



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: June 5, 2012

RE: Asphalt Supply Co., Inc. / 019-31391-03321

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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June 5, 2012

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

Re: 019-31391-03321
First Significant Revision to
F019-29509-03321

Dear Gary Getz:

Asphalt Supply Co., Inc. was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F019-29509-03321 on April 28, 2011 for a stationary drum hot-mix asphalt plant located at 4700 Utica Sellersburg Road, Sellersburg, Indiana 47172. On January 20, 2012, the Office of Air Quality (OAQ) received an application from the source requesting to modify its burners to accept natural gas as a fuel, to make natural gas as the primary, but to retain other fuels as backup fuels. The attached Technical Support Document (TSD) provides additional explanation of the changes to the source/permit. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(f). Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Jack Harmon, of my staff, at 317-233-4228 or 1-800-451-6027, and ask for extension 3-4228.

Sincerely,

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Technical Support Document and revised permit

IC/jh

cc: File - Clark County
Clark County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section



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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.

FESOP Permit No.: F019-29509-03321, issued April 28, 2011	
Original Signed by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 28, 2011 Expiration Date: April 28, 2016
First Significant Revision No.: 019-31391-03321	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: June 5, 2012 Expiration Date: April 28, 2016

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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 (Asphalt Paving Mixtures and Blocks)
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, and approved for modification in 2012, with a maximum throughput capacity of two hundred sixty (260) tons of raw material per hour (reduced 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) dryer, identified as EU1C, using a natural gas as primary fuel and using No. 4 residual fuel and No. 2 distillate fuel oil as a backup fuels, 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)]

(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) and (c) 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.
- (4) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) 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.

Support information includes the following:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the FESOP.

Records of required monitoring information include the following:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

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. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. 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, and approved for modification in 2012, with a maximum throughput capacity of two hundred sixty (260) tons of raw material per hour (reduced 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) dryer, identified as EU1C, using natural gas as primary fuel, using No. 4 residual fuel and No. 2 distillate fuel oil as a backup fuels, 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 (0.711) 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 (0.293) pounds of PM10 per ton of asphalt produced.
- (c) PM2.5 emissions from the dryer/mixer shall not exceed three hundred thirteen thousandths (0.312) 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.
- (3) When used as a single fuel, natural gas usage shall not exceed 1,032.23 mmcf per twelve (12) consecutive month period, with compliance shown 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 ninety-eight and six hundredths (98.06) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (3) Greenhouse gas, as CO₂e, emissions from the dryer/mixer burner shall not exceed sixty-two thousand three hundred ninety-eight and eight hundredths (62,398.08) 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.

Compliance with these limits, combined with the limited potential to emit CO₂e from all other emission units at this source, shall limit the source-wide total potential to emit of CO₂e to less than one hundred thousand (100,000) 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:

$$S = \frac{[M(0.6) + F(0.071) + R(0.0785)]}{2,000 \text{ lbs/ton}}$$

Where:

S = tons of sulfur dioxide emissions for previous 12 consecutive month period;
M = MMCF of natural gas used in the dryer/mixer burner in previous 12 months;
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 Rates:

Natural Gas = 0.6 pounds SO₂ per MMCF of natural gas combusted;
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:

$$N = \frac{[M(190.0) + F(0.024) + R(0.047)]}{2000}$$

Where:

N = tons of nitrogen oxide emissions for previous 12 consecutive month period;
M = MMCF of natural gas used in the previous twelve (12) months;
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 Rates:

Natural Gas = 190.0 pounds NOx per MMCF of natural gas combusted;
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.

- (c) Carbon Dioxide Equivalent (CO₂e) emissions shall be determined using the following equations:

$$\text{CO}_2 = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$\text{CH}_4 = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$\text{N}_2\text{O} = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$\text{CO}_2\text{e} = \sum [(\text{CO}_2 \times \text{CO}_2 \text{ GWP}) + (\text{CH}_4 \times \text{CH}_4 \text{ GWP}) + (\text{N}_2\text{O} \times \text{N}_2\text{O} \text{ GWP})]$$

Where:

CO₂ = tons of CO₂ emissions for previous twelve (12) consecutive month period;
CH₄ = tons of CH₄ emissions for previous twelve (12) consecutive month period;
N₂O = tons of N₂O emissions for previous twelve (12) consecutive month period;
CO₂e = tons of CO₂e emissions for previous twelve (12) consecutive month period;
M = million cubic feet of natural gas used in previous twelve (12) months;
F = gallons of No. 2 fuel oil used in previous twelve (12) months;
R = gallons of No. 4 fuel oil used in previous twelve (12) months;

CO₂:

E_M = 120,161.84 pounds per million cubic feet of natural gas
E_F = 22,501.41 pounds per gallon of No. 2 fuel oil
E_R = 24.15346 pounds per gallon of No. 4 fuel oil

