximum Asphalt Cement/Binder Throughput = [Annual Asphalt Production Limitation (tons/yr)] * [Percent Asphalt Cement/Binder (weight %)]
 Maximum Weight of Vehicle and Load (tons/trip) = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]
 Maximum trips per year (trip/yr) = [Throughput (tons/yr)] / [Maximum Weight of Load (tons/trip)]
 Total Weight driven per year (ton/yr) = [Maximum Weight of Vehicle and Load (tons/trip)] * [Maximum trips per year (trip/yr)]
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]
 Maximum one-way miles (miles/yr) = [Maximum trips per year (trip/yr)] * [Maximum one-way distance (mi/trip)]
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]
 Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
 Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
 Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

Abbreviations

PM = Particulate Matter
 PM10 = Particulate Matter (<10 um)
 PTE = Potential to Emit

**Appendix A: Emissions Calculations
Limited Emission Summary**

Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008

Asphalt Plant Limitations

Annual Asphalt Production Limitation =	963,600	ton/yr
Natural Gas Limitation =	355	MMCF/yr
No. 2 Fuel Oil Limitation =	2,537,271	gal/yr, and 0.50 % sulfur
Used/Waste Oil Limitation =	2,335,175	gal/yr, and 0.50 % sulfur, 1.50 % ash, 0.060 % chlorine, 0.002 % lead
PM Dryer/Mixer Limitation =	0.450	lb/ton of asphlt production
PM10 Dryer/Mixer Limitation =	0.188	lb/ton of asphlt production
PM2.5 Dryer/Mixer Limitation =	0.193	lb/ton of asphlt production
CO Dryer/Mixer Limitation =	0.130	lb/ton of asphlt production
VOC Dryer/Mixer Limitation =	0.032	lb/ton of asphlt production

Limited/Controlled Emissions

Process Description	Limited/Controlled Potential Emissions (tons/year)									
	Criteria Pollutants							Hazardous Air Pollutants		
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst Case HAP	
Ducted Emissions										
Fuel Combustion (worst case)	112.43	90.67	90.33	90.18	43.13	2.14	29.84	5.80	4.62	(hydrogen chloride)
Dryer/Mixer	216.81	90.58	92.99	27.94	26.50	15.42	62.63	5.14	1.49	(formaldehyde)
Worst Case Emissions	216.81	90.67	92.99	90.18	43.13	15.42	62.63	5.80	4.62	(hydrogen chloride)
Fugitive Emissions										
Asphalt Load-Out, Silo Filling, On-Site Yard	0.37	0.37	0.37	0	0	3.72	0.68	0.06	0.02	(formaldehyde)
Hot Oil Heating System	0	0	0	0	0	5.1E-05	0.02	5.1E-05	5.1E-05	(formaldehyde)
Material Storage Piles	0.11	0.04	0.04	0	0	0	0	0	0	
Material Processing and Handling	3.11	1.47	0.22	0	0	0	0	0	0	
Material Crushing, Screening, and Conveying	15.29	5.58	5.58	0	0	0	0	0	0	
Paved Roads (worst case)	7.53	1.47	0.22	0	0	0	0	0	0	
Volatile Organic Liquid Storage Vessels*	0	0	0	0	0	negl.	0	negl.	negl.	
Total Fugitive Emissions	26.41	8.93	6.43	0	0	3.72	0.69	0.06	0.02	(formaldehyde)
Totals Limited/Controlled Emissions	243.22	99.60	99.41	90.18	43.13	19.14	63.33	5.86	4.62	(hydrogen chloride)

negl = negligible

* Fugitive emissions from each of the volatile organic liquid storage tanks were calculated using the EPA Tanks 4.0.9d program and were determined to be negligible.

Appendix A: Emissions Calculations
Limited Emissions
Dryer/Mixer Fuel Combustion with Maximum Capacity < 100 MMBtu/hr

Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008

The following calculations determine the limited emissions created from the combustion of natural gas, fuel oil, propane, butane, or used/waste oil in the dryer/mixer and all other fuel combustion sources at the source.

