



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 28, 2011

RE: Asphalt Supply / 019-29509-03321

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**

**Asphalt Supply Co., Inc.
4700 Utica Sellersburg Road
Sellersburg, Indiana 47172**

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

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

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

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation, or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F019-29509-03321	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 28, 2011 Expiration Date: April 28, 2021

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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 plant.

Source Address:	4700 Utica Sellersburg Road, Sellersburg, Indiana 47172
General Source Phone Number:	(812) 246-5484
SIC Code:	2951
County Location:	Clark
Source Location Status:	Nonattainment for PM2.5 standard Attainment for all other 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) stationary drum hot-mix asphalt plant, identified as EU1, constructed in 1992, with a maximum throughput capacity of two hundred sixty (260) tons of raw material per hour (derated from four hundred (400) tons per hour in 2008), processing recycled shingles (certified asbestos free - factory seconds and/or post consumer waste, only) in the aggregate mix, equipped with one (1) one hundred fifty (150) million British thermal units per hour (MMBtu/hr) No. 4 residual fuel oil fired burner, identified as EU1C, using No. 2 distillate fuel oil as a backup fuel, controlling particulate emissions with one (1) jet pulse baghouse, identified as DS1, and exhausting to one (1) stack. This source does not use slag in their aggregate mix, and does not manufacture and/or produce cold-mix asphalt. Additionally, no grinding of shingles, and/or crushing of RAP, occurs at this source.
- (b) Material processing, handling, screening, and conveying operations, constructed in 1992, uncontrolled and exhausting to the outside atmosphere, and consisting of the following:
 - (1) Aggregate storage piles consisting of limestone, sand, pre-crushed recycled asphalt pavement (RAP), and pre-ground shingles (factory seconds and/or post consumer waste, only);
 - (A) Outdoor limestone storage piles, having a maximum height of twenty-five (25) feet and a maximum storage capacity of thirty thousand (30,000) tons;
 - (B) Outdoor natural sand storage piles, having a maximum height of fifteen (15) feet and a maximum storage capacity of five thousand (5,000) tons;

- (C) One (1) covered manufacturing sand storage shed, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons;
 - (D) Two (2) covered pre-crushed RAP storage sheds, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons, each;
 - (E) One (1) covered pre-ground Shingles (certified asbestos free - factory seconds and/or post consumer waste, only) storage shed, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons.
- (2) Six (6) aggregate cold feed bins;
 - (3) One (1) pre-crushed RAP feeder bin.
 - (4) One (1) pre-ground shingles feeder bin.
 - (5) Two (2) belt conveyors;
 - (6) One (1) aggregate scalping screen;
 - (7) One (1) bucket elevator; and
 - (8) Three (3) one hundred forty (140) ton storage silos;

Under 40 CFR 60.90, Subpart I - New Source Performance Standards for Hot Mix Asphalt Facilities, this drum hot-mix asphalt operation is considered an affected 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, identified as EU1D, constructed in 1992, including one (1) No. 2 distillate fuel oil fired hot oil heater, with a maximum rated heat input capacity of one and five tenths (1.5) MMBtu/hr, uncontrolled and exhausting to one (1) stack; [326 IAC 6.5]
- (b) Two (2) liquid asphalt storage tanks, identified as Tank 1 and Tank 2, built prior to 1983 and installed in 1992, with a maximum storage capacity of 15,000 gallons, each, uncontrolled and exhausting to the atmosphere; [326 IAC 8-9]
- (c) One (1) No. 2 distillate fuel oil storage tank, identified as Tank 3, built prior to 1984 and installed in 1992, with a maximum storage capacity of 7,000 gallons, uncontrolled and exhausting to the atmosphere; [326 IAC 8-9]
- (d) One (1) No. 4 residual fuel oil storage tank, identified as Tank 4, installed in 1992, with a maximum storage capacity of 10,000 gallons, uncontrolled and exhausting to the atmosphere; [326 IAC 8-9]
- (e) Paved and unpaved roads and parking lots with public access. [326 IAC 6-5]
- (f) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

- (g) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids;
- (h) Two (2), one hundred (100) pound butane storage cylinders, used for the ignition of the fuel in the hot oil heating system;
- (i) Baghouse maintenance operations, including the replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (j) One (1) laboratory, as defined in 326 IAC 2-7-1(20)(C).
- (k) One (1) maintenance shop.

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, F019-29509-03321, 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. 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) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
- (1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

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

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

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

The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.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, or Southeast Regional Office 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 Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Southeast Regional Office phone: (812) 358-2027; fax: (812) 358-2058.

- (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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.

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

-
- (a) All terms and conditions of permits established prior to F019-29509-03321 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 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.16 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 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 does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.18 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.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 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.21 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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.22 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 no later than 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.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Overall Source Limit [326 IAC 2-8]

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

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) 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.3 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

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

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

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

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

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

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

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 two hundred sixty (260) linear feet on pipes or one hundred sixty (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 demolitions 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 that meets the requirements of 326 IAC 2-8-5(a)(1) 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) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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 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.13 Emergency Reduction Plans (ERPs) [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.14 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.15 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

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

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown, or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

C.16 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 submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.17 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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.18 General Reporting Requirements [326 IAC 2-8-4(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 except that 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. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:

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) 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.19 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 applicable standards for recycling and emissions reduction.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-8-4(10)]: Drum, Hot-mix Asphalt Plant

- (a) One (1) stationary drum hot-mix asphalt plant, identified as EU1, constructed in 1992, with a maximum throughput capacity of two hundred sixty (260) tons of raw material per hour (derated from four hundred (400) tons per hour in 2008), processing recycled shingles (certified asbestos free - factory seconds and/or post consumer waste, only) in the aggregate mix, equipped with one (1) one hundred fifty (150) million British thermal units per hour (MMBtu/hr) No. 4 residual fuel oil fired burner, identified as EU1C, using No. 2 distillate fuel oil as a backup fuel, controlling particulate emissions with one (1) jet pulse baghouse, identified as DS1, and exhausting to one (1) stack. This source does not use slag in their aggregate mix, and does not manufacture and/or produce cold-mix asphalt. Additionally, no grinding of shingles, and/or crushing of RAP, occurs at this source.
- (b) Material processing, handling, screening, and conveying operations, constructed in 1992, uncontrolled and exhausting to the outside atmosphere, and consisting of the following:
- (1) Aggregate storage piles consisting of limestone, sand, pre-crushed recycled asphalt pavement (RAP), and pre-ground shingles (factory seconds and/or post consumer waste, only);
 - (A) Outdoor limestone storage piles, having a maximum height of twenty-five (25) feet and a maximum storage capacity of thirty thousand (30,000) tons;
 - (B) Outdoor natural sand storage piles, having a maximum height of fifteen (15) feet and a maximum storage capacity of five thousand (5,000) tons;
 - (C) One (1) covered manufacturing sand storage shed, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons;
 - (D) Two (2) covered pre-crushed RAP storage sheds, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons, each;
 - (E) One (1) covered pre-ground Shingles (certified asbestos free - factory seconds and/or post consumer waste, only) storage shed, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons.
 - (2) Six (6) aggregate cold feed bins;
 - (3) One (1) pre-crushed RAP feeder bin.
 - (4) One (1) pre-ground shingles feeder bin.
 - (5) Two (2) belt conveyors;
 - (6) One (1) aggregate scalping screen;
 - (7) One (1) bucket elevator; and
 - (8) Three (3) one hundred forty (140) ton storage silos;

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

Insignificant Activities

- (a) One (1) liquid asphalt cement hot oil heating system, identified as EU1D, constructed in 1992, including one (1) No. 2 distillate fuel oil fired hot oil heater, with a maximum rated heat input capacity of one and five tenths (1.5) MMBtu/hr, uncontrolled and exhausting to one (1) stack; [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.1.1 PSD Minor Limit [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

- (a) The asphalt production rate shall not exceed 600,000 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 seven hundred fifteen thousandths (0.715) 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 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 Limitations [326 IAC 2-8-4][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4, the Permittee shall comply with the following:

- (a) The asphalt production rate shall not exceed 600,000 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 two hundred ninety-four thousandths (0.294) pounds of PM10 per ton of asphalt produced.
- (c) PM2.5 emissions from the dryer/mixer shall not exceed three hundred thirteen thousandths (0.313) pounds of PM2.5 per ton of asphalt produced.
- (d) CO emissions from the dryer/mixer shall 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 and CO from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5 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), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-1.1-5 (Nonattainment New Source Review), not applicable.

D.1.3 Fuel Usage Limitations [326 IAC 2-8-4][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4, the Permittee shall comply with the following:

- (a) Sulfur Content Specifications
- (1) The sulfur content of the No. 2 fuel oil shall not exceed five-tenths (0.5) percent by weight.
- (2) The sulfur content of the No. 4 residual fuel oil shall not exceed five-tenths (0.5) percent by weight.

(b) Single Fuel Usage Limitations:

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

- (1) No. 2 distillate fuel oil usage in the dryer/mixer burner shall not exceed 2,694,875 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month; and
- (2) No. 4 residual fuel oil usage in the dryer/mixer burner shall not exceed 2,437,403 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) Multiple Fuel Usage Limitation:

When combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, emissions shall be limited as follows:

- (1) Sulfur dioxide SO₂ emissions from the dryer/mixer burner shall not exceed ninety-five and sixty-seven (95.67) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) Nitrogen oxides NO_x emissions from the dryer/mixer burner shall not exceed fifty-seven and twenty-eight (57.28) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits, combined with the limited potential to emit SO₂ and NO_x from all other emission units at this source, shall limit the source-wide total potential to emit of SO₂ and NO_x 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 Slag Usage Limitations [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 the 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.1.5 Shingle Usage Limitations [326 IAC 2-8-4][326 IAC 2-2][326 IAC 2-4.1]

Pursuant to 326 IAC 2-8-4, and in order to limit Hazardous Air Pollutant (HAP) emissions from the dryer/mixer, the Permittee shall use only certified asbestos-free factory seconds and/or post consumer waste shingles as an additive in its aggregate mix.

Compliance with these limits, combined with the limited PTE from all other emission units at this source, shall limit the source-wide total potential to emit any single HAP 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 Particulate Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2 (Particulate Matter Limitations except Lake County), particulate matter (PM) emissions from the hot-mix asphalt dryer/mixer, hot oil heater, and any enclosed material handling, screening, and/or conveying systems, shall each not exceed three-hundredths (0.03) grains per dry standard cubic foot of exhaust air.

D.1.7 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1][326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), the Permittee shall comply with the following:

- (a) The sulfur dioxide (SO₂) emissions from the dryer/mixer burner and hot oil heater, each, shall not exceed five-tenths (0.5) pounds per MMBtu when using distillate oil.
- (b) The sulfur dioxide (SO₂) emissions from the dryer/mixer burner shall not exceed one and six tenths (1.6) pounds per MMBtu heat input when using residual oil.
- (c) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

Note: No. 2 fuel oil is considered distillate oil and No. 4 fuel oil is considered residual oil.

D.1.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

In order to render the requirements of 326 IAC 8-1-6 not applicable, the Permittee shall comply with the following:

- (a) The asphalt production rate shall not exceed 600,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) VOC emissions from the dryer/mixer shall not exceed thirty-two thousandths (0.032) pounds of VOC per ton of asphalt produced.

Compliance with these limits shall limit the VOC emissions from the dryer/mixer to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

D.1.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for this facility and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.10 Particulate Control

- (a) In order to comply with Conditions D.1.1, D.1.2, and D.1.6, the baghouse for particulate control shall be in operation and control emissions from the dryer/mixer at all times when the dryer/mixer is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.1.11 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Conditions D.1.1(b) and D.1.6, the Permittee shall perform PM testing of the dryer/mixer not later than five (5) years from the most recent valid compliance demonstration, utilizing methods approved by the Commissioner. This test 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing

contains the Permittee's obligation with regard to the performance testing required by this condition.

- (b) In order to demonstrate compliance with Conditions D.1.2(b), D.1.2(c), and D.1.6, the Permittee shall perform PM10 and PM2.5 testing of the dryer/mixer not later than five (5) years from the most recent valid compliance demonstration, utilizing methods 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM.

D.1.12 Multiple Fuel Usage / Sulfur Dioxide (SO₂) & Nitrogen Oxide (NO_x) Emissions

In order to comply with Condition D.1.3(c), the Permittee shall limit fuel usage in the dryer/mixer burner according to the following formulas:

- (a) Sulfur dioxide (SO₂) emissions shall be determined using the following equation:

$$S = \frac{F(0.071) + R(0.0785)}{2,000 \text{ lbs/ton}}$$

Where:

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

F = gallons of No. 2 distillate fuel oil used in dryer/mixer burner in previous 12 months

R = gallons of No. 4 residual fuel oil used in dryer/mixer burner in previous 12 months

Emission Factors:

No. 2 Fuel Oil = 0.071 pounds per gallon of No. 2 distillate fuel oil;

No. 4 Fuel Oil = 0.0785 pounds per gallon of No. 4 residual fuel oil;

- (b) Nitrogen oxide (NO_x) emissions shall be determined using the following equation:

$$N = \frac{[F(0.024) + R(0.047)]}{2000}$$

Where:

N = tons of nitrogen oxide emissions for previous 12 consecutive month period;

F = gallons of No. 2 distillate fuel oil used in dryer/mixer burner in previous 12 months;

R = gallons of No. 4 residual fuel oil used in dryer/mixer burner in previous 12 months;

Emission Factors

No. 2 Fuel Oil = 0.024 pounds per gallon of No. 2 distillate fuel oil;

No. 4 Fuel Oil = 0.047 pounds per gallon of No. 4 residual fuel oil;

D.1.13 Shingle Asbestos Content

Pursuant to 326 IAC 2-8-4, compliance with Condition D.1.5 - Shingle Usage Limitations shall be determined utilizing one or more of the following options:

- (a) Providing shingle supplier certification that the factory second and/or post consumer waste shingles do not contain asbestos; or
- (b) Analyzing a sample of the factory second and/or post consumer waste shingles delivery to determine the asbestos content of the factory second shingles, 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 determination of noncompliance pursuant to any of the methods specified above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.14 Sulfur Dioxide Emissions and Sulfur Content

Compliance with the fuel limitations established in Conditions D.1.7(a) and D.1.7(b) - Sulfur Dioxide (SO₂) shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five tenths (0.5) pounds per million British thermal units heat input when combusting No. 2 distillate fuel oil, or one and six tenths (1.6) pounds per million British thermal units heat input when combusting No. 4 residual fuel oil, by:
 - (1) Providing vendor analysis of heat content and sulfur content of the fuel delivered, if accompanied by a vendor certification; or
 - (2) Analyzing the fuel sample to determine the sulfur content of the fuel via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Fuel samples may be collected from the fuel tank immediately after the fuel tank is filled and before any fuel 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 one hundred fifty (150) MMBtu per hour burner, 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 above shall not be refuted by evidence of compliance pursuant to the other method.

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

D.1.15 Visible Emissions Notations

- (a) Visible emission notations from each of the conveyors, screens, material transfer points, and the dryer/mixer (DS1) stack 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. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An abnormal visible emission notation is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.1.16 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse 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 baghouse is outside the normal range of two (2.0) and eight (8.0) inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.17 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

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

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.18 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.1.1(a), D.1.2(a), and D.1.8, the Permittee shall keep monthly records of the amount of asphalt processed through the dryer/mixer.
- (b) To document the compliance status with Conditions D.1.3, D.1.7, and D.1.12, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) below shall be taken monthly and shall be complete and sufficient to establish compliance with the limits established in Conditions D.1.3, D.1.7, and D.1.12.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel usage, sulfur content, and heat content, for each fuel used at the source since the last compliance determination period;

- (3) 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
- (4) If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:
 - (i) Fuel supplier certifications;
 - (ii) The name of the fuel supplier; and
 - (iii) A statement from the fuel supplier that certifies the sulfur content of the No. 2 distillate fuel oil and No. 4 residual fuel oil.

Records that may be used to document the information included in (1) through (4) may include delivery tickets, manufacturer's data, material safety data sheets (MSDS), and other documents necessary to verify the type and amount used.

- (c) To document compliance with Conditions D.1.5 - Hazardous Air Pollutants (HAPs) and D.1.13 - Shingle Asbestos Content, the Permittee shall maintain records of the information listed in items (1) through (3) below. Records that may be used to document the information included in (1) through (3) for factory seconds shingles shall be obtained each time shingles are received from a new supplier, and records that may be used to document the information included in (1) through (3) for post consumer waste shingles shall be obtained each time a new load of shingles is received from any supplier.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) A certification, signed by the owner or operator, that the records of the shingle supplier certifications represent all of the shingles used during the period; and
 - (3) If the shingle supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:
 - (A) Shingle supplier certifications;
 - (B) The name of the shingle supplier(s); and
 - (C) A statement from the shingle supplier(s) that certifies the asbestos content of the shingles from their company.
- (d) To document the compliance status with Condition D.1.15 - Visible Emissions Notations, the Permittee shall maintain daily records of the visible emission notations from each of the conveyors, screens, material transfer points, and the hot-mix asphalt dryer/mixer stack (DS1) 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).
- (e) To document the compliance status with Condition D.1.16, the Permittee shall maintain records once per day of the pressure drop during normal operation. The Permittee shall include in its daily record when the pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).
- (f) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.1.19 Reporting Requirements

- (a) A quarterly summary of the information to document compliance status with Conditions D.1.1(a), D.1.2(a), D.1.3(b), D.1.3(c), and D.1.8, shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Paved and Unpaved Roads

(b) Paved and unpaved roads and parking lots with public access. [326 IAC 2-8-4, 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 Particulate 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, PM10, and PM2.5 emissions from paved and unpaved roads according to the fugitive dust plan, which is included as Attachment A of this permit.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Storage Tanks

- (c) Two (2) liquid asphalt storage tanks, identified as Tank 1 and Tank 2, built prior to 1983 and installed in 1992, with a maximum storage capacity of 15,000 gallons, each, uncontrolled and exhausting to the atmosphere; [326 IAC 8-9]
- (d) One (1) No. 2 distillate fuel oil storage tank, identified as Tank 3, built prior to 1984 and installed in 1992, with a maximum storage capacity of 7,000 gallons, uncontrolled and exhausting to the atmosphere; [326 IAC 8-9]
- (e) One (1) No. 4 residual fuel oil storage tank, identified as Tank 4, installed in 1992, with a maximum storage capacity of 10,000 gallons, uncontrolled and exhausting to the atmosphere; [326 IAC 8-9]

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

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.1 Record Keeping Requirements [326 IAC 8-9]

- (a) Pursuant to 326 IAC 8-9-6(a), the Permittee shall keep all records for Tanks 1, 2, 3, and 4, required by this section for three (3) years unless specified otherwise. Records required by subsection (b) shall be maintained for the life of the vessel.
- (b) Pursuant to 326 IAC 8-9-6(b), the Permittee shall maintain a record for Tanks 1, 2, 3, and 4, and submit to the department a report containing the following information for each vessel:
 - (1) The vessel identification number.
 - (2) The vessel dimensions.
 - (3) The vessel capacity.