CH₄:

E_M = 2.49 pounds per million cubic feet of natural gas
E_F = 0.00091 pounds per gallon of No. 2 fuel oil
E_R = 0.00097 pounds per gallon of No. 4 fuel oil

N₂O:

E_M = 2.20 pounds per million cubic feet of natural gas
E_F = 0.00026 pounds per gallon of No. 2 fuel oil
E_R = 0.00019 pounds per gallon of No. 4 fuel oil

Global Warming Potentials (GWP):

Carbon Dioxide (CO₂) = 1
Methane (CH₄) = 21
Nitrous Oxide (N₂O) = 310

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, and approved for modification in 2012, with a maximum throughput capacity of two hundred sixty (260) tons of raw material per hour (reduced 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) dryer, identified as EU1C, using natural gas as primary fuel, using No. 4 residual fuel and No. 2 distillate fuel oil as a backup fuels, 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

- | |
|--|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <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 gallons
No. 4 Residual Fuel Oil ≤ 0.5 wt% sulfur (gallons)	2,437,403 gallons
Natural Gas (mmcf)	1032.23 mmcf

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 3

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:

$$S = \frac{[M(0.6) + F(E_F) + R(E_R)]}{2,000 \text{ lbs/ton}}$$

where:

S = tons of sulfur dioxide emissions for a 12-month consecutive period
M = MMCF of natural gas used in the dryer/mixer burner in previous 12 months;
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_M = 0.6 pounds SO₂ per MMCF of natural gas combusted
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 ninety-eight and six hundredths (98.06) 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:

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

where:

N = tons of nitrogen oxide emissions for a 12-month consecutive period
M = MMCF of natural gas used in the dryer/mixer burner in previous twelve (12) months
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_M = 190.0 lbs/mmcf of natural gas
E_F = 0.024 lbs/gallon of No. 2 distillate fuel oil
E_R = 0.047 lbs/gallon of No. 4 distillate fuel oil

Limit: Carbon Dioxide Equivalent (CO₂e) emissions shall be determined using the following equations:

$$CO_2 = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$CH_4 = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$N_2O = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$CO_2e = \sum [(CO_2 \times CO_2 \text{ GWP}) + (CH_4 \times CH_4 \text{ GWP}) + (N_2O \times N_2O \text{ GWP})]$$

Where:

CO₂ = tons of CO₂ emissions for previous twelve (12) consecutive month period;

CH₄ = tons of CH₄ emissions for previous twelve (12) consecutive month period;

N₂O = tons of N₂O emissions for previous twelve (12) consecutive month period;

CO₂e = tons of CO₂e emissions for previous twelve (12) consecutive month period;

M = million cubic feet of natural gas used in previous twelve (12) months;

F = gallons of No. 2 fuel oil used in previous twelve (12) months;

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

CO₂:

E_M = 120,161.84 pounds per million cubic feet of natural gas

E_F = 22,501.41 pounds per gallon of No. 2 fuel oil

E_R = 24.15346 pounds per gallon of No. 4 fuel oil

CH₄:

E_M = 2.49 pounds per million cubic feet of natural gas

E_F = 0.00091 pounds per gallon of No. 2 fuel oil

E_R = 0.00097 pounds per gallon of No. 4 fuel oil

N₂O:

E_M = 2.20 pounds per million cubic feet of natural gas

E_F = 0.00026 pounds per gallon of No. 2 fuel oil

E_R = 0.00019 pounds per gallon of No. 4 fuel oil

Global Warming Potentials (GWP):

Carbon Dioxide (CO₂) = 1

Methane (CH₄) = 21

Nitrous Oxide (N₂O) = 310

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)	GHG (CO2e) 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				
	Natural Gas usage (mmcf) [dryer/mixer burner]			M				
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				
	Natural Gas usage (mmcf) [dryer/mixer burner]			M				
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				
	Natural Gas usage (mmcf) [dryer/mixer burner]			M				

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: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B - Emergency Provisions satisfies the reporting requirements of this paragraph. 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 "No deviations occurred this reporting period".

NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

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

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

Technical Support Document (TSD) for a Significant Permit Revision to a
Federally Enforceable State Operating Permit (FESOP)

Source Description and Location

Source Name:	Asphalt Supply Company, Inc.
Source Location:	4700 Utica Sellersburg Road, Sellersburg, IN 47172
County:	Clark
SIC Code:	2951 (Asphalt Paving Mixtures and Blocks)
Operation Permit No.:	F019-29509-03321
Operation Permit Issuance Date:	April 28, 2011
Significant Permit Revision No.:	019-31391-03321
Permit Reviewer:	Jack Harmon

On January 20, 2012, the Office of Air Quality (OAQ) received an application from Asphalt Supply Company, Inc. related to a modification to an existing stationary drum hot-mix asphalt plant.