Production and Fuel Limitations

Annual Asphalt Production Limitation =	963,600	ton/yr					
Natural Gas Limitation =	355	MMCF/yr					
No. 2 Fuel Oil Limitation =	2,537,271	gal/yr, and	0.50	% sulfur			
Used/Waste Oil Limitation =	2,335,175	gal/yr, and	0.50	% sulfur	1.50	% ash	0.060 % chlorine, 0.002 % lead

Limited Emissions

Criteria Pollutant	Emission Factor (units)			Limited			
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Used/Waste Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	Used/Waste Oil (tons/yr)	Worse Case Fuel (tons/yr)
PM *	1.9	2.0	96.0	0.34	2.54	112.09	112.09
PM10 *	7.6	3.3	76.5	1.35	4.19	89.32	89.32
PM2.5 *	5.7	3.3	76.5	1.01	4.19	89.32	89.32
SO2	0.6	71.0	73.5	0.11	90.07	85.82	90.07
NOx	100	20.0	19.0	17.76	25.37	22.18	25.37
VOC	5.5	0.20	1.0	0.98	0.25	1.17	1.17
CO	84	5.0	5.0	14.91916	6.34	5.84	14.92
Hazardous Air Pollutant							
HCl			4.0			4.62	4.62
Antimony			negl			negl	0
Arsenic	2.0E-04	5.6E-04	0.110	3.6E-05	7.10E-04	0.128	0.128
Beryllium	1.2E-05	4.2E-04	negl	2.1E-06	5.33E-04	negl	5.3E-04
Cadmium	1.1E-03	4.2E-04	9.3E-03	2.0E-04	5.33E-04	0.011	0.011
Chromium	1.4E-03	4.2E-04	0.020	2.5E-04	5.33E-04	0.023	0.023
Cobalt	8.4E-05		2.1E-04	1.5E-05		2.45E-04	2.5E-04
Lead	5.0E-04	1.3E-03	0.11	8.9E-05	1.60E-03	0.128	0.13
Manganese	3.8E-04	8.4E-04	0.068	6.7E-05	1.07E-03	0.079	0.08
Mercury	2.6E-04	4.2E-04		4.6E-05	5.33E-04		5.3E-04
Nickel	2.1E-03	4.2E-04	0.011	3.7E-04	5.33E-04	0.013	0.013
Selenium	2.4E-05	2.1E-03	negl	4.3E-06	2.66E-03	negl	2.7E-03
1,1,1-Trichloroethane							0
1,3-Butadiene							0
Acetaldehyde							0
Acrolein							0
Benzene	2.1E-03			3.7E-04			3.7E-04
Bis(2-ethylhexyl)phthalate			2.2E-03			2.57E-03	2.6E-03
Dichlorobenzene	1.2E-03		8.0E-07	2.1E-04		9.34E-07	2.1E-04
Ethylbenzene							0
Formaldehyde	0.075	0.061		0.013	0.077		0.077
Hexane	1.80			0.320			0.320
Phenol			2.4E-03			2.80E-03	2.8E-03
Toluene	3.4E-03			6.0E-04			6.0E-04
Total PAH Haps	negl		0.039	negl		0.046	0.046
Polycyclic Organic Matter		3.30E-03			4.19E-03		4.2E-03
Xylene							0
			Total HAPs	0.34	0.09	5.06	5.46

Abbreviations

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

SO2 = Sulfur Dioxide

NOx = Nitrous Oxides

VOC - Volatile Organic Compounds

CO = Carbon Monoxide

HAP = Hazardous Air Pollutant

HCl = Hydrogen Chloride

PAH = Polyaromatic Hydrocarbon

Methodology

Natural Gas: Limited Potential to Emit (tons/yr) = (Natural Gas Limitation (MMCF/yr)) * (Emission Factor (lb/MMCF)) * (ton/2000 lbs)