SECTION E.1

NSPS REQUIREMENTS

Emissions Unit Description: Drum, Hot-Mix Asphalt Plant

- (a) One (1) stationary drum hot-mix asphalt plant, identified as EU1, constructed in 1992, with a maximum throughput capacity of two hundred sixty (260) tons of raw material per hour (derated from four hundred (400) tons per hour in 2008), processing recycled shingles (certified asbestos free - factory seconds and/or post consumer waste, only) in the aggregate mix, equipped with one (1) one hundred fifty (150) million British thermal units per hour (MMBtu/hr) No. 4 residual fuel oil fired burner, identified as EU1C, using No. 2 distillate fuel oil as a backup fuel, controlling particulate emissions with one (1) jet pulse baghouse, identified as DS1, and exhausting to one (1) stack. This source does not use slag in their aggregate mix, and does not manufacture and/or produce cold-mix asphalt. Additionally, no grinding of shingles, and/or crushing of RAP, occurs at this source.
- (b) Material processing, handling, screening, and conveying operations, constructed in 1992, uncontrolled and exhausting to the outside atmosphere, and consisting of the following:
- (1) Aggregate storage piles consisting of limestone, sand, pre-crushed recycled asphalt pavement (RAP), and pre-ground shingles (factory seconds and/or post consumer waste, only);
 - (A) Outdoor limestone storage piles, having a maximum height of twenty-five (25) feet and a maximum storage capacity of thirty thousand (30,000) tons;
 - (B) Outdoor natural sand storage piles, having a maximum height of fifteen (15) feet and a maximum storage capacity of five thousand (5,000) tons;
 - (C) One (1) covered manufacturing sand storage shed, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons;
 - (D) Two (2) covered pre-crushed RAP storage sheds, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons, each;
 - (E) One (1) covered pre-ground Shingles (certified asbestos free - factory seconds and/or post consumer waste, only) storage shed, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons.
 - (2) Six (6) aggregate cold feed bins;
 - (3) One (1) pre-crushed RAP feeder bin.
 - (4) One (1) pre-ground shingles feeder bin.
 - (5) Two (2) belt conveyors;
 - (6) One (1) aggregate scalping screen;
 - (7) One (1) bucket elevator; and
 - (8) Three (3) one hundred forty (140) ton storage silos;

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

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.

E.1.2 Testing Requirements [40 CFR Part 60, Subpart I] [326 IAC 12-1] [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition E.1.1, the Permittee shall perform stack testing as required under NSPS 40 CFR 60, Subpart I, not later than five (5) years from the most recent valid compliance demonstration, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION

Source Name: Asphalt Supply Co., Inc.
Source Address: 4700 Utica Sellersburg Road, Sellersburg, Indiana 47172
FESOP Permit No.: F019-29509-03321

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: Asphalt Supply Co., Inc.
Source Address: 4700 Utica Sellersburg Road, Sellersburg, Indiana 47172
FESOP Permit No.: F019-29509-03321

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: _____

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

FESOP Quarterly Report

Source Name: Asphalt Supply Co., Inc.
Source Address: 4700 Utica Sellersburg Road, Sellersburg, IN 47172
FESOP Permit No.: F019-29509-03321
Facility: Hot-Mix Asphalt Plant - Dryer/Mixer
Parameter: Hot-Mix Asphalt Production
Limit: The maximum annual hot-mix asphalt production rate shall not exceed 600,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

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

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

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

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

FESOP Quarterly Report

Source Name: Asphalt Supply Co., Inc.
 Source Address: 4700 Utica Sellersburg Road, Sellersburg, IN 47172
 FESOP Permit No.: F019-29509-03321
 Facility: Dryer/mixer burner

Parameter: Single Fuel Usage

Limit: Sulfur Dioxide (SO₂) and Nitrogen Oxides (NO_x) emissions shall not exceed ninety-nine (99.0) tons per twelve (12) consecutive month period, each.

When combusting only one type of fuel in the dryer/mixer burner, the usage of fuel shall be limited as follows:

Fuel Type (units)	Fuel Usage Limit (per 12 consecutive month period)
No. 2 Distillate Fuel Oil ≤ 0.5 wt% sulfur (gallons)	2,694,875
No. 4 Residual Fuel Oil ≤ 0.5 wt% sulfur (gallons)	2,437,403

QUARTER: _____ YEAR: _____

The following fuel was the only fuel combusted over the previous 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: _____

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

FESOP Quarterly Report

Page 1 of 2

Source Name: Asphalt Supply Co., Inc.
Source Address: 4700 Utica Sellersburg Road, Sellersburg, IN 47172
FESOP Permit No.: F019-29509-03321
Facility: Dryer/mixer burner

Parameters: Multiple Fuel Usage / Sulfur Dioxide (SO₂) & Nitrogen Oxides (NO_x) Emissions

Limit: Sulfur Dioxide (SO₂) emissions from the dryer/mixer burner shall not exceed ninety-five and sixty-seven (95.67) tons per twelve (12) consecutive month period. When combusting more than one fuel in the dryer/mixer burner, the Permittee shall limit fuel usage according to the following equation:

$$S = \frac{F(E_F) + R(E_R)}{2,000 \text{ lbs/ton}}$$

where:

S = tons of sulfur dioxide emissions for a 12-month consecutive period
F = gallons of No. 2 distillate fuel oil in used in dryer/mixer burner in previous 12 months with less than or equal to 0.5% sulfur content
R = gallons of No. 4 distillate fuel oil used in dryer/mixer burner in previous 12 months with less than or equal to 0.5% sulfur
E_F = 0.071 pounds/gallon of No. 2 distillate fuel oil
E_R = 0.0785 pounds/gallon of No. 4 residual fuel oil

Limit: Nitrogen oxides (NO_x) emissions from the dryer/mixer burner shall not exceed fifty-seven and twenty-eight (57.28) tons per twelve (12) consecutive month period. When combusting more than one fuel in the dryer/mixer burner, the Permittee shall limit fuel usage according to the following equation:

$$N = \frac{F(E_F) + R(E_R)}{2,000 \text{ lbs/ton}}$$

where:

N = tons of nitrogen oxide emissions for a 12-month consecutive period
F = gallons of No. 2 distillate fuel oil used in used in the dryer/mixer burner in previous twelve (12) months
R = gallons of No. 4 distillate fuel oil used in the dryer/mixer burner in previous twelve (12) months
E_F = 0.024 lbs/gallon of No. 2 distillate fuel oil
E_R = 0.047 lbs/gallon of No. 4 distillate fuel oil

Multiple Fuel Usage

FESOP 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 (SO2) Emissions (tons per 12 months)	Nitrogen Oxides (NOx) Emissions (tons per 12 months)
Month 1	No. 2 distillate Fuel Oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			F			
	No. 4 distillate fuel oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			R			
Month 2	No. 2 distillate Fuel Oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			F			
	No. 4 distillate fuel oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			R			
Month 3	No. 2 distillate Fuel Oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			F			
	No. 4 distillate fuel oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			R			

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: _____

**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: Asphalt Supply Co., Inc.
 Source Address: 4700 Utica Sellersburg Road, Sellersburg, Indiana 47172
 FESOP Permit No.: F019-29509-03321

Months: _____ **to** _____ **Year:** _____

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements of this permit, 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: _____

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

OFFICE OF AIR QUALITY

**Asphalt Supply Company, Inc.
4700 Utica-Sellersburg Road
Sellersburg, Indiana 47172**

Attachment A

**HOT-MIX ASPHALT PLANT
FUGITIVE DUST CONTROL PLAN**

F019-29509-03321

ASPHALT PLANT SITE FUGITIVE DUST CONTROL PLAN

1. Fugitive particulate matter (dust) emissions from interior roads and parking lots shall be controlled by one or more of the following measures:
 - A. paving with asphalt.
 - B. treating with emulsified asphalt on an as needed basis.
 - C. treating with calcium chloride on an as needed basis.
 - D. treating with water on an as needed basis.
2. Fugitive particulate matter (dust) emissions from aggregate stockpiles shall be controlled by one or more of the following measures:
 - A. clean and maintain stockpile areas.
 - B. treating around the stockpile areas with water on an as needed basis.
 - C. treating the stockpiles with water on an as needed basis.
3. Fugitive particulate matter (dust) emissions from conveying of aggregates shall be controlled by treating with water on an as needed basis.
4. Fugitive particulate matter (dust) emissions from the transferring of aggregates shall be controlled by one of the following measures:
 - A. locate stockpiles as close as possible to feed bins.
 - B. limit transfer points to three foot drops or less.
 - C. apply water on an as needed basis.
5. Fugitive particulate matter (dust) emissions from transporting of aggregates shall be controlled by one of the following measures:
 - A. tarping the aggregate hauling vehicles.
 - B. insure tailgates are tight and do not leak.
 - C. maintain a 10 MPH speed limit on site.
6. Fugitive particulate matter (dust) emissions from the loading and unloading of aggregates shall be controlled by one or more of the following measures:
 - A. limit free fall distance.
 - B. limit the rate of discharge of the aggregate.
 - C. apply water on an as needed basis.

7. Material Handling Operations

- A. The size of the aggregate stockpiles will vary. Materials delivered to the plant site will be kept reasonably balanced with plant production. The actual drying and mixing of the aggregate mixture is done inside the asphalt plant. Emissions are controlled, at this point, by plant dust control systems.

8. Plan Implementation

- A. The effective date of this plan: January 24, 1995.
- B. Date of most recent update: October 12, 2010.

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

OFFICE OF AIR QUALITY

**Asphalt Supply Company, Inc.
4700 Utica-Sellersburg Road
Sellersburg, Indiana 47172**

Attachment B

Title 40: Protection of Environment

[PART 60—NEW SOURCE PERFORMANCE STANDARDS](#)

**SUBPART I - STANDARDS OF PERFORMANCE
FOR HOT MIX ASPHALT FACILITIES**

F019-29509-03321

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 weblink:

<http://ecfr.gpoaccess.gov/cji/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

Technical Support Document (TSD) for a
General Asphalt Federally Enforceable State Operating Permit
Transitioning to a Federally Enforceable State Operating Permit (FESOP)

Source Description and Location

Source Name:	Asphalt Supply Co., Inc.
Source Location:	4700 Utica Sellersburg Road, Sellersburg, IN 47172
County:	Clark
SIC Code:	2951
Permit Renewal No.:	F019-29509-03321
Permit Reviewer:	Hannah L. Desrosiers

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Asphalt Supply Co., Inc. relating to the continued operation of their existing stationary drum hot-mix asphalt plant.

History

On July 29, 2010, Asphalt Supply Co., Inc. submitted an application to the OAQ requesting to renew its General FESOP operating permit. IDEM, OAQ is no longer issuing the General FESOP permits until the standard permit language can be updated to coincide with current environmental standards and regulations. Therefore, Asphalt Supply Co., Inc. will be issued a Federally Enforceable State Operating Permit (FESOP) Renewal. Asphalt Supply Co., Inc. has confirmed that they do want the flexibility to use recycled shingles in their aggregate mix, and that they do not perform any onsite crushing, do not use slag in their aggregate mix, and do not manufacture and/or produce cold-mix asphalt. Additionally, Asphalt Supply Co., Inc. has confirmed that although this plant was originally permitted as a portable asphalt plant, it has never been moved since construction and is, in fact, a stationary source. Asphalt Supply Co., Inc. was issued its first General Asphalt FESOP Renewal (F019-22927-03321) on May 18, 2006.

Source Definition

Asphalt Supply Company, (source ID 019-03321) operates its asphalt pavement production plant in a quarry owned and operated by Hanson Aggregates Midwest Inc. (source ID 019-00021). IDEM, OAQ has examined whether the Asphalt Supply plant and Hanson's quarry are part of the same major source. The term "major source" is defined at 326 IAC 2-7-1(22). In order for these plants to be considered one major source, they must meet all three of the following criteria:

- (1) the plants must be under common ownership or common control;
- (2) the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,
- (3) the plants must be located on contiguous or adjacent properties.

The two plants have separate owners, so there is no common ownership.

IDEM's Nonrule Policy Document Air-005 sets out two independent tests to determine if common control exists. The first test, the auxiliary activity test, determines whether one plant performs an auxiliary activity which directly serves the purpose of a primary activity and whether the owner or operator of the primary activity has a major role in the day-to-day operations of the auxiliary activity. An auxiliary activity directly

serves the purpose of a primary activity by supplying a necessary raw material to the primary activity or performing an integral part of the production process for the primary activity. Day to day control of the auxiliary activity by the primary activity may be evidenced by several factors including the auxiliary providing a majority of its output to the primary, the auxiliary unable to provide products or services to a third party without the primary's consent, a contract that gives the primary the ability to assume control of the auxiliary or a requirement that the auxiliary submit periodic reports to the primary.

Hanson's quarry will be an auxiliary activity since it will supply 20% to 30% of its aggregate to the asphalt plant. However, there is no evidence that the asphalt plant will have any day to day control of Hanson's quarry. The quarry will provide most of its output to other customers, it doesn't need Asphalt Supply's consent to sell to other customers, Asphalt Supply has no contractual ability to assume control of the quarry and the quarry is not required to submit periodic reports to Asphalt Supply. Therefore the first common control test is not met.

The second common control test in the nonrule policy is the "but/for" test. This test focuses on whether the auxiliary activity would exist absent the needs of the primary activity. If all or a majority of the output of the auxiliary activity is consumed by the primary activity the but/for test is satisfied. Less than fifty percent (50%) of the quarry's output will be dedicated to the asphalt plant. If Asphalt Supply were to close its operation, the quarry could reduce its output or find other customers for its aggregate. Therefore, the second common control test is also not met. Since neither control test is met, there is no common control and the first part of the major source definition is not met.

The SIC Code Manual of 1987 sets out how to determine the proper SIC Code for each type of business. More information about SIC Codes is available at http://www.osha.gov/pls/imis/sic_manual.html on the internet. Hanson's quarry has the two-digit SIC Code 14 for the Major Group Mining and Quarrying of Nonmetallic Minerals, Except Fuels. The asphalt plant has the two-digit SIC Code 29 for the Major Group Petroleum Refining and Related Industries. Therefore, the two plants do not have the same two-digit SIC code.

A plant is a support facility to another plant if it dedicates fifty percent (50%) or more of its output to the other plant. The quarry will not be dedicating fifty percent (50%) or more of its output to the asphalt plant. The asphalt plant will not dedicate any of its asphalt pavement production to the quarry. Since the plants have different SIC Codes and neither is a support facility to the other, they do not meet the second part of the major source definition.

The two plants will be located on the same property, so the third part of the definition is met. Since the plants do not meet all three parts of the major source definition, IDEM, OAQ has determined that the two plants are not part of the same major source.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

- (a) One (1) stationary drum hot-mix asphalt plant, identified as EU1, constructed in 1992, with a maximum throughput capacity of two hundred sixty (260) tons of raw material per hour (derated from four hundred (400) tons per hour in 2008), processing recycled shingles (certified asbestos free - factory seconds and/or post consumer waste, only) in the aggregate mix, equipped with one (1) one hundred fifty (150) million British thermal units per hour (MMBtu/hr) No. 4 residual fuel oil fired burner, identified as EU1C, using No. 2 distillate fuel oil as a backup fuel, controlling particulate emissions with one (1) jet pulse baghouse, identified as DS1, and exhausting to one (1) stack. This source does not use slag in their aggregate mix, and does not manufacture and/or produce cold-mix asphalt. Additionally, no grinding of shingles, and/or crushing of RAP, occurs at this source.
- (b) Material processing, handling, screening, and conveying operations, constructed in 1992, uncontrolled and exhausting to the outside atmosphere, and consisting of the following:

- (1) Aggregate storage piles consisting of limestone, sand, pre-crushed recycled asphalt pavement (RAP), and pre-ground shingles (factory seconds and/or post consumer waste, only);
 - (A) Outdoor limestone storage piles, having a maximum height of twenty-five (25) feet and a maximum storage capacity of thirty thousand (30,000) tons;
 - (B) Outdoor natural sand storage piles, having a maximum height of fifteen (15) feet and a maximum storage capacity of five thousand (5,000) tons;
 - (C) One (1) covered manufacturing sand storage shed, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons;
 - (D) Two (2) covered pre-crushed RAP storage sheds, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons, each;
 - (E) One (1) covered pre-ground Shingles (certified asbestos free - factory seconds and/or post consumer waste, only) storage shed, having a maximum height of thirteen (13) feet and a maximum storage capacity of eight hundred (800) tons.
- (2) Six (6) aggregate cold feed bins;
- (3) One (1) pre-crushed RAP feeder bin.
- (4) One (1) pre-ground shingles feeder bin.
- (5) Two (2) belt conveyors;
- (6) One (1) aggregate scalping screen;
- (7) One (1) bucket elevator; and
- (8) Three (3) one hundred forty (140) ton storage silos;

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

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

No unpermitted emission units were discovered operating at this existing source during this review process.

Emission Units and Pollution Control Equipment Removed From the Source

No emission units have been removed from this existing source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities:

- (a) One (1) liquid asphalt cement hot oil heating system, identified as EU1D, constructed in 1992, including one (1) No. 2 distillate fuel oil fired hot oil heater, with a maximum rated heat input capacity of one and five tenths (1.5) MMBtu/hr, uncontrolled and exhausting to one (1) stack; [326 IAC 6.5]

- (b) Two (2) liquid asphalt storage tanks, identified as Tank 1 and Tank 2, built prior to 1983 and installed in 1992, with a maximum storage capacity of 15,000 gallons, each, uncontrolled and exhausting to the atmosphere; [326 IAC 8-9]
- (c) One (1) No. 2 distillate fuel oil storage tank, identified as Tank 3, built prior to 1984 and installed in 1992, with a maximum storage capacity of 7,000 gallons, uncontrolled and exhausting to the atmosphere; [326 IAC 8-9]
- (d) One (1) No. 4 residual fuel oil storage tank, identified as Tank 4, installed in 1992, with a maximum storage capacity of 10,000 gallons, uncontrolled and exhausting to the atmosphere; [326 IAC 8-9]
- (e) Paved and unpaved roads and parking lots with public access. [326 IAC 6-5]
- (f) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (g) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids;
- (h) Two (2), one hundred (100) pound butane storage cylinders, used for the ignition of the fuel in the hot oil heating system;
- (i) Baghouse maintenance operations, including the replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (j) One (1) laboratory, as defined in 326 IAC 2-7-1(20)(C).
- (k) One (1) maintenance shop.