All Other Fuels: Limited Potential to Emit (tons/yr) = (Fuel Limitation (gals/yr)) * (Emission Factor (lb/kgal)) * (kgal/1000 gal) * (ton/2000 lbs)

Sources of AP-42 Emission Factors for fuel combustion:

Natural Gas: AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4

No. 2, No.4, and No.6 Fuel Oil: AP-42 Chapter 1.3 (dated 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11

Waste Oil: AP-42 Chapter 1.11 (dated 10/96), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5

Notes

* PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 emission factor is condensable PM2.5 only
Where PM2.5 emission factors are absent, it is assumed that PM2.5 emissions = PM10 emissions

Appendix A: Emissions Calculations
Limited Emissions
Dryer/Mixer
Volatile Organic Compounds and Hazardous Air Pollutants

Company Name: R-Mix, LLC
 Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
 FESOP Renewal No: 177-26904-05220
 Reviewer: Hannah L. Desrosiers
 Date Submitted: August 22, 2008

The following calculations determine the limited emissions from the aggregate drying/mixing

Annual Asphalt Production Limitation =	963,600	ton/yr
PM Dryer/Mixer Limitation =	0.450	lb/ton of asphalt production
PM10 Dryer/Mixer Limitation =	0.188	lb/ton of asphalt production
PM10 Dryer/Mixer Limitation =	0.193	lb/ton of asphalt production
CO Dryer/Mixer Limitation =	0.130	lb/ton of asphalt production
VOC Dryer/Mixer Limitation =	0.032	lb/ton of asphalt production

Criteria Pollutant	Emission Factor or Limitation (lb/ton)			Limited/Controlled Potential to Emit (tons/yr)			Worse Case PTE
	Drum-Mix Plant (dryer/mixer, controlled by fabric filter)			Drum-Mix Plant (dryer/mixer, controlled by fabric filter)			
	Natural Gas	No. 2 Fuel Oil	No. 6 Fuel Oil or Waste Oil	Natural Gas	No. 2 Fuel Oil	No. 6 Fuel Oil or Waste Oil	
PM	0.45	0.45	0.45	216.8	216.8	216.8	216.81
PM10 *	0.188	0.188	0.188	90.6	90.6	90.6	90.58
PM2.5 *	0.193	0.193	0.193	93.0	93.0	93.0	92.99
SO2	0.0034	0.011	0.058	1.6	5.3	27.9	27.94
NOx	0.026	0.055	0.055	12.5	26.5	26.5	26.50
VOC	0.032	0.032	0.032	15.4	15.4	15.4	15.42
CO	0.13	0.13	0.13	62.6	62.6	62.6	62.63
Hazardous Air Pollutant							
HCl			2.10E-04			0.10	0.10
Antimony	1.80E-07	1.80E-07	1.80E-07	8.67E-05	8.67E-05	8.67E-05	8.67E-05
Arsenic	5.60E-07	5.60E-07	5.60E-07	2.70E-04	2.70E-04	2.70E-04	2.70E-04
Beryllium	negl	negl	negl	negl	negl	negl	0
Cadmium	4.10E-07	4.10E-07	4.10E-07	1.98E-04	1.98E-04	1.98E-04	1.98E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	2.65E-03	2.65E-03	2.65E-03	2.65E-03
Cobalt	2.60E-08	2.60E-08	2.60E-08	1.25E-05	1.25E-05	1.25E-05	1.25E-05
Lead	6.20E-07	1.50E-05	1.50E-05	2.99E-04	7.23E-03	7.23E-03	7.23E-03
Manganese	7.70E-06	7.70E-06	7.70E-06	3.71E-03	3.71E-03	3.71E-03	3.71E-03
Mercury	2.40E-07	2.60E-06	2.60E-06	1.16E-04	1.25E-03	1.25E-03	1.25E-03
Nickel	6.30E-05	6.30E-05	6.30E-05	3.04E-02	3.04E-02	3.04E-02	0.03
Selenium	3.50E-07	3.50E-07	3.50E-07	1.69E-04	1.69E-04	1.69E-04	1.69E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	1.93E-02	1.93E-02	1.93E-02	0.02
Acetaldehyde			1.30E-03			0.63	0.63
Acrolein			2.60E-05			1.25E-02	0.01
Benzene	3.90E-04	3.90E-04	3.90E-04	0.19	0.19	0.19	0.19
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.12	0.12	0.12	0.12
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	1.49	1.49	1.49	1.49
Hexane	9.20E-04	9.20E-04	9.20E-04	0.44	0.44	0.44	0.44
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.02	0.02	0.02	0.02
MEK			2.00E-05			0.01	0.01
Propionaldehyde			1.30E-04			0.06	0.06
Quinone			1.60E-04			0.08	0.08
Toluene	1.50E-04	2.90E-03	2.90E-03	0.07	1.40	1.40	1.40
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.09	0.42	0.42	0.42
Xylene	2.00E-04	2.00E-04	2.00E-04	0.10	0.10	0.10	0.10