Existing Approvals

The source has been operating under General Asphalt FESOP Renewal No.: F019-22927-03321, issued on May 18, 2006

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 pending enforcement actions related to this existing source.

Emission Calculations

See Appendices A.1 and A.2 of this TSD for detailed emission calculations.

County Attainment Status

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

Pollutant	Designation
SO2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O3	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM10	Unclassifiable effective November 15, 1990.
PM2.5	Basic nonattainment designation effective federally April 5, 2005.
NO2	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Attainment effective October 23, 2001, for the 1-hour ozone standard for the Louisville area, including Clark County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standard (NAAQS) for purposes of 40 CFR Part 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005.	

- (a) Ozone Standards
 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. Clark 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
 Clark County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. On May 8, 2008, U.S. EPA promulgated specific New Source Review rules for PM2.5 emissions. These rules became effective on July 15, 2008. Therefore, direct PM2.5 and SO2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the "Potential to Emit After Issuance" section, below.
- (c) Other Criteria Pollutants
 Clark 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, there is an applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions, from the affected facility (facilities) to which the New Source Performance Standard is applicable, are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Portable Source Status

This source did not relocate during the permit term. Therefore, this source is now considered a stationary source. The source ID will remain 019-03321 to ensure the history of the source is maintained in IDEM's tracking systems.

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	32,013.37
PM10 ⁽¹⁾	7,441.34
PM2.5	1,725.82
SO2	371.72
NOx	221.50
VOC	55.96
CO	151.56
Total HAPs ⁽²⁾	12.47
Maximum (Worst Case) HAP	3.63 (formaldehyde)

NOTES

- (1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal ten (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 2,2,4 trimethylpentane, acetaldehyde, benzene, ethylbenzene, formaldehyde, hexane, hydrogen chloride, methyl chloroform, propionaldehyde, quinone, toluene, total PAH Haps, xylenes, and nickel compounds.
- (3) Appendix A.1 of this TSD reflects the uncontrolled, unlimited, potential emissions of the source.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10, PM2.5, SO2, NOx, and CO are each equal to or greater than one hundred (100) tons per year. However, the Permittee has agreed to limit the source's PM10, PM2.5, SO2, NOx, and CO emissions, each, to less than Title V levels, therefore the Permittee 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 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 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 less than twenty-five (25) tons per year.

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 and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

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Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of FESOP Renewal (tons/year)								
	PM	*PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Ducted Emissions									
Dryer Fuel Combustion (worst case) ⁽¹⁾	9.52	11.35	11.35	95.67	57.28	0.34	6.74	0.23	0.10 (nickel)
Dryer/Mixer ⁽²⁾ (Process)	214.59	88.26	93.93	17.40	16.50	9.60	39.00	3.20	0.93 (formaldehyde)
Dryer/Mixer Slag Processing	0	0	0	0	0	0	0	0	N/A
Hot Oil Heater Fuel Combustion (worst case)	0.09	0.15	0.15	3.33	0.94	0.01	0.23	3.34E-03	2.86E-03 (hexane)
Total Process Emissions	214.68	88.42	94.09	99.00	58.22	9.61	39.23	3.20	0.93 (formaldehyde)
Fugitive Emissions									
Asphalt Load-Out and On-Site Yard ⁽³⁾	0.33	0.33	0.33	0	0	5.14	0.86	0.09	0.03 (formaldehyde)
Material Storage Piles	1.21	0.42	0.42	0	0	0	0	0	N/A
Material Processing and Handling ⁽³⁾	1.94	0.92	0.92	0	0	0	0	0	N/A
Material Screening, and Conveying ⁽³⁾	9.52	3.48	3.48	0	0	0	0	0	N/A
Unpaved and Paved Roads (worst case) ⁽¹⁾	21.32	5.43	0.54	0	0	0	0	0	N/A
Cold Mix Asphalt Production	0	0	0	0	0	0	0	0	N/A
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0	0	0	N/A
Volatile Organic Liquid Storage Vessels **	0	0	0	0	0	negl	0	negl	negl
Total Fugitive Emissions	34.32	10.58	4.91	0	0	5.14	0.86	0.09	0.03 (formaldehyde)
Total Limited/Controlled Emissions	249.00	99.00	99.00	99.00	58.22	14.75	40.10	3.29	0.96 (formaldehyde)
Title V Major Source Thresholds	N/A	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	N/A	250	250	250	250	N/A	N/A
Emission Offset/Nonattainment NSR Major Source Thresholds	N/A	N/A	100	N/A	N/A	N/A	N/A	N/A	N/A
negl = negligible N/A = Not applicable * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". Additionally, US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. ** 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. (1) Limited PTE based upon annual production and fuel usage limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP). (2) Limited PTE based upon annual production limit and lb/ton emission limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP). (3) Limited PTE based upon annual production limit to comply with 326 IAC 2-2 (PSD) & 326 IAC 2-8 (FESOP).									

(a) **FESOP Status**

This existing source is not a Title V major stationary source, because the potential to emit criteria pollutants from the entire source will be limited to less than the Title V major source threshold levels. In addition, this existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the potential to emit HAPs is 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 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 CO emissions from the stationary drum, hot-mix asphalt plant dryer/mixer burner, and all other associated emission units at this source, shall be limited as follows:
 - (A) The asphalt production rate shall not exceed 600,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month. *This is an existing limit for this source.*
 - (B) PM10 emissions from the dryer/mixer shall not exceed two hundred ninety-four thousandths (0.294) pounds of PM10 per ton of asphalt produced. *This is a change from the existing limit of thirteen hundredths (0.13) lbs/ton PM10 emission rate.*
 - (C) PM2.5 emissions from the dryer/mixer shall not exceed three hundred thirteen thousandths (0.313) pounds of PM2.5 per ton of asphalt produced. *This is a new limit for this source.*
 - (D) CO emissions from the dryer/mixer shall not exceed one hundred thirty thousandths (0.130) pounds of CO per ton of asphalt produced. *This is a new limit for this source.*

Compliance with these limits, combined with the potential to emit PM10, PM2.5 and CO from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5 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), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-1.1-5 (Nonattainment New Source Review), not applicable.

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

- (i) During this review, the emissions calculations were updated to reflect the source's most current "worst-case" operating conditions for all units, and includes emissions not previously counted. Additionally, since OAQ relies on the most up-to-date emission factors recommended by U.S. EPA, facility emissions have been characterized using the most recent version of U.S. EPA's AP-42. As a result, the following changes have been made to the permit:
 - (α) The existing pound per ton (lb/ton) PM10 emission limit has been increased from thirteen hundredths (0.13) lbs/ton to two hundred ninety-four thousandths (0.294) lbs/ton. This increase allows the source added operational flexibility and still ensures compliance with the one hundred (100) ton per year FESOP threshold for PM10, and make the requirements of 326 IAC 2-7 Title V (Part 70) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.
 - (β) A new 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 15, 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.

- (χ) CO emissions from the drying/mixing process, not previously accounted for in FESOP 019-22927-03321, have been calculated. In order to ensure compliance with the one hundred (100) ton per year FESOP threshold for CO, and to render the requirements of 326 IAC 2-7 Title V (Part 70) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, a new FESOP (lb/ton) limit for CO has been added to the permit;
- (ii) The cold-mix asphalt limits have been removed from the permit because the source has indicated that it does not manufacture and/or produce cold-mix asphalt.
- (iii) No VOC limit specified under 326 IAC 2-8, because the unlimited VOC PTE is less than one hundred (100) tons per year.

See Appendix A for detailed calculations.

- (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. *This is a new requirement for this source.*

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.

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;
- (3) Pursuant to 326 IAC 2-8, the Permittee shall continue to control PM₁₀, and PM_{2.5} emissions from the asphalt load-out and on-site yard, hot oil and asphalt heaters, material screening, and conveying, material processing and handling, material storage piles, and paved and unpaved roads according to the fugitive dust plan, included as Attachment A to the permit.

Compliance with this requirement, combined with the potential to emit PM, PM₁₀, and PM_{2.5} from all other emission units at this source, shall limit the source-wide total potential to emit of PM₁₀, and PM_{2.5} to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-1.1-5 (Nonattainment New Source Review), not applicable.

- (4) Pursuant to 326 IAC 2-8-4, the SO₂ and NO_x emissions from the dryer/mixer burner and hot oil heater shall be limited as follows:
- (A) Fuel Specifications
- (i) The sulfur content of the No. 2 distillate fuel oil shall continue to not exceed five-tenths percent (0.5%) by weight. *This is an existing requirement for this source.*
- (ii) The sulfur content of the No. 4 residual fuel oil shall not exceed five-tenths percent (0.5%) by weight. *This is a new requirement for this source.*
- (C) Single Fuel Usage Limitations:
When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer burner, the usage of fuel shall be limited as follows:
- (i) No. 2 distillate fuel oil usage shall not exceed 2,694,875 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 1,200,000 gallons, per twelve (12) consecutive month period; and*
- (ii) No. 4 residual fuel oil usage shall not exceed 2,437,403 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. *This is a new limit for this source.*

See Appendix A for the detailed calculations.

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

- (α) The natural gas usage limit has been removed from the permit. This source does not use natural gas in any of its combustion units.
- (β) The No. 2 distillate fuel oil usage limit has been increased to increase the operational flexibility of the source.
- (γ) The propane/butane usage limit has been removed from the permit. This source does not use propane and only uses a small amount of butane to ignite the hot oil heating system burner.
- (δ) The waste oil usage limit has been removed from the permit. This source does not use waste oil in any of its combustion units.
- (ε) A No. 4 fuel oil usage limit has been added to the permit since AP 42 contains emission factors, differentiating it from the heavier waste oils, available to calculate potential emissions.

The above listed changes were made to maximize the operational flexibility of this source and to ensure compliance with the one hundred (100) ton per year FESOP thresholds for SO₂ and NO_x, and to make the requirements of 326 IAC 2-7 Title V (Part 70) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(D) Multiple Fuel Usage Limitation:

When combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, emissions shall be limited as follows:

- (i) Sulfur dioxide (SO₂) emissions from the dryer/mixer burner shall not exceed ninety-five and sixty-seven (95.67) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The Permittee shall limit fuel usage in the dryer/mixer burner according to the following formula:

$$S = \frac{F(E_F) + R(E_R)}{2,000 \text{ lbs/ton}}$$

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

F = gallons of No. 2 distillate fuel oil used in the dryer burner and hot oil heater, combined, in previous twelve (12) months

R = gallons of No. 4 residual fuel oil used in previous twelve (12) months

Emission Factors for Sulfur Dioxide

E_F = seventy-one thousandths (0.071) pounds per gallon of No. 2 distillate fuel oil

E_R = seven hundred eighty-five ten-thousandths (0.0785) pounds per gallon of No. 4 residual fuel oil

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, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (PSD) not applicable.

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

- (α) The formula used to determine compliance with the FESOP SO₂ limit has been revised to reflect the actual fuel usage at the source.
- (ii) NO_x emissions from the dryer/mixer burner shall not exceed fifty-seven and twenty-eight (57.28) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The Permittee shall limit fuel usage in the dryer burner according to the following formula:

$$N = \frac{F(E_F) + R(E_R)}{2,000 \text{ lbs/ton}}$$

where: N = tons of nitrogen oxide emissions for twelve (12) month consecutive period
F = gallons of No. 2 distillate fuel oil used in the dryer burner in previous twelve (12) months
R = gallons of No. 4 residual fuel oil used in previous twelve (12) months

Emission Factors for Sulfur Dioxide

E_F = twenty-four thousandths (0.024) pounds per gallon of No. 2 distillate fuel oil
 E_R = forty-seven thousandths (0.047) pounds per gallon of No. 4 residual fuel oil

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 NOx 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 (PSD) not applicable.

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

(α) The formula used to determine compliance with the FESOP NOx limit has been revised to reflect the actual fuel usage at the source.

(5) Pursuant to 326 IAC 2-8-4, and in order to limit Hazardous Air Pollutant (HAP) emissions from the dryer/mixer, the Permittee shall comply with the following:

(A) The Permittee shall use only certified asbestos-free factory seconds and/or post consumer waste shingles as an additive in its aggregate mix. *This is a new requirement for this source.*

Compliance with these limits, combined with the limited PTE from all other emission units at this source, shall limit the source-wide total potential to emit any single HAP 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.

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

(i) Since Asphalt Supply Co., Inc. does not intend to grind shingles at this plant, they will be required to use/purchase only supplier certified asbestos-free factory seconds and post consumer waste shingles in their aggregate mix. This requirement will be included, because it is the physical act of grinding that releases asbestos into the air. Therefore, the company performing the grinding would need to test the shingles, prior to grinding, in order for the testing to be effective.

(b) PSD Minor Source

This existing source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit particulate matter (PM) is limited to less than two hundred fifty (250) tons per year and the potential to emit all other attainment regulated pollutants are less than two hundred fifty (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) PM emissions from the drum hot-mix asphalt plant dryer/mixer burner, and all other associated emission units at this source, shall be limited as follows:
 - (A) The asphalt production rate shall not exceed 600,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month. *This is an existing limit for this source.*
 - (B) PM emissions from the dryer/mixer shall not exceed seven hundred fifteen thousandths (0.715) pounds of PM per ton of asphalt produced. *This is a new limit for this source.*

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.

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

- (A) As noted above, the emissions calculations were updated to reflect the source's most current "worst-case" operating conditions for all units, and includes emissions not previously counted. Additionally, the most recent AP-42 emission factors have been used to characterize these emissions.
- (B) A new pound per ton (lb/ton) PM emission limit has been added to the permit to make the annual hot-mix asphalt production limit (ton/yr) more practicably enforceable, to limit PM emissions from the entire source to less than two hundred fifty (250) tons per year, making 326 IAC 2-2 PSD not applicable. This limit complements the State Rule 326 IAC 6.5 limit of three hundredths (0.03) grains per dry standard cubic foot (gr/dscf) and the Federal Rule 40 CFR 60, Subpart I limit of four hundredths (0.04) grains per dry standard cubic foot (gr/dscf).

See Appendix A for detailed calculations.

(c) Emission Offset Minor Source

Clark County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants, except PM_{2.5}. Additionally, this existing stationary source is still not considered a major source because the potential emissions for all criteria pollutants are less than the Title V Thresholds. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) do not apply to this source, and are not included in the permit.

(d) Nonattainment New Source Review

This existing source is not a major stationary source, under 326 IAC 2-1.1-5 (Nonattainment New Source Review), because the potential to emit particulate matter with a diameter less than two

and five tenths (2.5) micrometers (PM_{2.5}), is limited to less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-1.1-5 (Nonattainment New Source Review) do not apply to this source, and are not included in the permit.

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, constructed in 1992, is still subject to the New Source Performance Standard, 40 CFR 60, Subpart I (326 IAC 12), because it continues to meet the definition of a hot-mix asphalt facility, as described in §60.91, and was constructed after rule applicability date of June 11, 1973.

The units subject to this rule include the following:

- (1) Dryers
- (2) Systems for screening, handling, storing, and weighing hot aggregate
- (3) Systems for loading, transferring, and storing mineral filler
- (4) Systems for mixing hot mix asphalt
- (5) The loading, transfer, and storage systems associated with emission control systems

Therefore, pursuant to 40 CFR 60.92(a), particulate matter emissions from the above listed units, shall not exceed four hundredths (0.04) grains per dry standard cubic foot (gr/dscf), and visible emissions shall not exceed twenty percent (20%) opacity.

The source will continue to comply with this rule by using the jet pulse baghouse to limit particulate matter emissions to less than four hundredths (0.04) gr/dscf.

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

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

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

(b) 40 CFR 60, Subpart Dc - Standards for Small Industrial/Commercial/Institutional Steam Generating Units

The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit, because the one (1) No. 2 fuel oil-fired hot oil heater, with a maximum rated heat input capacity of one and five tenths (1.5) MMBtu/hr, still has a maximum design heat input capacity of less than the applicability threshold of ten (10) million British thermal units per hour.

(c) 40 CFR Part 60.110, Subpart K - Standards for Volatile Organic Liquid Storage Vessels

The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subpart K (326 IAC 12), are not included in the permit for the two (2) 15,000 gallon liquid asphalt storage tanks, identified as Tank 1 and Tank 2, manufactured prior to 1983 and installed in 1992, one (1) 7,000 gallon No. 2 distillate fuel oil storage tank, identified as Tank 3, manufactured prior to 1984 and installed in 1992, and the one (1) 10,000 gallon No. 4

residual fuel oil storage tank, identified as Tank 4, installed in 1992, because each tank was constructed/installed after May 19, 1978, and has a storage capacity less than 151, 416 liters (40,000 gallons).

(d) 40 CFR Part 60.110, Subpart Ka - Standards for Volatile Organic Liquid Storage Vessels

The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subpart Ka (326 IAC 12), are not included in the permit for the two (2) 15,000 gallon liquid asphalt storage tanks, identified as Tank 1 and Tank 2, manufactured prior to 1983 and installed in 1992, one (1) 7,000 gallon No. 2 distillate fuel oil storage tank, identified as Tank 3, manufactured prior to 1984 and installed in 1992, and the one (1) 10,000 gallon No. 4 residual fuel oil storage tank, identified as Tank 4, installed in 1992, because each tank was constructed/installed after July 23, 1984, and has a storage capacity less than 151, 416 liters (40,000 gallons).

(e) 40 CFR 60, Subpart Kb - Standards for Volatile Organic Liquid Storage Vessels

The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subpart Kb (326 IAC 12), are not included in the permit for the two (2) 15,000 gallon liquid asphalt storage tanks, identified as Tank 1 and Tank 2, manufactured prior to 1983 and installed in 1992, one (1) 7,000 gallon No. 2 distillate fuel oil storage tank, identified as Tank 3, manufactured prior to 1984 and installed in 1992, and the one (1) 10,000 gallon No. 4 residual fuel oil storage tank, identified as Tank 4, installed in 1992, because although each tank was constructed/installed after July 23, 1984, each tank still has a storage capacity of less than 75 m³ (19,813 gallons), and the liquid stored in each tank still has a maximum true vapor pressure of less than fifteen kiloPascals (15.0 kPa).

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

Tanks 1 through Tank 4 are no longer subject to the recordkeeping requirements of 40 CFR 60.116b (a) and (b) through 326 IAC 12, due to recent revisions to State Rule, 326 IAC 1-1-3 (References to the Code of Federal Regulations).

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

The requirements of the New Source Performance Standard for Asphalt Processing and Asphalt Roofing Manufacture, 40 CFR 60, Subpart UU (326 IAC 12), are not included in the permit for the existing stationary drum hot-mix asphalt plant, since it still does not blow asphalt, or an asphalt roofing plant because it still does not produce asphalt roofing products, and pursuant to §60.101(a) the stationary drum hot-mix asphalt plant is still 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.

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

The requirements of the New Source Performance Standard for Nonmetallic Mineral Processing Plants (40 CFR 60, Subpart OOO) (326 IAC 12), are not included in the permit, since the source still does not crush or grind any Recycled Asphalt Pavement (RAP), or other nonmetallic minerals. Instead, the source will be receiving pre-crushed/pre-sized materials for use in its aggregate mixes. Therefore, pursuant to 40 CFR 60.670(a)(2) stand-alone screening operations at plants without crushers or grinding mills are exempt.

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

The requirements of the New Source Performance Standard for Calciners and Dryers in Mineral Industries, 40 CFR 60, Subpart UUU (326 IAC 12), are not included in the permit, since the existing stationary drum hot-mix asphalt plant is not a mineral processing plant, meaning that it still 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.

- (i) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) 40 CFR 63, Subpart DDDDD - NESHAPs for Industrial, Commercial, and Institutional Boilers, and Process Heaters

The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD (326 IAC 20), are not included in the permit, as follows:

On June 8, 2007, the United States Court of Appeals for the District of Columbia Circuit (in *National Resource Defense Council, Sierra Club, Environmental Integrity Project vs. EPA*, No. 04-1385), vacated 40 CFR 63, Subpart DDDDD in its entirety. Additionally, since State Rule 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. However, since NESHAP 40 CFR Part 63, Subpart DDDDD has been vacated, Section 112(j) of the Clean Air Act, major sources of Hazardous Air Pollutants (HAPs), in specified source categories, requires a case-by-case MACT determination when EPA fails to promulgate a scheduled MACT Standard by the regulatory deadline. Asphalt Supply Co., Inc. is still considered an area source under Section 112 of the Clean Air Act, MACT Standards. Therefore, the source is not subject to a case-by-case MACT determination.

- (b) 40 CFR 63, Subpart LLLLL - NESHAPs for Asphalt Processing and Asphalt Roofing Manufacturing

The requirements of 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), are not included in the permit, since the existing stationary drum hot-mix asphalt plant is still 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 a part of a major source of HAP emissions.

- (c) 40 CFR 63, Subpart CCCCC - NESHAP for the Source Category Identified as Gasoline Dispensing Facilities (GDF)

The requirements of this National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Source Category Identified as Gasoline Dispensing Facilities (GDF), 40 CFR 63.11110, Subpart CCCCC (6C) (326 IAC 20), are not included in the permit, because this existing stationary drum hot-mix asphalt plant has no gasoline dispensing facilities.

- (d) 40 CFR 63, Subpart AAAAAA - NESHAP for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing

The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing, 40 CFR 63, Subpart AAAAAA (7A) (326 IAC 20), are not included in the permit, because although the stationary drum hot-mix asphalt plant is an area source of hazardous air pollutant (HAP) emissions, as defined in §63.2, it does not meet the definition of an asphalt processing operation or an asphalt roofing manufacturing operation, as defined in §63.11566, since it does not engage in the preparation of asphalt flux or asphalt roofing materials.

- (e) 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 the permit.

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, 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 still requires the use of a control device to limit the particulate emissions of PM, PM10 and PM2.5 to less than PSD and TV thresholds. Therefore a PMP is still required for these units and their associated control devices.
- (b) 326 IAC 1-7 (Stack Height)
Pursuant to 326 IAC 1-7-5(c), Asphalt concrete plants are exempted from the requirements specified in 326 IAC 1-7-3.
- (c) 326 IAC 2-1.1-5 (Nonattainment New Source Review)
Nonattainment New Source Review applicability is discussed under the "PTE of the Entire Source after Issuance of the FESOP" section above.
- (d) 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.
- (e) 326 IAC 2-3 (Emission Offset)
Emission Offset applicability is discussed under the "PTE of the Entire Source after Issuance of the FESOP" section above.
- (f) 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 the permit.
- (g) 326 IAC 2-6 (Emission Reporting)
This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, or LaPorte County, and its potential to emit lead is less than five (5) tons per year. Therefore, pursuant to 326 IAC 2-6-1(b), the source is still only subject to additional information requests as provided for in 326 IAC 2-6-5.
- (h) 326 IAC 2-8-4 (FESOP)
FESOP applicability is discussed under the "PTE of the Entire Source after Issuance of the FESOP" section above.
- (i) 326 IAC 5-1 (Opacity Limitations)
This existing source located in Sellersburg Township, Clark County, is subject to the opacity limitations specified in 326 IAC 5-1-2(1). Therefore, pursuant to 326 IAC 5-1-2(1), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

- (A) Previously, the General Asphalt FESOP limited opacity to an average of less than thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4. This permit action includes a transition to a standard FESOP, which evaluates applicability according to the rule.
- (j) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
The existing one and five tenths (1.5) MMBtu/hr No. 2 distillate fuel oil fired hot oil heater is exempt from the requirements of 326 IAC 6-2, because it is otherwise subject to the more stringent particulate limit established in 326 IAC 6.5.
 - (k) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 - (1) The existing dryer/mixer is subject to 326 IAC 6.5, and 40 CFR 60, Subpart I (Standards of Performance for Hot-mix Asphalt Facilities), which is incorporated by reference through 326 IAC 12. Therefore, pursuant to 326 IAC 6-3-1(c)(5), the existing dryer/mixer is not subject to the requirements of 326 IAC 6-3 because it is subject to the more stringent particulate limits established in 326 IAC 6.5 and 326 IAC 12.
 - (2) The existing No. 2 distillate fuel oil fired hot oil heater is not subject to the requirements of 326 IAC 6-3 because it is already otherwise subject to the more stringent particulate limit established in 326 IAC 6.5.
 - (l) 326 IAC 6-4 (Fugitive Dust Emissions)
The source is still subject to the requirements of 326 IAC 6-4, because the asphalt load-out and on-site yard, material storage piles, material processing and handling, material crushing, screening, and conveying, and paved and unpaved roads, each, have the potential to emit fugitive particulate emissions; therefore, this existing source continues to be subject to the requirements of 326 IAC 6-4. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the existing source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
 - (m) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is still subject to the requirements of 326 IAC 6-5, because the asphalt load-out and on-site yard, material storage piles, material processing and handling, material crushing, screening, and conveying, and paved and unpaved roads were constructed after December 13, 1985, and continue to have potential fugitive particulate emissions greater than twenty-five (25) tons per year. Pursuant to 326 IAC 6-5, fugitive particulate matter emissions shall continue to be controlled according to the Fugitive Dust Control Plan, initially submitted on January 24, 1995 and updated October 12, 2010, which is included as Attachment A to the permit.
 - (n) 326 IAC 6.5 (Particulate Matter Emission Limitations Except Lake County)
This existing stationary drum hot-mix asphalt plant is located in Clark County, has an unlimited potential to emit particulate matter greater than one hundred (100) tons per year, and actual particulate matter (PM) emissions greater than ten (10) tons/year, and was constructed after June 11, 1973. Additionally, this source is still not specifically listed in 326 IAC 6.5-2. Therefore,

this source is subject to 326 IAC 6-1-2(a), and pursuant to 326 IAC 6.5-1-2(a), particulate matter (PM) emissions from each of the ducted/ductable emission units at this source, including the hot-mix asphalt dryer/mixer, hot oil heater, and any enclosed material handling and conveying systems, shall each not exceed seven hundredths (0.07) grams per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grains per dry standard cubic foot (dscf)) of exhaust air.

This limitation is more stringent than the applicable requirement of four hundredths (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 four hundredths (0.04) gr/dscf specified in 326 IAC 12 and 40 CFR 60, Subpart I. This existing source will comply with this rule by using a jet pulse baghouse to limit particulate matter emissions to less than three hundredths (0.03) gr/dscf.

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

(1) The existing dryer/mixer burner is still subject to 326 IAC 7-1.1 because its SO₂ PTE is equal to or greater than twenty-five (25) tons/year, or ten (10) pounds/hour, (limited potential emissions are ninety-five and sixty-seven hundredths (95.67) tons per year). Therefore, pursuant to this rule, sulfur dioxide emissions from the dryer/mixer burner shall continue to be limited to:

(A) Five-tenths (0.5) pounds per million Btu heat input for distillate oil combustion.

(B) One and six tenths (1.6) pounds per million Btu heat input for residual oils.

Note: No. 2 fuel oil is considered distillate oil and No. 4 fuel oil is considered residual oil.

(2) The hot oil heater is not subject to the requirements of 326 IAC 7-1.1 because its SO₂ PTE is less than twenty-five (25) tons/year, or ten (10) pounds/hour. Therefore, the requirements of this rule are not included in the permit for this facility.

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

Pursuant to this rule, the source shall continue to 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.

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

(1) The unlimited potential VOC emissions from the existing dryer/mixer are greater than twenty-five (25) tons per year. However, the source shall continue to limit the VOC emissions from the existing dryer/mixer to less than twenty-five (25) tons per year, therefore, rendering the requirements of 326 IAC 8-1-6 not applicable.

In order to render the requirements of 326 IAC 8-1-6 not applicable, the existing dryer/mixer shall be limited as follows:

(A) The asphalt production rate shall not exceed 600,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month. *This is an existing limit for this source.*

(B) 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 new limit for this source.*

Compliance with these limits shall limit the potential to emit VOC from the existing dryer/mixer to less than twenty-five (25) tons per twelve (12) consecutive month period

and shall render 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

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

- (i) The most recent AP-42 emission factor has been used to characterize VOC emissions from the fuel combustion and the drying/mixing process. In order to ensure compliance with the twenty five (25) tons/yr threshold, to render the requirements of 326 IAC 8-1-6 BACT not applicable, a new (lb/ton) limit for VOC has been added to the permit;
- (2) The unlimited potential VOC emissions from each liquid asphalt storage tank, fuel oil storage tank and waste oil storage tank is less than twenty-five (25) tons per year, therefore, each liquid asphalt storage tank, fuel oil storage tank and waste oil storage tank is not subject to 326 IAC 8-1-6, and the the requirements are not included in the permit for these facilities.

See Appendix A for the detailed calculations.

- (r) 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)
The existing storage tanks (Tank 1 through Tank 4), each, continue to have a maximum storage capacity less than thirty-nine thousand (39,000) gallons, and hold liquids containing volatile organic compounds whose true vapor pressure is less than 10.5 kPa. Therefore, the requirements of 326 IAC 8-4-3 do not apply to any these tanks and are not included in the permit.
- (s) 326 IAC 8-5-2 (Asphalt paving rules)
This source still 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 permit for this source.
- (t) 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)
VOC emissions from this source are limited to less than twenty-five (25) tons per year. Therefore, this source is not subject to the requirements of 326 IAC 8-7.
- (u) 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)
This stationary source is located in Clark County and the storage tanks (Tank 1 through Tank 4), each, continue to have a capacity of less than thirty-nine thousand (39,000) gallons. Therefore, pursuant to 326 IAC 8-9-1(b), stationary vessels with a capacity of less than thirty-nine thousand (39,000) gallons are subject to the reporting and record keeping provisions of section 6(a) and 6(b) of this rule and are exempt from all other provisions of this rule.
 - (1) Pursuant to 326 IAC 8-9-6(a), records required by this rule shall be maintained for the life of the vessel (aka storage tank).
 - (2) Pursuant to 326 IAC 8-9-6(b), the Permittee shall continue to maintain a record and submit to IDEM, OAQ, a report containing the following information for each of the storage vessels (Tank 1 through Tank 4):
 - (A) the vessel identification number;
 - (B) the vessel dimensions; and
 - (C) the vessel capacity.
- (v) There are no other 326 IAC 8 Rules that are applicable to this existing stationary drum hot-mix asphalt plant.

- (w) 326 IAC 9-1 (Carbon Monoxide Emission Limits)
 This existing stationary drum hot-mix asphalt plant is still not one of the source types listed in 326 IAC 9-1-2. Therefore, the requirements of 326 IAC 9-1 are not included in the permit.
- (x) 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Category)
 The existing one (1) one hundred fifty (150) MMBtu dryer burner still does not meet the definition of an affected facility, as defined in 326 IAC 10-3-1(a), because it still has a maximum a heat input of less than two hundred fifty million (250,000,000) British thermal units per hour (MMBtu); therefore, it is still not subject to this rule and the requirements are not included in the permit.
- (y) 326 IAC 12 (New Source Performance Standards)
 See Federal Rule Applicability Section of this TSD.
- (z) 326 IAC 13-8 (Used Oil Requirements)
 Upon further review, IDEM has determined that the requirements of this rule do not need to be included in the permit, since they are regulated by another agency.
- (aa) 326 IAC 20 (Hazardous Air Pollutants)
 See Federal Rule Applicability Section of this TSD.

Compliance Determination, Monitoring and Testing Requirements

Permits issued under 326 IAC 2-7 or 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5 or 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

The compliance determination and monitoring requirements applicable to this source are as follows:

- (a) The existing dryer/mixer continues to have applicable compliance determination conditions as specified below:

Emission Unit	Control Device	Pollutant	Timeframe for Testing	Frequency of Testing
Dryer/mixer	Baghouse	PM	Within five (5) yrs of last valid test*	Once every five (5) years
Dryer/mixer	Baghouse	PM10 PM2.5	Within five (5) yrs of last valid test*	Once every five (5) years

* NOTE: The last valid stack test occurred on August 28, 2008. 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 baghouse for the dryer/mixer, shall continue to be in operation and control emissions from the dryer/mixer at all times when the dryer/mixer is in operation.

- (2) The annual hot-mix asphalt production rate will be used to verify compliance with the PSD PM emission limitation, the FESOP PM10, PM2.5, and CO emission limitations, and the BACT avoidance VOC emission limitation.
- (3) The fuel characteristics (i.e., sulfur content) and usage rates will be used to verify compliance with the SO2, and NOx, emission limitations.
- (4) A certification from each factory seconds shingle supplier is required to document that the shingles contain no asbestos. Alternately, the source may perform a test.
- (5) A certification from the supplier for each load of post consumer waste shingles is required to document that the shingles contain no asbestos.

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

- (A) The usage of liquid binder in the production of cold-mix cutback asphalt will no longer be used to verify compliance with the FESOP VOC emission limitation. The cold-mix asphalt VOC emission limit has been removed from the permit because the source has indicated that it does not manufacture and/or produce cold-mix asphalt. The source purchases what is needed, and then stores/stockpiles the remaining for future use. The cold-mix asphalt storage stockpiles will not exceed forty (40.0) tons of material, maximum, per year, and are subject to 326 IAC 8-5-2.
- (B) The used oil requirements are not included in the permit, because they are regulated by another agency

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

Emission Unit & Control Device	Parameter	Frequency	Range	Excursions and Exceedances
Dryer/mixer baghouse (DS1) stack exhaust	Visible Emissions	Once per day	normal/abnormal	Response Steps
	Pressure Drop	Once per day	2.0 to 8.0 inches	Response Steps
	Bags in baghouse	As needed	normal/abnormal	Response Steps
Conveyors, screens, and material transfer points	Visible Emissions	Once per day	normal/abnormal	Response Steps

These monitoring conditions are necessary because the baghouse used in conjunction with the hot-mix dryer/mixer must operate properly to ensure continued compliance with 40 CFR 60, Subpart I, 326 IAC 2-8 (FESOP), and 326 IAC 6.5 (Particulate Matter Limitations Except Lake County), and the limits that render 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70 Permit Program) not applicable.

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

The source will no longer be required to monitor and maintain the inlet temperature to the baghouse within a range of 200-400 degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags.

IDEM has determined that there is no process at this facility where temperature has an appreciable impact on the emission control equipment. The inlet temperature of the baghouse unit would merely measure the ambient temperature of the facility (ambient outdoor temperature). The temperature could vary by 14-20 degrees from winter to summer. Therefore, temperature is not an acceptable or meaningful parameter to observe at this facility.

Conversely, pressure drop is an indicator of a variety of conditions within the baghouse. Monitoring pressure drop can alert the operator to relative changes (such as dust cake resistance) over a period of time. The operator can use this information to chart trends and determine if the unit is operating within the optimal range as determined by baseline testing of the unit and manufacturer's specifications. Any deviations from the normal operational range of the unit, whether gradual or sudden, should alert the operator that the unit needs maintenance. Both gradual and sudden changes in the pressure drop could result in damage to the bags in the baghouse if not properly addressed. Therefore, IDEM has determined that monitoring the baghouse pressure drop is a better indicator of baghouse health.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on July 29, 2010.

The operation of this existing source shall be subject to the conditions of the attached proposed FESOP Renewal, No. 019-29509-03321. The staff recommends to the Commissioner that this FESOP Renewal be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Ms. 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 findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

**Appendix A.1: Unlimited Emissions Calculations
Entire Source**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

Asphalt Plant Maximum Capacity

Maximum Hourly Asphalt Production =	260	ton/hr							
Maximum Annual Asphalt Production =	2,277,600	ton/yr							
Maximum Annual Slag Usage =	0	ton/yr		0	% sulfur				
Maximum Dryer Fuel Input Rate =	150.0	MMBtu/hr							
Natural Gas Usage =	0	MMCF/yr							
No. 2 Fuel Oil Usage =	9,385,714	gal/yr, and		0.50	% sulfur				
No. 4 Fuel Oil Usage =	0	gal/yr, and		0	% sulfur				
Residual (No. 4, No. 5 or No. 6) Fuel Oil Usage =	9,385,714	gal/yr, and		0.50	% sulfur				
Propane Usage =	0	gal/yr, and		0	gr/100 ft3 sulfur				
Butane Usage =	0	gal/yr, and		0	gr/100 ft3 sulfur				
Used/Waste Oil Usage =	0	gal/yr, and		0	% sulfur	0	% ash	0	% chlorine, 0
Diesel Engine Oil Usage =	0	gal/yr, and							
Unlimited PM Dryer/Mixer Emission Factor =	28.0	lb/ton of asphalt production							
Unlimited PM10 Dryer/Mixer Emission Factor =	6.5	lb/ton of asphalt production							
Unlimited PM2.5 Dryer/Mixer Emission Factor =	1.5	lb/ton of asphalt production							
Unlimited VOC Dryer/Mixer Emission Factor =	0.032	lb/ton of asphalt production							
Unlimited CO Dryer/Mixer Emission Factor =	0.13	lb/ton of asphalt production							
Unlimited Slag SO2 Dryer/Mixer Emission Factor =	0	lb/ton of slag processed							

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									
Dryer Fuel Combustion (worst case)	36.67	43.71	43.71	368.39	220.56	1.31	23.46	0.84	0.40 (nickel)
Dryer/Mixer (Process)	31,886.40	7,402.20	1,708.20	66.05	62.63	36.44	148.04	12.14	3.53 (formaldehyde)
Dryer/Mixer Slag Processing	0	0	0	0	0	0	0	0	0
Hot Oil Heater Fuel Combustion (worst case)	0.09	0.15	0.15	3.33	0.94	9.39E-03	0.23	3.34E-03	2.86E-03 (hexane)
Worst Case Emissions*	31,886.49	7,402.35	1,708.35	371.72	221.50	36.45	148.28	12.14	3.53 (formaldehyde)
Fugitive Emissions									
Asphalt Load-Out, Silo Filling, On-Site Yard	1.26	1.26	1.26	0	0	19.51	3.28	0.33	0.10 (formaldehyde)
Material Storage Piles	1.19	0.41	0.41	0	0	0	0	0	0
Material Processing and Handling	7.36	3.48	0.53	0	0	0	0	0	0
Material Crushing, Screening, and Conveying	36.13	13.20	13.20	0	0	0	0	0	0
Unpaved and Paved Roads (worst case)	80.94	20.63	2.06	0	0	0	0	0	0
Cold Mix Asphalt Production	0	0	0	0	0	0	0	0	0
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0	0	0	0
Volatile Organic Liquid Storage Vessels	0	0	0	0	0	negl	0	negl	0
Total Fugitive Emissions	126.88	38.98	17.46	0	0	19.51	3.28	0.33	0.10 (formaldehyde)
Totals Unlimited/Uncontrolled PTE	32,013.37	7,441.34	1,725.82	371.72	221.50	55.96	151.56	12.47	3.63 (formaldehyde)

negl = negligible

Worst Case Fuel Combustion is based on the fuel with the highest emissions for each specific pollutant.