Total HAPs **5.14**
 Worst Single HAP **1.49 (formaldehyde)**

Methodology

Limited/Controlled Potential to Emit (tons/yr) = (Annual Asphalt Production Limitation (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
 Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-3, 11.1-7, 11.1-8, 11.1-10, and 11.1-12

Abbreviations

VOC - Volatile Organic Compounds
 HCl = Hydrogen Chloride
 SO2 = Sulfur Dioxide
 HAP = Hazardous Air Pollutant
 PAH = Polyaromatic Hydrocarbon

Notes

* Where PM2.5 emission factors are absent, it is assumed that PM2.5 emissions = PM10 emissions

**Appendix A: Emissions Calculations
Fuel Equivalency Calculations
Fuel Combustion Units with Maximum Capacity < 100 MMBtu/hr**

**Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008**

*Note: these equivalencies are related back to the No. 2 Fuel Oil (assumed to be the predominant fuel used at this source).

SO2 Equivalency						
Fuel Type	Limited Sulfur Content	Limited Sulfur Content Units	AP-42 Emission Factor	Emission Factor Units	Fuel Equivalency	Fuel Equivalency Units
Natural Gas	NA	NA	0.6	lb/MMCF	118	MMCF natural gas / 1000 gal No. 2 fuel oil
No. 2 Fuel Oil	0.50	% by weight	71.00	lb/kgal	1000	gal No. 2 fuel oil / 1000 gal No. 2 fuel oil
Waste Oil	0.50	% by weight	73.50	lb/kgal	966	gal recycled fuel oil / 1000 gal No. 2 fuel oil

Methodology

Fuel Equivalency = [AP-42 Emission Factor for No. 2 fuel oil (lb/kgal)] / [AP-42 Emission Factor for any fuel type (lb/kgal or lb/MMCF)]

Sources of AP-42 Emission Factors for fuel combustion:

Natural Gas (boiler < 100 MMBtu/hr): AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1 and 1.4-2

No. 2 fuel oil (industrial boiler < 100 MMBtu/hr): AP-42 Chapter 1.3 (dated 9/98), Table 1.3-1

Waste Oil (small boiler): AP-42 Chapter 1.11 (dated 10/96), Table 1.11-2

**Appendix B: Emissions Calculations
PSD Significant Emission Rate Modeling Test**

Company Name: R-Mix, LLC
Address City IN Zip: 2583 South State Road 1, Cambridge City, IN 47327
FESOP Renewal No: 177-26904-05220
Reviewer: Hannah L. Desrosiers
Date Submitted: August 22, 2008

	PM10	SO2	NOx	CO	Pb
Limited (Tons/yr)	90.58	27.94	26.50	62.63	0.13
Control Efficiency (%)	95%	0%	0%	0%	0%
Limited/Controlled (Tons/yr)	4.53	27.94	26.50	62.63	0.13
Limited/Controlled (lbs/hr)	1.03	6.38	6.05	14.30	0.03
PSD Significant threshold	3.42	9.13	9.13	22.83	0.137
Threshold exceeded?	No	No	No	No	No