*Worst Case Emissions (tons/yr) = Worst Case Emissions from Dryer Fuel Combustion and Dryer/Mixer + Dryer/Mixer Slag Processing + Worst Case Emissions from Hot Oil Heater Fuel Combustion

Fuel component percentages provided by the source.

**Appendix A.1: Unlimited Emissions Calculations
Dryer/Mixer Fuel Combustion with Maximum Capacity > 100 MMBtu/hr**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

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 at the source.

Maximum Capacity

Maximum Hourly Asphalt Production =	260	ton/hr
Maximum Annual Asphalt Production =	2,277,600	ton/yr
Maximum Fuel Input Rate =	150	MMBtu/hr
Natural Gas Usage =	0	MMCF/yr
No. 2 Fuel Oil Usage =	9,385,714	gal/yr, and
No. 4 Fuel Oil Usage =	0	gal/yr, and
Residual (No. 4, No. 5 or No. 6) Fuel Oil Usage =	9,385,714	gal/yr, and
Propane Usage =	0	gal/yr, and
Butane Usage =	0	gal/yr, and
Used/Waste Oil Usage =	0	gal/yr, and
Diesel Engine Oil Usage =	0	gal/yr, and

	0.50	% sulfur
	0	% sulfur
	0.50	% sulfur
	0	gr/100 ft3 sulfur
	0	gr/100 ft3 sulfur
	0	% sulfur
	0	% ash
	0	% chlorine
	0	% lead

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units)								Unlimited/Uncontrolled Potential to Emit (tons/yr)								
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil* (lb/kgal)	Residual (No. 4, No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)	Diesel Engine (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 4, No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/Waste Oil (tons/yr)	Diesel Engine (tons/yr)	Worse Case Fuel (tons/yr)
PM	1.9	2.0	7.0	7.8	0.5	0.6	0	43.4	0	9.39	0	36.67	0	0	0	0	36.67
PM10/PM2.5	7.6	3.3	8.3	9.3	0.5	0.6	0	43.4	0	15.49	0	43.71	0	0	0	0	43.71
SO2	0.6	71.0	0	78.5	0	0	0	40.6	0	333.19	0	368.39	0	0	0	0	368.39
NOx	190	20.0	20.0	47.0	13.0	15.0	19.0	617.4	0	93.86	0	220.56	0	0	0	0	220.56
VOC	5.5	0.20	0.20	0.28	1.00	1.10	1.0	49.00	0	0.84	0	1.31	0	0	0	0	1.31
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	133.0	0	23.46	0	23.46	0	0	0	0	23.46
Hazardous Air Pollutant																	
HCl								0.0							0		0
Antimony			5.25E-03	5.25E-03						0	0.025				negl		0.02
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03				1.1E-01	0	2.63E-03	0	6.19E-03					6.2E-03
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05				negl	0	1.97E-03	0	1.30E-04			negl		2.0E-03
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04				9.3E-03	0	1.97E-03	0	1.87E-03					2.0E-03
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04				2.0E-02	0	1.97E-03	0	3.97E-03					4.0E-03
Cobalt	8.4E-05		6.02E-03	6.02E-03				2.1E-04	0		0	0.028					0.03
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03				0	0	5.91E-03	0	7.09E-03					7.1E-03
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03				6.8E-02	0	3.94E-03	0	0.014					0.01
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04					0	1.97E-03	0	5.30E-04					2.0E-03
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02				1.1E-02	0	1.97E-03	0	0.397					0.40
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04					0	9.86E-03	0	3.21E-03		negl			9.9E-03
1,1,1-Trichloroethane			2.36E-04	2.36E-04							0	1.11E-03					1.1E-03
1,3-Butadiene								5.47E-03								0	0
Acetaldehyde								1.07E-01								0	0
Acrolein								1.30E-02								0	0
Benzene	2.1E-03		2.14E-04	2.14E-04				1.31E-01	0		0	1.00E-03					1.0E-03
Bis(2-ethylhexyl)phthalate								2.2E-03								0	0
Dichlorobenzene	1.2E-03							8.0E-07	0							0	0
Ethylbenzene			6.36E-05	6.36E-05							0	2.98E-04					3.0E-04
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02					1.65E-01	0	0.286	0	0.155			0	0.29
Hexane	1.8E+00								0								0
Phenol								2.4E-03								0	0
Toluene	3.4E-03		6.20E-03	6.20E-03					5.73E-02	0	0	0.029				0	0.03
Total PAH Haps	negl		1.13E-03	1.13E-03					3.9E-02	2.35E-02	negl	5.30E-03			0	0	5.3E-03
Polycyclic Organic Matter		3.30E-03									0.015						0.02
Xylene			1.09E-04	1.09E-04								5.12E-04					5.12E-04
									Total HAPs	0	0.33	0	0.68	0	0	0	0

Methodology

Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
 Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.140 MMBtu]
 Propane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0905 MMBtu]
 Butane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0974 MMBtu]
 Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [ton/2000 lbs]
 All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (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 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11
- Propane and Butane: AP-42 Chapter 1.5 (dated 7/08), Tables 1.5-1 (assuming PM = PM10)
- 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
- Diesel Engine Oil: AP-42 Chapter 3.3 (dated 10/96), Tables 3.3-1 and 3.3-2

*Since there are no specific AP-42 HAP emission factors for combustion of No. 4 fuel oil, it was assumed that HAP emissions from combustion of No. 4 fuel oil were equal to combustion of residual or No. 6 fuel oil.

Abbreviations

- PM = Particulate Matter
- PM10 = Particulate Matter (<10 um)
- PM2.5 = Particulate Matter (< 2.5 um)
- SO2 = Sulfur Dioxide
- NOx = Nitrous Oxides
- VOC = Volatile Organic Compounds
- CO = Carbon Monoxide
- HAP = Hazardous Air Pollutant
- HCl = Hydrogen Chloride
- PAH = Polyaromatic Hydrocarbon

Appendix A.1: Unlimited Emissions Calculations Dryer/Mixer

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

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

Maximum Hourly Asphalt Production = $\frac{260}{24}$ ton/hr
Maximum Annual Asphalt Production = 2,277,600 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	Waste Oil	Natural Gas	No. 2 Fuel Oil	Waste Oil	
PM*	28	28	28	0	31,886.40	31,886.40	31,886.40
PM10*	6.5	6.5	6.5	0	7,402.20	7,402.20	7,402.20
PM2.5*	1.5	1.5	1.5	0	1,708.20	1,708.20	1,708.20
SO2**	0.0034	0.011	0.058	0	12.53	66.05	66.05
NOx**	0.026	0.055	0.055	0	62.63	62.63	62.63
VOC**	0.032	0.032	0.032	0	36.44	36.44	36.44
CO***	0.13	0.13	0.13	0	148.04	148.04	148.04
Hazardous Air Pollutant							
HCl			2.10E-04			0.239	0.24
Antimony	1.80E-07	1.80E-07	1.80E-07	0	2.05E-04	2.05E-04	2.05E-04
Arsenic	5.60E-07	5.60E-07	5.60E-07	0	6.38E-04	6.38E-04	6.38E-04
Beryllium	negl	negl	negl	0	negl	negl	0
Cadmium	4.10E-07	4.10E-07	4.10E-07	0	4.67E-04	4.67E-04	4.67E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	0	6.26E-03	6.26E-03	6.26E-03
Cobalt	2.60E-08	2.60E-08	2.60E-08	0	2.96E-05	2.96E-05	2.96E-05
Lead	6.20E-07	1.50E-05	1.50E-05	0	0.017	0.017	0.02
Manganese	7.70E-06	7.70E-06	7.70E-06	0	8.77E-03	8.77E-03	8.77E-03
Mercury	2.40E-07	2.60E-06	2.60E-06	0	2.96E-03	2.96E-03	2.96E-03
Nickel	6.30E-05	6.30E-05	6.30E-05	0	0.072	0.072	0.07
Selenium	3.50E-07	3.50E-07	3.50E-07	0	3.99E-04	3.99E-04	3.99E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	0	0.046	0.046	0.05
Acetaldehyde			1.30E-03			1.480	1.48
Acrolein			2.60E-05			0.030	0.03
Benzene	3.90E-04	3.90E-04	3.90E-04	0	0.444	0.444	0.44
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0	0.273	0.273	0.27
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	0	3.530	3.530	3.53
Hexane	9.20E-04	9.20E-04	9.20E-04	0	1.048	1.048	1.05
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0	0.055	0.055	0.05
MEK			2.00E-05	0		0.023	0.02
Propionaldehyde			1.30E-04			0.148	0.15
Quinone			1.60E-04			0.182	0.18
Toluene	1.50E-04	2.90E-03	2.90E-03	0	3.303	3.303	3.30
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0	1.002	1.002	1.00
Xylene	2.00E-04	2.00E-04	2.00E-04	0	0.228	0.228	0.23

Total HAPs 12.14
Worst Single HAP 3.53 (formaldehyde)

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 11.1-3, 11.1-7, 11.1-8, 11.1-10, and 11.1-12

Natural gas, No. 2 fuel oil, and waste oil represent the worst possible emissions scenario. AP-42 did not provide emission factors for any other fuels.

* PM, PM10, and PM2.5 AP-42 emission factors based on drum mix dryer fired with natural gas, propane, fuel oil, and waste oil. According to AP-42 fuel type does not significantly effect PM, PM10, and PM2.5 emissions.

** SO2, NOx, and VOC AP-42 emission factors are for natural gas, No. 2 fuel oil, and waste oil only.

*** CO AP-42 emission factor determined by combining data from drum mix dryer fired with natural gas, No. 6 fuel oil, and No. 2 fuel oil to develop single CO emission factor.

Abbreviations

SO2 = Sulfur Dioxide
HCl = Hydrogen Chloride

HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compounds

PAH = Polyaromatic Hydrocarbon

**Appendix A.1: Unlimited Emissions Calculations
Dryer/Mixer Slag Processing**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

The following calculations determine the unlimited emissions from the processing of slag in the aggregate drying/mixing

Maximum Annual Slag Usage* = ton/yr % sulfur

	Emission Factor (lb/ton)**	Unlimited Potential to Emit (tons/yr)
Criteria Pollutant	Slag Processing	Slag Processing
SO2	0	0

Methodology

* The maximum annual slag usage was provided by the source.

** Testing results for Slag, obtained January 9, 2009 from similar operations at Rieth-Riley Construction Co., Inc. facility located in Valparaiso, IN (permit #127-27075-05241), produced an Emission Factor of 0.54 lb/ton from slag containing 1.10% sulfur content. The source has requested a safety factor of 0.20 lb/ton be added to the tested value for use at this location to allow for a sulfur content up to 1.5%.

Unlimited Potential to Emit SO2 from Slag (tons/yr) = [(Maximum Annual Slag Usage (ton/yr)) * [Emission Factor (lb/ton)] * [ton/2000 lbs]

Abbreviations

SO2 = Sulfur Dioxide

Appendix A.1: Unlimited Emissions Calculations
Hot Oil Heater
Fuel Combustion with Maximum Capacity < 100 MMBtu/hr

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

Maximum Hot Oil Heater Fuel Input Rate = 1.50 MMBtu/hr
Natural Gas Usage = 0 MMCF/yr
No. 2 Fuel Oil Usage = 93,857 gal/yr, and 0.50 % sulfur

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		Worse Case Fuel (tons/yr)
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	
PM	1.9	2.0	0	0.094	0.09
PM10/PM2.5	7.6	3.3	0	0.155	0.15
SO2	0.6	71.0	0	3.332	3.33
NOx	100	20.0	0	0.939	0.94
VOC	5.5	0.20	0	0.009	0.01
CO	84	5.0	0	0.235	0.23
Hazardous Air Pollutant					
Arsenic	2.0E-04	5.6E-04	0	2.63E-05	2.6E-05
Beryllium	1.2E-05	4.2E-04	0	1.97E-05	2.0E-05
Cadmium	1.1E-03	4.2E-04	0	1.97E-05	2.0E-05
Chromium	1.4E-03	4.2E-04	0	1.97E-05	2.0E-05
Cobalt	8.4E-05		0		0
Lead	5.0E-04	1.3E-03	0	5.91E-05	5.9E-05
Manganese	3.8E-04	8.4E-04	0	3.94E-05	3.9E-05
Mercury	2.6E-04	4.2E-04	0	1.97E-05	2.0E-05
Nickel	2.1E-03	4.2E-04	0	1.97E-05	2.0E-05
Selenium	2.4E-05	2.1E-03	0	9.86E-05	9.9E-05
Benzene	2.1E-03		0		0
Dichlorobenzene	1.2E-03		0		0
Ethylbenzene					0
Formaldehyde	7.5E-02	6.10E-02	0	2.86E-03	2.9E-03
Hexane	1.8E+00		0		0
Phenol					0
Toluene	3.4E-03		0		0
Total PAH Haps	negl		negl		0
Polycyclic Organic Matter		3.30E-03		1.55E-04	1.5E-04
Total HAPs =			0	3.3E-03	0.003

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 lbs]

All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (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 Fuel Oil: AP-42 Chapter 1.3 (dated 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3

Abbreviations

PM = Particulate Matter
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides

PM10 = Particulate Matter (<10 um)
CO = Carbon Monoxide
HAP = Hazardous Air Pollutant

HCl = Hydrogen Chloride
PAH = Polyaromatic Hydrocarbon
VOC = Volatile Organic Compounds

Appendix A.1: Unlimited Emissions Calculations Asphalt Load-Out, Silo Filling, and Yard Emissions

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

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 =	325	F
Asphalt Volatility Factor, V =	-0.5	
Maximum Annual Asphalt Production =	2,277,600	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*	5.2E-04	5.9E-04	NA	0.59	0.67	NA	1.26
Organic PM	3.4E-04	2.5E-04	NA	0.39	0.289	NA	0.68
TOC	0.004	0.012	0.001	4.74	13.88	1.253	19.9
CO	0.001	0.001	3.5E-04	1.54	1.344	0.401	3.28

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

PM/HAPs	0.028	0.033	0	0.060
VOC/HAPs	0.070	0.176	0.019	0.265
non-VOC/HAPs	3.6E-04	3.7E-05	9.6E-05	5.0E-04
non-VOC/non-HAPs	0.34	0.20	0.09	0.63

Total VOCs	4.45	13.88	1.2	19.5
Total HAPs	0.10	0.21	0.019	0.33
Worst Single HAP				0.101
				(formaldehyde)

Methodology

The asphalt temperature and volatility factor were provided by the source.

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

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

$$\text{Total PM/PM10/PM2.5 Ef} = 0.000181 + 0.00141(-V)e^{((0.0251)(T+460)-20.43)}$$

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

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

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

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

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

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

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

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

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

*No emission factors available for PM10 or PM2.5, therefore IDEM assumes PM10 and PM2.5 are equivalent to Total PM.

Abbreviations

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

CO = Carbon Monoxide

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

TOC = Total Organic Compounds

**Appendix A.1: Unlimited Emissions Calculations
Asphalt Load-Out, Silo Filling, and Yard Emissions (continued)**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

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%	1.0E-03	1.4E-03	NA	2.4E-03
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	0.014%	1.1E-04	4.0E-05	NA	1.5E-04
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	0.13%	2.7E-04	3.8E-04	NA	6.5E-04
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	0.056%	7.4E-05	1.6E-04	NA	2.4E-04
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	0	3.0E-05	0	NA	3.0E-05
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	0	8.5E-06	0	NA	8.5E-06
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	0	7.4E-06	0	NA	7.4E-06
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	0	8.9E-06	0	NA	8.9E-06
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	0.0095%	3.0E-05	2.7E-05	NA	5.8E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	0.21%	4.0E-04	6.1E-04	NA	1.0E-03
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	0	1.4E-06	0	NA	1.4E-06
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	0.15%	1.9E-04		NA	1.9E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.01%	3.0E-03	2.9E-03	NA	5.9E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	0	1.8E-06	0	NA	1.8E-06
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	5.27%	9.2E-03	1.5E-02	NA	0.024
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	1.82%	4.9E-03	5.3E-03	NA	1.0E-02
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	0.03%	8.5E-05	8.7E-05	NA	1.7E-04
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.80%	3.1E-03	5.2E-03	NA	8.3E-03
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	0.44%	5.8E-04	1.3E-03	NA	1.9E-03
Total PAH HAPs							0.023	0.033	NA	0.056
Other semi-volatile HAPs										
Phenol		PM/HAP	---	Organic PM	1.18%	0	4.6E-03	0	0	4.6E-03

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

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

PM = Particulate Matter

HAP = Hazardous Air Pollutant

POM = Polycyclic Organic Matter

**Appendix A.1: Unlimited Emissions Calculations
Asphalt 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%	4.45	13.88	1.18	19.51
non-VOC/non-HAPS										
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	0.26%	3.1E-01	3.6E-02	8.1E-02	0.425
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	0.055%	2.2E-03	7.6E-03	5.8E-04	0.010
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.10%	3.4E-02	1.5E-01	8.9E-03	0.195
Total non-VOC/non-HAPS					7.30%	1.40%	0.346	0.194	0.091	0.63
Volatile organic HAPs										
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	0.032%	2.5E-03	4.4E-03	6.5E-04	7.6E-03
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	0.0049%	4.5E-04	6.8E-04	1.2E-04	1.3E-03
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	0.039%	2.3E-03	5.4E-03	6.1E-04	8.3E-03
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	0.016%	6.2E-04	2.2E-03	1.6E-04	3.0E-03
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	0.004%	9.9E-06	5.6E-04	2.6E-06	5.7E-04
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	0.023%	7.1E-04	3.2E-03	1.9E-04	4.1E-03
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	0	5.2E-03	0	1.4E-03	6.6E-03
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	0.038%	1.3E-02	5.3E-03	3.5E-03	0.022
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	0.69%	4.2E-03	9.6E-02	1.1E-03	0.101
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	0.10%	7.1E-03	1.4E-02	1.9E-03	0.023
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	0.00031%	8.5E-05	4.3E-05	2.3E-05	1.5E-04
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0.00027%	0	3.7E-05	0	3.7E-05
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	0.0054%	3.5E-04	7.5E-04	9.1E-05	1.2E-03
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	0	3.6E-04	0	9.6E-05	4.6E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	0.062%	9.9E-03	8.6E-03	2.6E-03	0.021
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	6.2E-05	0	1.6E-05	7.8E-05
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	0.20%	1.9E-02	2.8E-02	5.1E-03	0.052
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	0.057%	3.8E-03	7.9E-03	1.0E-03	1.3E-02
Total volatile organic HAPs					1.50%	1.30%	0.071	0.180	0.019	0.270

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

VOC = Volatile Organic Compound

HAP = Hazardous Air Pollutant

MTBE = Methyl tert butyl ether

Appendix A.1: Unlimited Emissions Calculations Material Storage Piles

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

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

$$E_f = 1.7 * (s/1.5) * (365-p) / 235 * (f/15)$$

where E_f = emission factor (lb/acre/day)
 s = silt content (wt %)
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % 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/PM2.5 (tons/yr)
Sand - natural	2.6	3.01	0.25	0.137	0.048
Sand - mfg	2.6	3.01	0.10	0.055	0.019
Limestone	1.6	1.85	2.75	0.929	0.325
RAP	1.0	1.16	0.10	0.021	0.007
Shingles	2.0	2.31	0.10	0.042	0.015
Totals				1.19	0.41

Methodology

PM2.5 = PM10

PTE of PM (tons/yr) = (Emission Factor (lb/acre/day)) * (Maximum Pile Size (acres)) * (ton/2000 lbs) * (8760

PTE of PM10/PM2.5 (tons/yr) = (Potential PM Emissions (tons/yr)) * 35%

*Silt content values obtained from AP-42 Table 13.2.4-1 (dated 1/95)

**Maximum anticipated pile size (tons) provided by the source. The pile sizes in tons were converted to acres as follows:

Using the material weight, material bulk density and pile height;

$$M = \text{Mass (lbs)} = W * 2000 \text{ lbs/ton}$$

$$1 \text{ Ton} = 2000 \text{ Pounds (lbs)}$$

$$F = \pi r^2$$

$$1 \text{ Acre} = 4,840 \text{ yd}^2 = 43,560 \text{ ft}^2$$

$$V = \text{Volume of the material stored in the pile (ft}^3) = M / \text{Bd}$$

$$V_C = \text{Volume of a Cone} = 1/3 \pi r^2 h = 1/3 Fh$$

Since a piles of material are generally cone shaped we will assume that $V_C = V$

Therefore, $V = 1/3 Fh$

And... $F = 3V / h$

$$A_T = F / 43,560$$

Abbreviations

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

PTE = Potential to Emit

RAP - recycled asphalt pavement

Appendix A.1: Unlimited Emissions Calculations Material Processing, Handling, Crushing, Screening, and Conveying

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

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, 1/95) are utilized.

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

where: E_f = Emission factor (lb/ton)

k (PM) =	0.74	= particle size multiplier (0.74 assumed for aerodynamic diameter ≤ 100 μm)
k (PM10) =	0.35	= particle size multiplier (0.35 assumed for aerodynamic diameter ≤ 10 μm)
k (PM2.5) =	0.053	= particle size multiplier (0.053 assumed for aerodynamic diameter ≤ 2.5 μm)
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 = 2,277,600 tons/yr
 Percent Asphalt Cement/Binder (weight %) = 5.0%
 Maximum Material Handling Throughput = 2,163,720 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	2.45	1.16	0.18
Front-end loader dumping of materials into feeder bins	2.45	1.16	0.18
Conveyor dropping material into dryer/mixer or batch tower	2.45	1.16	0.18
Total (tons/yr)	7.36	3.48	0.53

Methodology

The percent asphalt cement/binder provided by the source.

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

Unlimited 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 (Indianapolis, 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/PM2.5 (tons/yr)**
Crushing	0.0054	0.0024	5.84	2.60
Screening	0.025	0.0087	27.05	9.41
Conveying	0.003	0.0011	3.25	1.19
Unlimited Potential to Emit (tons/yr) =			36.13	13.20

Methodology

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

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

Raw materials may include stone/gravel, slag, and recycled asphalt pavement (RAP)

Emission Factors from AP-42 Chapter 11.19.2 (dated 8/04), Table 11.19.2-2

*Uncontrolled emissions factors for PM/PM10 represent tertiary crushing of stone with moisture content ranging from 0.21 to 1.3 percent by weight (Table 11.19.2-2).

The bulk moisture content of aggregate in the storage piles at a hot mix asphalt production plant typically stabilizes between 3 to 5 percent by weight (Source: AP-42 Section 11.1.1.1).

**Assumes PM10 = PM2.5

Abbreviations

PM = Particulate Matter

PM2.5 = Particulate matter (< 2.5 μm)

PM10 = Particulate Matter (<10 μm)

PTE = Potential to Emit

**Appendix A.1: Unlimited Emissions Calculations
Unpaved Roads**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

Unpaved Roads at Industrial Site

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Maximum Annual Asphalt Production = 2,277,600 tons/yr
 Percent Asphalt Cement/Binder (weight %) = 5.0%
 Maximum Material Handling Throughput = 2,163,720 tons/yr
 Maximum Asphalt Cement/Binder Throughput = 113,880 tons/yr
 Maximum No. 2 Fuel Oil Usage = 9,385,714 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 year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.4	9.7E+04	3.8E+06	300	0.057	5,488.3
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.0	9.7E+04	1.6E+06	300	0.057	5,488.3
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	3.2E+03	1.5E+05	300	0.057	179.7
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	3.2E+03	3.8E+04	300	0.057	179.7
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.0	9.9E+02	4.4E+04	300	0.057	56.3
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	9.9E+02	1.2E+04	300	0.057	56.3
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.2	5.2E+05	9.9E+06	300	0.057	29,271.1
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	5.2E+05	7.7E+06	300	0.057	29,271.1
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.0	9.5E+04	3.9E+06	300	0.057	5,392.0
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.0	9.5E+04	1.6E+06	300	0.057	5,392.0
Total					1.4E+06	2.9E+07			8.1E+04

Average Vehicle Weight Per Trip = 20.3 tons/trip
 Average Miles Per Trip = 0.057 miles/trip

Unmitigated Emission Factor, $E_f = k \cdot [(s/12)^a] \cdot [(W/3)^b]$ (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant Road)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2)
W =	20.3	20.3	20.3	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E_f \cdot [(365 - P)/365]$

Mitigated Emission Factor, $E_{ext} = E_f \cdot [(365 - P)/365]$
 where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, E_f =	6.10	1.55	0.16	lb/mile
Mitigated Emission Factor, E_{ext} =	4.01	1.02	0.10	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)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	16.73	4.26	0.43	11.00	2.80	0.28	5.50	1.40	0.14
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	16.73	4.26	0.43	11.00	2.80	0.28	5.50	1.40	0.14
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.548	0.140	0.01	0.360	0.092	0.01	0.180	0.046	0.00
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.548	0.140	0.01	0.360	0.092	0.01	0.180	0.046	0.00
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.172	0.044	0.00	0.113	0.029	0.00	0.056	0.014	0.00
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.172	0.044	0.00	0.113	0.029	0.00	0.056	0.014	0.00
Aggregate/RAP Loader Full	Front-end loader (3 CY)	89.21	22.74	2.27	58.66	14.95	1.50	29.33	7.48	0.75
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	89.21	22.74	2.27	58.66	14.95	1.50	29.33	7.48	0.75
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	16.43	4.19	0.42	10.81	2.75	0.28	5.40	1.38	0.14
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	16.43	4.19	0.42	10.81	2.75	0.28	5.40	1.38	0.14
Totals		246.19	62.74	6.27	161.88	41.26	4.13	80.94	20.63	2.06

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)
 PM2.5 = PM10

Abbreviations

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

**Appendix A.1: Unlimited Emissions Calculations
Paved Roads**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

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 (12/2003).

Maximum Annual Asphalt Production = 2,277,600 tons/yr
 Percent Asphalt Cement/Binder (weight %) = 5.0%
 Maximum Material Handling Throughput = 2,163,720 tons/yr
 Maximum Asphalt Cement/Binder Throughput = 113,880 tons/yr
 Maximum No. 2 Fuel Oil Usage = 9,385,714 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)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.4	9.7E+04	3.8E+06	300	0.057	5,488.3
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.0	9.7E+04	1.6E+06	300	0.057	5,488.3
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	3.2E+03	1.5E+05	300	0.057	179.7
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	3.2E+03	3.8E+04	300	0.057	179.7
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.0	9.9E+02	4.4E+04	300	0.057	56.3
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	9.9E+02	1.2E+04	300	0.057	56.3
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.2	5.2E+05	9.9E+06	300	0.057	29,271.1
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	5.2E+05	7.7E+06	300	0.057	29,271.1
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.0	9.5E+04	3.9E+06	300	0.057	5,392.0
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.0	9.5E+04	1.6E+06	300	0.057	5,392.0
Total					1.4E+06	2.9E+07			8.1E+04

Average Vehicle Weight Per Trip = 20.3 tons/trip
 Average Miles Per Trip = 0.057 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 =	20.3	20.3	20.3	tons = average vehicle weight (provided by source)
C =	0.00047	0.00047	0.00036	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, $E_{ext} = E * [1 - (p/4N)]$

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 =	0.66	0.13	0.02	lb/mile
Mitigated Emission Factor, E_{ext} =	0.60	0.12	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)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	1.81	0.35	0.05	1.65	0.32	0.05	0.83	0.16	0.02
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	1.81	0.35	0.05	1.65	0.32	0.05	0.83	0.16	0.02
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.059	0.012	1.7E-03	0.054	0.011	1.6E-03	0.027	5.3E-03	7.8E-04
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.059	0.012	1.7E-03	0.054	0.011	1.6E-03	0.027	5.3E-03	7.8E-04
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	1.9E-02	3.6E-03	5.3E-04	1.7E-02	3.3E-03	4.9E-04	8.5E-03	1.6E-03	2.4E-04
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	1.9E-02	3.6E-03	5.3E-04	1.7E-02	3.3E-03	4.9E-04	8.5E-03	1.6E-03	2.4E-04
Aggregate/RAP Loader Full	Front-end loader (3 CY)	9.63	1.87	0.28	8.81	1.71	0.25	4.40	0.86	0.13
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	9.63	1.87	0.28	8.81	1.71	0.25	4.40	0.86	0.13
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	1.77	0.35	0.05	1.62	0.32	0.05	0.81	0.16	0.02
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	1.77	0.35	0.05	1.62	0.32	0.05	0.81	0.16	0.02
Totals		26.57	5.17	0.76	24.30	4.73	0.70	12.15	2.36	0.35

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)
 PM2.5 = PM10

Abbreviations

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

Appendix A.1: Unlimited Emissions Calculations Cold Mix Asphalt Production and Stockpiles

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

The following calculations determine the amount of VOC and HAP emissions created from volatilization of solvent used as diluent in the liquid binder for cold mix asphalt production

Maximum Annual Asphalt Production =	2,277,600	tons/yr
Percent Asphalt Cement/Binder (weight %) =	0%	
Maximum Asphalt Cement/Binder Throughput =	0	tons/yr

Volatile Organic Compounds

	Maximum weight % of VOC solvent in binder*	Weight % VOC solvent in binder that evaporates	Maximum VOC Solvent Usage (tons/yr)	PTE of VOC (tons/yr)
Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)	25.3%	95.0%	0	0
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	0	0
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	0	0
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	0	0
Other asphalt with solvent binder	25.9%	2.5%	0	0
Worst Case PTE of VOC =				0

Hazardous Air Pollutants

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0% Xylenes
PTE of Total HAPs (tons/yr) =	0
PTE of Single HAP (tons/yr) =	0 Xylenes

Hazardous Air Pollutant (HAP) Content (% by weight) For Various Petroleum Solvents*

Volatile Organic HAP	CAS#	Hazardous Air Pollutant (HAP) Content (% by weight)* For Various Petroleum Solvents				
		Gasoline	Kerosene	Diesel (#2) Fuel Oil	No. 2 Fuel Oil	No. 6 Fuel Oil
1,3-Butadiene	106-99-0	3.70E-5%				
2,2,4-Trimethylpentane	540-84-1	2.40%				
Acenaphthene	83-32-9		4.70E-5%		1.80E-4%	
Acenaphthylene	208-96-8		4.50E-5%		6.00E-5%	
Anthracene	120-12-7		1.20E-6%	5.80E-5%	2.80E-5%	5.00E-5%
Benzene	71-43-2	1.90%		2.90E-4%		
Benzo(a)anthracene	56-55-3			9.60E-7%	4.50E-7%	5.50E-4%
Benzo(a)pyrene	50-32-8			2.20E-6%	2.10E-7%	4.40E-5%
Benzo(g,h,i)perylene	191-24-2			1.20E-7%	5.70E-8%	
Biphenyl	92-52-4			6.30E-4%	7.20E-5%	
Chrysene	218-01-9			4.50E-7%	1.40E-6%	6.90E-4%
Ethylbenzene	100-41-4	1.70%		0.07%	3.40E-4%	
Fluoranthene	206-44-0		7.10E-6%	5.90E-5%	1.40E-5%	2.40E-4%
Fluorene	86-73-7		4.20E-5%	8.60E-4%	1.90E-4%	
Indeno(1,2,3-cd)pyrene	193-39-5			1.60E-7%		1.00E-4%
Methyl-tert-butylether	1634-04-4	0.33%				
Naphthalene	91-20-3	0.25%	0.31%	0.26%	0.22%	4.20E-5%
n-Hexane	110-54-3	2.40%				
Phenanthrene	85-01-8		8.60E-6%	8.80E-4%	7.90E-4%	2.10E-4%
Pyrene	129-00-0		2.40E-6%	4.60E-5%	2.90E-5%	2.30E-5%
Toluene	108-88-3	8.10%		0.18%	6.20E-4%	
Total Xylenes	1330-20-7	9.00%		0.50%	0.23%	
Total Organic HAPs		26.08%	0.33%	1.29%	0.68%	0.19%
Worst Single HAP		9.00%	0.31%	0.50%	0.23%	0.07%
		Xylenes	Naphthalene	Xylenes	Xylenes	Chrysene

Methodology

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

Maximum VOC Solvent Usage (tons/yr) = [Maximum Asphalt Cement/Binder Throughput (tons/yr)] * [Maximum Weight % of VOC Solvent in Binder]

PTE of VOC (tons/yr) = [Weight % VOC solvent in binder that evaporates] * [Maximum VOC Solvent Usage (tons/yr)]

PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]

PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at:

<http://www.aehs.com/publications/catalog/contents/tph.htm>

Abbreviations

VOC = Volatile Organic Compounds

PTE = Potential to Emit

Appendix A.1: Unlimited Emissions Calculations Gasoline Fuel Transfer and Dispensing Operation

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/29/2010

To calculate evaporative emissions from the gasoline dispensing fuel transfer and dispensing operation handling emission factors from AP-42 Table 5.2-7 were used. The total potential emission of VOC is as follows:

$$\begin{aligned} \text{Gasoline Throughput} &= 0 \text{ gallons/day} \\ &= 0 \text{ kgal/yr} \end{aligned}$$

Volatile Organic Compounds

Emission Source	Emission Factor (lb/kgal of throughput)	PTE of VOC (tons/yr)*
Filling storage tank (balanced submerged filling)	0.3	0
Tank breathing and emptying	1.0	0
Vehicle refueling (displaced losses - controlled)	1.1	0
Spillage	0.7	0
Total		0

Hazardous Air Pollutants

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%	
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0%	Xylenes
Limited PTE of Total HAPs (tons/yr) =	0	
Limited PTE of Single HAP (tons/yr) =	0	Xylenes

Methodology

The gasoline throughput was provided by the source.

Gasoline Throughput (kgal/yr) = [Gasoline Throughput (lbs/day)] * [365 days/yr] * [kgal/1000 gal]

PTE of VOC (tons/yr) = [Gasoline Throughput (kgal/yr)] * [Emission Factor (lb/kgal)] * [ton/2000 lb]

PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] * [PTE of VOC (tons/yr)]

PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] * [PTE of VOC (tons/yr)]

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehs.com/publications/catalog/contents/tph.htm>

Abbreviations

VOC = Volatile Organic Compounds

PTE = Potential to Emit

**Appendix A.2: Limited Emissions Summary
Entire Source**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

Asphalt Plant Limitations

Maximum Hourly Asphalt Production =	260	ton/hr								
Annual Asphalt Production Limitation =	600,000	ton/yr								
Slag Usage Limitation =	0	ton/yr	0	% sulfur						
Natural Gas Limitation =	0	MMCF/yr								
No. 2 Fuel Oil Limitation =	2,694,875	gal/yr, and	0.50	% sulfur						
No. 4 Fuel Oil Limitation =	0	gal/yr, and	0	% sulfur						
Residual (No. 4, No. 5 or No. 6) Fuel Oil Limitation =	2,437,403	gal/yr, and	0.50	% sulfur						
Propane Limitation =	0	gal/yr, and	0	gr/100 ft3 sulfur						
Butane Limitation =	0	gal/yr, and	0	gr/100 ft3 sulfur						
Used/Waste Oil Limitation =	0	gal/yr, and	0	% sulfur	0	% ash	0	% chlorine,	0	% lead
PM Dryer/Mixer Limitation =	0.715	lb/ton of asphalt production								
PM10 Dryer/Mixer Limitation =	0.294	lb/ton of asphalt production								
PM2.5 Dryer/Mixer Limitation =	0.313	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								
Slag SO2 Dryer/Mixer Limitation =	0	lb/ton of slag processed								
Cold Mix Asphalt VOC Usage Limitation =	0	tons/yr								
HCl Limitation =	0	lb/kgal								

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										
Dryer Fuel Combustion (worst case)	9.52	11.35	11.35	95.67	57.28	0.34	6.74	0.23	0.10	(nickel)
Dryer/Mixer (Process)	214.59	88.26	93.93	17.40	16.50	9.60	39.00	3.20	0.93	(formaldehyde)
Dryer/Mixer Slag Processing	0	0	0	0	0	0	0	0	0	
Hot Oil Heater Fuel Combustion (worst case)	0.09	0.15	0.15	3.33	0.94	0.01	0.23	3.34E-03	2.86E-03	(hexane)
Worst Case Emissions*	214.68	88.42	94.09	99.00	58.22	9.61	39.23	3.20	0.93	(formaldehyde)
Fugitive Emissions										
Asphalt Load-Out, Silo Filling, On-Site Yard	0.33	0.33	0.33	0	0	5.14	0.86	0.09	0.03	(formaldehyde)
Material Storage Piles	1.21	0.42	0.42	0	0	0	0	0	0	
Material Processing and Handling	1.94	0.92	0.14	0	0	0	0	0	0	
Material Crushing, Screening, and Conveying	9.52	3.48	3.48	0	0	0	0	0	0	
Unpaved and Paved Roads (worst case)	21.32	5.43	0.54	0	0	0	0	0	0	
Cold Mix Asphalt Production	0	0	0	0	0	0	0	0	0	
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0	0	0	0	
Volatile Organic Liquid Storage Vessels	0	0	0	0	0	negl	0	negl	negl	
Total Fugitive Emissions	34.32	10.58	4.91	0	0	5.14	0.86	0.09	0.03	(formaldehyde)
Totals Limited/Controlled Emissions	249.00	99.00	99.00	99.00	58.22	14.75	40.10	3.29	0.96	(formaldehyde)

negl = negligible

Worst Case Fuel Combustion is based on the fuel with the highest emissions for each specific pollutant.

*Worst Case Emissions (tons/yr) = Worst Case Emissions from Dryer Fuel Combustion and Dryer/Mixer + Dryer/Mixer Slag Processing + Worst Case Emissions from Hot Oil Heater Fuel Combustion
 Fuel component percentages provided by the source.

Appendix A.2: Limited Emissions Summary
Dryer/Mixer Fuel Combustion with Maximum Capacity > 100 MMBtu/hr

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

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

Maximum Hourly Asphalt Production =	260	ton/hr
Annual Asphalt Production Limitation =	600,000	ton/yr
Natural Gas Limitation =	0	MMCF/yr
No. 2 Fuel Oil Limitation =	2,694,875	gal/yr, and
No. 4 Fuel Oil Limitation =	0	gal/yr, and
Residual (No. 5 or No. 6) Fuel Oil Limitation =	2,437,403	gal/yr, and
Propane Limitation =	0	gal/yr, and
Butane Limitation =	0	gal/yr, and
Used/Waste Oil Limitation =	0	gal/yr, and

	0.50	% sulfur
	0	% sulfur
	0.50	% sulfur
	0	gr/100 ft3 sulfur
	0	gr/100 ft3 sulfur
	0	% sulfur
	0	% ash
	0	% chlorine
	0	% lead

Limited Emissions

Criteria Pollutant	Emission Factor (units)							Limited Potential to Emit (tons/yr)							
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil* (lb/kgal)	Residual (No. 4, No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/Waste Oil (tons/yr)	Worse Case Fuel (tons/yr)
PM	1.9	2	7	7.8	0.5	0.6	0	0	2.69	0	9.52	0	0	0	9.52
PM10	7.6	3.3	8.3	9.3	0.5	0.6	0	0	4.45	0	11.35	0	0	0	11.35
SO2	0.6	71.0	0	78.5	0	0	0	0	95.67	0	95.67	0	0	0	95.67
NOx	190	24.0	47.0	47.0	13.0	15.0	19.0	0	32.34	0	57.28	0	0	0	57.28
VOC	5.5	0.20	0.20	0.28	1.00	1.10	1.0	0	0.27	0	0.34	0	0	0	0.34
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	0	6.74	0	6.09	0	0	0	6.74
Hazardous Air Pollutant															
HCl							0								0
Antimony			5.25E-03	5.25E-03			negl			0	6.40E-03				negl
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03			1.1E-01	0	7.55E-04	0	1.61E-03				0
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05			negl	0	5.66E-04	0	3.39E-05				negl
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04			9.3E-03	0	5.66E-04	0	4.85E-04				0
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04			2.0E-02	0	5.66E-04	0	1.03E-03				0
Cobalt	8.4E-05		6.02E-03	6.02E-03			2.1E-04	0		0	7.34E-03				0
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03			0	0	1.70E-03	0	1.84E-03				0
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03			6.8E-02	0	1.13E-03	0	3.66E-03				0
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04				0	5.66E-04	0	1.38E-04				0
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02			1.1E-02	0	5.66E-04	0	0.103				0
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04			negl	0	2.83E-03	0	8.32E-04				negl
1,1,1-Trichloroethane			2.36E-04	2.36E-04						0	2.88E-04				0
1,3-Butadiene															0
Acetaldehyde															0
Acrolein															0
Benzene	2.1E-03		2.14E-04	2.14E-04				0		0	2.61E-04				0
Bis(2-ethylhexyl)phthalate							2.2E-03								0
Dichlorobenzene	1.2E-03						8.0E-07	0							0
Ethylbenzene			6.36E-05	6.36E-05						0	7.75E-05				0
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				0	0.082	0	0.040				0.08
Hexane	1.8E+00							0							0
Phenol							2.4E-03								0
Toluene	3.4E-03		6.20E-03	6.20E-03				0		0	7.56E-03				0
Total PAH Haps	negl		1.13E-03	1.13E-03			3.9E-02	negl		0	1.38E-03				0
Polycyclic Organic Matter		3.30E-03							4.45E-03						0
Xylene			1.09E-04	1.09E-04						0	1.33E-04				0
Total HAPs								0	0.10	0	0.18	0	0	0	0.23

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 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11
 Propane and Butane: AP-42 Chapter 1.5 (dated 7/08), Tables 1.5-1 (assuming PM = PM10)
 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

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

*Since there are no specific AP-42 HAP emission factors for combustion of No. 4 fuel oil, it was assumed that HAP emissions from combustion of No. 4 fuel oil were equal to combustion of residual or No. 6 fuel oil.

Appendix A.2: Limited Emissions Summary Dryer/Mixer

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

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

Maximum Hourly Asphalt Production =	260	ton/hr
Annual Asphalt Production Limitation =	600,000	ton/yr
PM Dryer/Mixer Limitation =	0.715	lb/ton of asphalt production
PM10 Dryer/Mixer Limitation =	0.294	lb/ton of asphalt production
PM2.5 Dryer/Mixer Limitation =	0.313	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	Waste Oil	Natural Gas	No. 2 Fuel Oil	Waste Oil	
PM*	0.715	0.715	0.715	0	214.59	214.59	214.59
PM10*	0.294	0.294	0.294	0	88.26	88.26	88.26
PM2.5*	0.313	0.313	0.313	0	93.93	93.93	93.93
SO2**	0.003	0.011	0.058	0	3.30	17.40	17.40
NOx**	0.026	0.055	0.055	0	16.50	16.50	16.50
VOC**	0.032	0.032	0.032	0	9.60	9.60	9.60
CO***	0.130	0.130	0.130	0	39.00	39.00	39.00
Hazardous Air Pollutant							
HCl			2.10E-04			0.06	0.06
Antimony	1.80E-07	1.80E-07	1.80E-07	0	5.40E-05	5.40E-05	5.40E-05
Arsenic	5.60E-07	5.60E-07	5.60E-07	0	1.68E-04	1.68E-04	1.68E-04
Beryllium	negl	negl	negl	0	negl	negl	0
Cadmium	4.10E-07	4.10E-07	4.10E-07	0	1.23E-04	1.23E-04	1.23E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	0	1.65E-03	1.65E-03	1.65E-03
Cobalt	2.60E-08	2.60E-08	2.60E-08	0	7.80E-06	7.80E-06	7.80E-06
Lead	6.20E-07	1.50E-05	1.50E-05	0	4.50E-03	4.50E-03	4.50E-03
Manganese	7.70E-06	7.70E-06	7.70E-06	0	2.31E-03	2.31E-03	2.31E-03
Mercury	2.40E-07	2.60E-06	2.60E-06	0	7.80E-04	7.80E-04	7.80E-04
Nickel	6.30E-05	6.30E-05	6.30E-05	0	1.89E-02	1.89E-02	0.02
Selenium	3.50E-07	3.50E-07	3.50E-07	0	1.05E-04	1.05E-04	1.05E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	0	1.20E-02	1.20E-02	0.01
Acetaldehyde			1.30E-03			0.39	0.39
Acrolein			2.60E-05			7.80E-03	7.80E-03
Benzene	3.90E-04	3.90E-04	3.90E-04	0	0.12	0.12	0.12
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0	0.07	0.07	0.07
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	0	0.93	0.93	0.93
Hexane	9.20E-04	9.20E-04	9.20E-04	0	0.28	0.28	0.28
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0	0.01	0.01	0.01
MEK			2.00E-05			0.01	0.01
Propionaldehyde			1.30E-04			0.04	0.04
Quinone			1.60E-04			0.05	0.05
Toluene	1.50E-04	2.90E-03	2.90E-03	0	0.87	0.87	0.87
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0	0.26	0.26	0.26
Xylene	2.00E-04	2.00E-04	2.00E-04	0	0.06	0.06	0.06
Total HAPs						3.20	
Worst Single HAP						0.93	(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, 11.1-4, 11.1-7, 11.1-8, 11.1-10, and 11.1-12

Natural gas, No. 2 fuel oil, and waste oil represent the worst possible emissions scenario. AP-42 did not provide emission factors for any other fuels.

* PM, PM10, and PM2.5 AP-42 emission factors based on drum mix dryer fired with natural gas, propane, fuel oil, and waste oil. According to AP-42 fuel type does not significantly effect PM, PM10, and PM2.5 emissions.

** SO2, NOx, and VOC AP-42 emission factors are for natural gas, No. 2 fuel oil, and waste oil only.

*** CO AP-42 emission factor determined by combining data from drum mix dryer fired with natural gas, No. 6 fuel oil, and No. 2 fuel oil to develop single CO emission factor.

Abbreviations

VOC - Volatile Organic Compounds
 SO2 = Sulfur Dioxide

HCl = Hydrogen Chloride
 HAP = Hazardous Air Pollutant

PAH = Polyaromatic Hydrocarbon

**Appendix A.2: Limited Emissions Summary
Dryer/Mixer Slag Processing**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

The following calculations determine the limited emissions from the processing of slag in the aggregate drying/mixing

Slag Usage Limitation = ton/yr
 SO2 Slag Limitation = lb/ton of slag processed % sulfur

	Emission Factor or Limitation (lb/ton)*	Limited Potential to Emit (tons/yr)
Criteria Pollutant	Slag Processing	Slag Processing
SO2	0	0

Methodology

Testing results for slag, obtained January 9, 2009 from similar operations at Rich Riley Construction Co., Inc. facility located in Valparaiso, IN (permit #127-27075-05241), produced an Emission Factor of 0.54 lb/ton from slag containing 1.10% sulfur content. The source has requested a safety factor of 0.20 lb/ton be added to the tested value for use at this location to allow for a sulfur content up to 1.5%.

Limited Potential to Emit SO2 from Slag (tons/yr) = (Slag Usage Limitation (ton/yr)) * [Limited Emission Factor (lb/ton)] * [ton/2000 lbs]

Abbreviations

SO2 = Sulfur Dioxide

Appendix A.2: Limited Emissions Summary
Hot Oil Heater
Fuel Combustion with Maximum Capacity < 100 MMBtu/hr

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

Note: Since the emissions from the natural gas fired hot oil eating system are minimal, the limited emissions are equal to the unlimited emissions.

Maximum Hot Oil Heater Fuel Input Rate = 1.50 MMBtu/hr
Natural Gas Usage = 0 MMCF/yr
No. 2 Fuel Oil Usage = 93,857 gal/yr, and 0.50 % sulfur

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		Worse Case Fuel (tons/yr)
	Hot Oil Heater		Hot Oil Heater		
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	
PM	1.9	2.0	0	0.094	0.09
PM10/PM2.5	7.6	3.3	0	0.155	0.15
SO2	0.6	71.0	0	3.332	3.33
NOx	100	20.0	0	0.939	0.94
VOC	5.5	0.20	0	0.009	0.01
CO	84	5.0	0	0.235	0.23
Hazardous Air Pollutant					
Arsenic	2.0E-04	5.6E-04	0	2.63E-05	2.6E-05
Beryllium	1.2E-05	4.2E-04	0	1.97E-05	2.0E-05
Cadmium	1.1E-03	4.2E-04	0	1.97E-05	2.0E-05
Chromium	1.4E-03	4.2E-04	0	1.97E-05	2.0E-05
Cobalt	8.4E-05		0		0
Lead	5.0E-04	1.3E-03	0	5.91E-05	5.9E-05
Manganese	3.8E-04	8.4E-04	0	3.94E-05	3.9E-05
Mercury	2.6E-04	4.2E-04	0	1.97E-05	2.0E-05
Nickel	2.1E-03	4.2E-04	0	1.97E-05	2.0E-05
Selenium	2.4E-05	2.1E-03	0	9.86E-05	9.9E-05
Benzene	2.1E-03		0		0
Dichlorobenzene	1.2E-03		0		0
Ethylbenzene					0
Formaldehyde	7.5E-02	6.10E-02	0	2.86E-03	0.003
Hexane	1.8E+00		0		0
Phenol					0
Toluene	3.4E-03		0		0
Total PAH Haps	negl		negl		0
Polycyclic Organic Matter		3.30E-03		1.55E-04	1.5E-04
Total HAPs =			0	3.3E-03	0.003

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 lbs]

All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (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 Fuel Oil: AP-42 Chapter 1.3 (dated 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-1

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

Appendix A.2: Limited Emissions Summary Asphalt Load-Out, Silo Filling, and Yard Emissions

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

The following calculations determine the limited 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 =	325	F
Asphalt Volatility Factor, V =	-0.5	
Annual Asphalt Production Limitation =	600,000	tons/yr

Pollutant	Emission Factor (lb/ton asphalt)			Limited Potential to Emit (tons/yr)			
	Load-Out	Silo Filling	On-Site Yard	Load-Out	Silo Filling	On-Site Yard	Total
Total PM*	5.2E-04	5.9E-04	NA	0.16	0.18	NA	0.33
Organic PM	3.4E-04	2.5E-04	NA	0.10	0.076	NA	0.18
TOC	0.004	0.012	0.001	1.25	3.66	0.330	5.2
CO	0.001	0.001	3.5E-04	0.40	0.354	0.106	0.86

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

PM/HAPs	0.007	0.009	0	0.016
VOC/HAPs	0.018	0.046	0.005	0.070
non-VOC/HAPs	9.6E-05	9.9E-06	2.5E-05	1.3E-04
non-VOC/non-HAPs	0.09	0.05	0.02	0.17

Total VOCs	1.17	3.66	0.3	5.1
Total HAPs	0.03	0.06	0.005	0.09
Worst Single HAP				0.027 (formaldehyde)

Methodology

The asphalt temperature and volatility factor were provided by the source.

Limited 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 11.1-14, 11.1-15, and 11.1-16

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

*No emission factors available for PM10 or PM2.5, therefore IDEM assumes PM10 and PM2.5 are equivalent to Total PM.

Abbreviations

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

CO = Carbon Monoxide

HAP = Hazardous Air Pollutant

TOC = Total Organic Compounds

VOC = Volatile Organic Compound

**Appendix A.2: Limited Emissions Summary
Asphalt Load-Out, Silo Filling, and Yard Emissions (continued)**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

Organic Particulate-Based Compounds (Table 11.1-15)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Limited 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%	2.7E-04	3.6E-04	NA	6.2E-04
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	0.014%	2.9E-05	1.1E-05	NA	3.9E-05
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	0.13%	7.2E-05	9.9E-05	NA	1.7E-04
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	0.056%	1.9E-05	4.3E-05	NA	6.2E-05
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	0	7.8E-06	0	NA	7.8E-06
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	0	2.3E-06	0	NA	2.3E-06
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	0	1.9E-06	0	NA	1.9E-06
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	0	2.4E-06	0	NA	2.4E-06
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	0.0095%	8.0E-06	7.2E-06	NA	1.5E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	0.21%	1.1E-04	1.6E-04	NA	2.7E-04
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	0	3.8E-07	0	NA	3.8E-07
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	0.15%	5.1E-05	1.1E-04	NA	1.7E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.01%	7.9E-04	7.7E-04	NA	1.6E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	0	4.8E-07	0	NA	4.8E-07
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	5.27%	2.4E-03	4.0E-03	NA	0.006
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	1.82%	1.3E-03	1.4E-03	NA	2.7E-03
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	0.03%	2.3E-05	2.3E-05	NA	4.5E-05
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.80%	8.3E-04	1.4E-03	NA	2.2E-03
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	0.44%	1.5E-04	3.4E-04	NA	4.9E-04
Total PAH HAPs							0.006	0.009	NA	0.015
Other semi-volatile HAPs										
Phenol		PM/HAP	---	Organic PM	1.18%	0	1.2E-03	0	0	1.2E-03

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

Methodology

Limited 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

PM = Particulate Matter
 HAP = Hazardous Air Pollutant

POM = Polycyclic Organic Matter

**Appendix A.2: Limited Emissions Summary
Asphalt Load-Out, Silo Filling, and Yard Emissions (continued)**

Organic Volatile-Based Compounds (Table 11.1-16)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Limited 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%	1.17	3.66	0.31	5.14
non-VOC/non-HAPS										
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	0.26%	8.1E-02	9.5E-03	2.1E-02	0.112
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	0.055%	5.7E-04	2.0E-03	1.5E-04	0.003
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.10%	8.9E-03	4.0E-02	2.3E-03	0.051
Total non-VOC/non-HAPS					7.30%	1.40%	0.091	0.051	0.024	0.17
Volatile organic HAPs										
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	0.032%	6.5E-04	1.2E-03	1.7E-04	2.0E-03
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	0.0049%	1.2E-04	1.8E-04	3.2E-05	3.3E-04
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	0.039%	6.1E-04	1.4E-03	1.6E-04	2.2E-03
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	0.016%	1.6E-04	5.8E-04	4.3E-05	7.9E-04
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	0.004%	2.6E-06	1.5E-04	6.9E-07	1.5E-04
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	0.023%	1.9E-04	8.4E-04	5.0E-05	1.1E-03
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	0	1.4E-03	0	3.6E-04	1.7E-03
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	0.038%	3.5E-03	1.4E-03	9.2E-04	0.006
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	0.69%	1.1E-03	2.5E-02	2.9E-04	0.027
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	0.10%	1.9E-03	3.7E-03	5.0E-04	0.006
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	0.00031%	2.2E-05	1.1E-05	5.9E-06	4.0E-05
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0.00027%	0	9.9E-06	0	9.9E-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%	9.1E-05	2.0E-04	2.4E-05	3.1E-04
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	0	9.6E-05	0	2.5E-05	1.2E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	0.062%	2.6E-03	2.3E-03	6.9E-04	0.006
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	1.6E-05	0	4.3E-06	2.1E-05
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	0.20%	5.1E-03	7.3E-03	1.4E-03	0.014
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	0.057%	1.0E-03	2.1E-03	2.6E-04	3.3E-03
Total volatile organic HAPs					1.50%	1.30%	0.019	0.048	0.005	0.071

Methodology

Limited 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.2: Limited Emissions Summary Material Storage Piles

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

Note: Since the emissions from the storage piles are minimal, the limited emissions are equal to the unlimited emissions.

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

$$E_f = 1.7 * (s/1.5) * (365-p) / 235 * (f/15)$$

where E_f = emission factor (lb/acre/day)
 s = silt content (wt %)
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % 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/PM2.5 (tons/yr)
Sand - natural	2.6	3.01	0.25	0.137	0.048
Sand - mfg	2.6	3.01	0.10	0.055	0.019
Limestone	1.6	1.85	2.75	0.929	0.325
RAP	1.0	1.16	0.20	0.042	0.015
Shingles	2.0	2.31	0.10	0.042	0.015
Totals				1.21	0.42

Methodology

PM2.5 = PM10

PTE of PM (tons/yr) = (Emission Factor (lb/acre/day)) * (Maximum Pile Size (acres)) * (ton/2000 lbs) * (8760

PTE of PM10/PM2.5 (tons/yr) = (Potential PM Emissions (tons/yr)) * 35%

*Silt content values obtained from AP-42 Table 13.2.4-1 (dated 1/95)

**Maximum anticipated pile size (tons) provided by the source. The pile sizes in tons were converted to acres as follows:

Using the material weight, material bulk density and pile height;

$$M = \text{Mass (lbs)} = W * 2000 \text{ lbs/ton}$$

$$1 \text{ Ton} = 2000 \text{ Pounds (lbs)}$$

$$F = \pi r^2$$

$$1 \text{ Acre} = 4,840 \text{ yd}^2 = 43,560 \text{ ft}^2$$

$$V = \text{Volume of the material stored in the pile (ft}^3\text{)} = M / \text{Bd}$$

$$V_c = \text{Volume of a Cone} = 1/3 \pi r^2 h = 1/3 Fh$$

Since a pile of material is generally cone shaped we will assume that $V_c = V$

Therefore, $V = 1/3 Fh$

And... $F = 3V / h$

$$A_T = F / 43,560$$

Abbreviations

PM = Particulate Matter

h = Maximum pile height (ft)

PM10 = Particulate Matter (<10 um)

r = the radius of the base of the cone/pile (ft)

PM2.5 = Particulate Matter (<2.5 um)

F = Area of base of cone and also the footprint of the pile (ft²)

RAP - recycled asphalt pavement

A_T = Total Acres of footprint of the pile

Appendix A.2: Limited Emissions Summary Material Processing, Handling, Crushing, Screening, and Conveying

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

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, 1/95) are utilized.

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

where: E_f = Emission factor (lb/ton)

k (PM) =	0.74	= particle size multiplier (0.74 assumed for aerodynamic diameter \leq 100 μ m)
k (PM10) =	0.35	= particle size multiplier (0.35 assumed for aerodynamic diameter \leq 10 μ m)
k (PM2.5) =	0.053	= particle size multiplier (0.053 assumed for aerodynamic diameter \leq 2.5 μ m)
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

Annual Asphalt Production Limitation =	600,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	570,000	tons/yr

Type of Activity	Limited PTE of PM (tons/yr)	Limited PTE of PM10 (tons/yr)	Limited PTE of PM2.5 (tons/yr)
Truck unloading of materials into storage piles	0.65	0.31	0.05
Front-end loader dumping of materials into feeder bins	0.65	0.31	0.05
Conveyor dropping material into dryer/mixer or batch tower	0.65	0.31	0.05
Total (tons/yr)	1.94	0.92	0.14

Methodology

The percent asphalt cement/binder provided by the source.

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

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 (Indianapolis, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006

Material Screening and Conveying (AP-42 Section 19.2.2)

To estimate potential fugitive dust emissions from raw material crushing, screening, and conveying, AP-42 emission factors for Crushed Stone Processing Operations, Section 19.2.2 (dated 8/04) are utilized.

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Limited PTE of PM (tons/yr)	Limited PTE of PM10/PM2.5 (tons/yr)**
Crushing	0.0054	0.0024	1.54	0.68
Screening	0.025	0.0087	7.13	2.48
Conveying	0.003	0.0011	0.86	0.31
Limited Potential to Emit (tons/yr) =			9.52	3.48

Methodology

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

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

Raw materials may include stone/gravel, slag, and recycled asphalt pavement (RAP)

Emission Factors from AP-42 Chapter 11.19.2 (dated 8/04), Table 11.19.2-2

*Uncontrolled emissions factors for PM/PM10 represent tertiary crushing of stone with moisture content ranging from 0.21 to 1.3 percent by weight (Table 11.19.2-2). The bulk moisture content of aggregate in the storage piles at a hot mix asphalt production plant typically stabilizes between 3 to 5 percent by weight (Source: AP-42 Section 11.1.1.1).

**Assumes PM10 = PM2.5

Abbreviations

PM = Particulate Matter

PM2.5 = Particulate Matter (<2.5 μ m)

PM10 = Particulate Matter (<10 μ m)

PTE = Potential to Emit

**Appendix A.2: Limited Emissions Summary
Fugitive Emissions from Unpaved Roads**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

Unpaved Roads at Industrial Site

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Annual Asphalt Production Limitation =	600,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	570,000	tons/yr
Maximum Asphalt Cement/Binder Throughput =	30,000	tons/yr
No. 2 Fuel Oil Limitation =	2,694,875	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 year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.4	2.5E+04	1.0E+06	300	0.057	1445.8
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.0	2.5E+04	4.3E+05	300	0.057	1445.8
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	8.3E+02	4.0E+04	300	0.057	47.3
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	8.3E+02	1.0E+04	300	0.057	47.3
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.0	2.8E+02	1.3E+04	300	0.057	16.2
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	2.8E+02	3.4E+03	300	0.057	16.2
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.2	1.4E+05	2.6E+06	300	0.057	7711.0
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	1.4E+05	2.0E+06	300	0.057	7711.0
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.0	2.5E+04	1.0E+06	300	0.057	1420.5
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.0	2.5E+04	4.3E+05	300	0.057	1420.5
Total					3.7E+05	7.6E+06			2.1E+04

Average Vehicle Weight Per Trip =	20.3	tons/trip
Average Miles Per Trip =	0.057	miles/trip

Unmitigated Emission Factor, Ef = $k \cdot [(s/12)^a] \cdot [(W/3)^b]$ (Equation 1a from AP-42 13.2.2)

where k =	PM	PM10	PM2.5	lb/mi	= particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.9	1.5	0.15	%	= mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant Road)
a =	4.8	4.8	4.8	=	constant (AP-42 Table 13.2.2-2)
W =	0.7	0.9	0.9	tons	= average vehicle weight (provided by source)
b =	20.3	20.3	20.3	=	constant (AP-42 Table 13.2.2-2)
	0.45	0.45	0.45		

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = $E \cdot [(365 - P)/365]$

Mitigated Emission Factor, Eext =	$E \cdot [(365 - P)/365]$
where P =	125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

Unmitigated Emission Factor, Ef =	PM	PM10	PM2.5	lb/mile
Mitigated Emission Factor, Eext =	6.10	1.55	0.16	lb/mile
Dust Control Efficiency =	4.01	1.02	0.10	(pursuant to control measures outlined in fugitive dust control plan)
	50%	50%	50%	

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)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	4.41	1.12	0.11	2.90	0.74	0.07	1.45	0.37	0.04
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	4.41	1.12	0.11	2.90	0.74	0.07	1.45	0.37	0.04
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.144	0.037	0.00	0.095	0.024	2.4E-03	0.047	0.012	1.2E-03
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.144	0.037	0.00	0.095	0.024	2.4E-03	0.047	0.012	1.2E-03
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.049	0.013	1.3E-03	0.032	0.008	8.3E-04	0.016	0.004	4.1E-04
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.049	0.013	1.3E-03	0.032	0.008	8.3E-04	0.016	0.004	4.1E-04
Aggregate/RAP Loader Full	Front-end loader (3 CY)	23.50	5.99	0.60	15.45	3.94	0.39	7.73	1.97	0.20
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	23.50	5.99	0.60	15.45	3.94	0.39	7.73	1.97	0.20
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	4.33	1.10	0.11	2.85	0.73	0.07	1.42	0.36	0.04
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	4.33	1.10	0.11	2.85	0.73	0.07	1.42	0.36	0.04
Totals		64.86	16.53	1.65	42.65	10.87	1.09	21.32	5.43	0.54

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)
 PM2.5 = PM10

Abbreviations

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

Appendix A.2: Limited Emissions Summary
Fugitive Emissions from Paved Roads

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

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 (12/2003).

Annual Asphalt Production Limitation = 600,000 tons/yr
 Percent Asphalt Cement/Binder (weight %) = 5.0%
 Maximum Material Handling Throughput = 570,000 tons/yr
 Maximum Asphalt Cement/Binder Throughput = 30,000 tons/yr
 No. 2 Fuel Oil Limitation = 2,694,875 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)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.40	2.5E+04	1.0E+06	300	0.057	1445.8
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.00	2.5E+04	4.3E+05	300	0.057	1445.8
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.00	8.3E+02	4.0E+04	300	0.057	47.3
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	8.3E+02	1.0E+04	300	0.057	47.3
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.00	2.8E+02	1.3E+04	300	0.057	16.2
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	2.8E+02	3.4E+03	300	0.057	16.2
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.20	1.4E+05	2.6E+06	300	0.057	7711.0
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.00	1.4E+05	2.0E+06	300	0.057	7711.0
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.00	2.5E+04	1.0E+06	300	0.057	1420.5
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.00	2.5E+04	4.3E+05	300	0.057	1420.5
Total					3.7E+05	7.6E+06			2.1E+04

Average Vehicle Weight Per Trip = 20.3 tons/trip
 Average Miles Per Trip = 0.057 miles/trip

Unmitigated Emission Factor, Ef = [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 =	20.3	20.3	20.3	tons = average vehicle weight (provided by source)
C =	0.00047	0.00047	0.00036	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, Eext = E * [1 - (p/4N)]

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.66	0.13	0.02	lb/mile
Mitigated Emission Factor, Eext =	0.60	0.12	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)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	0.48	0.09	0.01	0.43	0.08	0.01	0.22	0.04	0.01
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	0.48	0.09	0.01	0.43	0.08	0.01	0.22	0.04	0.01
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.016	0.003	4.5E-04	0.014	0.003	4.1E-04	0.007	1.4E-03	2.0E-04
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.016	0.003	4.5E-04	0.014	0.003	4.1E-04	0.007	1.4E-03	2.0E-04
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	5.3E-03	1.0E-03	1.5E-04	4.9E-03	9.5E-04	1.4E-04	2.4E-03	4.7E-04	7.0E-05
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	5.3E-03	1.0E-03	1.5E-04	4.9E-03	9.5E-04	1.4E-04	2.4E-03	4.7E-04	7.0E-05
Aggregate/RAP Loader Full	Front-end loader (3 CY)	2.54	0.49	0.07	2.32	0.45	0.07	1.16	0.23	0.03
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	2.54	0.49	0.07	2.32	0.45	0.07	1.16	0.23	0.03
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	0.47	0.09	0.01	0.43	0.08	0.01	0.21	0.04	0.01
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	0.47	0.09	0.01	0.43	0.08	0.01	0.21	0.04	0.01
Totals		7.00	1.36	0.20	6.40	1.25	0.18	3.20	0.62	0.09

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)
 PM2.5 = PM10

Abbreviations

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

Appendix A.2: Limited Emissions Summary Cold Mix Asphalt Production and Stockpiles

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

The following calculations determine the amount of VOC and HAP emissions created from volatilization of solvent used as diluent in the liquid binder for cold mix asphalt production

Cold Mix Asphalt VOC Usage Limitation = tons/yr

Volatile Organic Compounds

	Maximum weight % of VOC solvent in binder	Weight % VOC solvent in binder that evaporates	VOC Solvent Usage Limitation (tons/yr)	Limited PTE of VOC (tons/yr)	Liquid Binder Adjustment Ratio
Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)	25.3%	95.0%	0	0	0
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	0	0	0
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	0	0	0
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	0	0	0
Other asphalt with solvent binder	25.9%	2.5%	0	0	0
Worst Case Limited PTE of VOC =				0	

Hazardous Air Pollutants

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0% Xylenes
Limited PTE of Total HAPs (tons/yr) =	0
Limited PTE of Single HAP (tons/yr) =	0 Xylenes

Hazardous Air Pollutant (HAP) Content (% by weight) For Various Petroleum Solvents*

	CAS#	Hazardous Air Pollutant (HAP) Content (% by weight)* For Various Petroleum Solvents				
		Gasoline	Kerosene	Diesel (#2) Fuel Oil	No. 2 Fuel Oil	No. 6 Fuel Oil
Volatile Organic HAP						
1,3-Butadiene	106-99-0	3.70E-5%				
2,2,4-Trimethylpentane	540-84-1	2.40%				
Acenaphthene	83-32-9		4.70E-5%		1.80E-4%	
Acenaphthylene	208-96-8		4.50E-5%		6.00E-5%	
Anthracene	120-12-7		1.20E-6%	5.80E-5%	2.80E-5%	5.00E-5%
Benzene	71-43-2	1.90%		2.90E-4%		
Benzo(a)anthracene	56-55-3			9.60E-7%	4.50E-7%	5.50E-4%
Benzo(a)pyrene	50-32-8			2.20E-6%	2.10E-7%	4.40E-5%
Benzo(g,h,i)perylene	191-24-2			1.20E-7%	5.70E-8%	
Biphenyl	92-52-4			6.30E-4%	7.20E-5%	
Chrysene	218-01-9			4.50E-7%	1.40E-6%	6.90E-4%
Ethylbenzene	100-41-4	1.70%		0.07%	3.40E-4%	
Fluoranthene	206-44-0		7.10E-6%	5.90E-5%	1.40E-5%	2.40E-4%
Fluorene	86-73-7		4.20E-5%	8.60E-4%	1.90E-4%	
Indeno(1,2,3-cd)pyrene	193-39-5			1.60E-7%		1.00E-4%
Methyl-tert-butylether	1634-04-4	0.33%				
Naphthalene	91-20-3	0.25%	0.31%	0.26%	0.22%	4.20E-5%
n-Hexane	110-54-3	2.40%				
Phenanthrene	85-01-8		8.60E-6%	8.80E-4%	7.90E-4%	2.10E-4%
Pyrene	129-00-0		2.40E-6%	4.60E-5%	2.90E-5%	2.30E-5%
Toluene	108-88-3	8.10%		0.18%	6.20E-4%	
Total Xylenes	1330-20-7	9.00%		0.50%	0.23%	
Total Organic HAPs		26.08%	0.33%	1.29%	0.68%	0.19%
Worst Single HAP		9.00%	0.31%	0.50%	0.23%	0.07%
		Xylenes	Naphthalene	Xylenes	Xylenes	Chrysene

Methodology

Limited PTE of VOC (tons/yr) = [Weight % VOC solvent in binder that evaporates] * [VOC Solvent Usage Limitation (tons/yr)]

Limited PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]

Limited PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehs.com/publications/catalog/contents/tp.htm>

Abbreviations

VOC = Volatile Organic Compounds

PTE = Potential to Emit

Appendix A.2: Limited Emissions Summary Gasoline Fuel Transfer and Dispensing Operation

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-29509-03321
Reviewer: Hannah L. Desrosiers
Date Received: July 29, 2010

Note: Since the emissions from the gasoline fuel transfer and dispensing operation are minimal, the limited emissions are equal to the unlimited emissions.

To calculate evaporative emissions from the gasoline dispensing fuel transfer and dispensing operation handling emission factors from AP-42 Table 5.2-7 were used. The total potential emission of VOC is as follows:

$$\begin{aligned} \text{Gasoline Throughput} &= 0 \text{ gallons/day} \\ &= 0 \text{ kgal/yr} \end{aligned}$$

Volatile Organic Compounds

Emission Source	Emission Factor (lb/kgal of throughput)	PTE of VOC (tons/yr)*
Filling storage tank (balanced submerged filling)	0.3	0
Tank breathing and emptying	1.0	0
Vehicle refueling (displaced losses - controlled)	1.1	0
Spillage	0.7	0
Total		0

Hazardous Air Pollutants

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%	
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0%	Xylenes
Limited PTE of Total HAPs (tons/yr) =	0	
Limited PTE of Single HAP (tons/yr) =	0	Xylenes

Methodology

The gasoline throughput was provided by the source.

Gasoline Throughput (kgal/yr) = [Gasoline Throughput (lbs/day)] * [365 days/yr] * [kgal/1000 gal]

PTE of VOC (tons/yr) = [Gasoline Throughput (kgal/yr)] * [Emission Factor (lb/kgal)] * [ton/2000 lb]

PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] * [PTE of VOC (tons/yr)]

PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] * [PTE of VOC (tons/yr)]

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehs.com/publications/catalog/contents/tph.htm>

Abbreviations

VOC = Volatile Organic Compounds

PTE = Potential to Emit



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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Gary Getz
Asphalt Supply Company, Inc
4700 Utica-Sellersburg Rd
Sellersburg, IN 47172

DATE: April 28, 2011

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

SUBJECT: Final Decision
FESOP
019-29509-03321

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07



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www.idem.IN.gov

TO: Sellersburg Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Asphalt Supply
Permit Number: 019-29509-03321

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

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2		Ms. Rhonda England 17213 Persimmon Run Rd Borden IN 47106-8604 (Affected Party)										
3		Ms. Betty Hislip 602 Dartmouth Drive, Apt 8 Clarksville IN 47129 (Affected Party)										
4		Mrs. Sandy Banet 514 Haddox Rd Henryville IN 47126 (Affected Party)										
5		Mr. Robert Bottom Paddlewheel Alliance P.O. Box 35531 Louisville KY 40232-5531 (Affected Party)										
6		Sellersburg Town Council 316 Utica Street Sellersburg IN 47172 (Local Official)										
7		Sellersburg Public Library 430 N Indiana Ave Sellersburg IN 47172 (Library)										
8		Clark County Board of Commissioners 501 E. Court Avenue Jeffersonville IN 47130 (Local Official)										
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