Source Definition

This company consists of the following plants:

- (a) Asphalt Supply Company is located at 4700 Utica Sellersburg Road, Sellersburg, Indiana, Plant ID: 019-03321; and
- (b) Hanson Aggregates Midwest, Inc. is located at 4700 Utica Sellersburg Road, Sellersburg, Indiana, Plant ID: 019-00021.

In order to consider both plants as one single source, all three of the following criteria must be met:

- (1) The plants must have common ownership/control;
- (2) The plants must have the same SIC code; and
- (3) The plants must be located on contiguous or adjacent properties.

These plants are located on the same property; however, the other criteria are not met. Therefore, based on this evaluation these plants will not be considered one (1) source, as defined by 326 IAC 2-7-1(22). This determination was initially made under FESOP No. 019-29509-03321, issued on April 28, 2011.

Existing Approvals

The source was issued FESOP Renewal No. 019-29509-03321 on April 28, 2011. There have been no approvals since that renewal.

County Attainment Status

The source is located in Clark County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.

Pollutant	Designation
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. Basic nonattainment designation effective federally April 5, 2005, for PM2.5.	

- (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) **PM_{2.5}**
 Clark County has been classified as nonattainment for PM_{2.5} in 70 FR 943 dated January 5, 2005. On May 8, 2008, U.S. EPA promulgated specific New Source Review rules for PM_{2.5} emissions. These rules became effective on July 15, 2008. Therefore, direct PM_{2.5} and SO₂ emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.
- (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 (40 CFR 60, Subpart I), therefore fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Status of the Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits:

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to the Proposed Revision (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 These emissions are based upon the emission calculations used in determining Emissions After Issuance of FESOP 019-29509-03321, issued April 28, 2011. * 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) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is not a major stationary source under Emission Offset (326 IAC 2-3), because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.
- (c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the unlimited potential to emit HAPs are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by Asphalt Supply on January 20, 2012, relating to a request for changes in its FESOP. The source has requested to incorporate the use of natural gas to its fuel options, to make natural gas as its primary fuel source, but retain the other current

fuel options as backup sources. In doing so, the source is requesting to modify its burners to accept natural gas. IDEM, OAQ will also review its greenhouse gas emissions.

The following is a list of the modified emission units and pollution control devices:

- (a) One (1) stationary drum hot-mix asphalt plant, identified as EU1, constructed in 1992, approved for modification in 2012, with a maximum throughput capacity of two hundred sixty (260) tons of raw material per hour (reduced 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), using natural gas as its primary fuel, using a natural gas fuel burner, identified as EU1C, using No. 4 residual fuel and No. 2 distillate fuel oil as backup fuels, 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.

There are no unpermitted emission units at the facility.

Enforcement Issues

There are no pending enforcement actions related to this revision.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – FESOP Revision
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The following table is used to determine the appropriate permit level under 326 IAC 2-8.11.1. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	PTE of Proposed Revision (tons/year)									
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e	Total HAPs	Worst Single HAP
Dryer Fuel Combustion for Natural Gas Addition	0.83	3.33	3.33	0.26	83.22	2.41	36.79	52,952.54	0.83	0.79 (Hexane)
Total PTE of Proposed Revision	0.83	3.33	3.33	0.26	83.22	2.41	36.79	52,952.54*	0.83	0.79 (Hexane)

This FESOP is being revised through a FESOP Significant Permit Revision pursuant to 326 IAC 2-8-11.1(f)(1)(E) and 326 IAC 2-8-11.1(g), because the revision involves the modification of the dryer/burner for the addition of natural gas as its primary fuel, with potential to emit (PTE) greater than 25 tons per year, and because existing limits must be adjusted to accommodate this change.

*This CO₂e is from the natural gas combustion only. The unlimited CO₂e PTE of the entire source is greater than 100,000 tons per year when using either No. 2 or No. 4 fuel. Thus, fuel limitation has to be specified to limit the entire source to less than 100,000 tons per year of CO₂e.

PTE of the Entire Source After Issuance of the FESOP Revision

The table below summarizes the potential to emit of the entire source, with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of the Proposed Revision (tons/year)									
	PM	*PM10	PM2.5	SO2	NOx	VOC	CO	GHG, as CO2e	Total HAPs	Worst Single HAP
Ducted Emissions										
Dryer Fuel Combustion (worst case) ⁽¹⁾	9.52	11.35	11.35	95.67	98.06 57.28	2.84 0.34	43.35 6.74	62,396.08	1.16E+00 0.23	9.3E-01 0.10 (nickel) (HCl)
Dryer/Mixer ⁽²⁾ (Process)	213.79 214.59	88.06 88.26	93.92 93.93	17.40	16.50	9.60	39.00	9,976.00	3.20E+00	9.30E-01 (formaldehyde)
Dryer/Mixer Slag Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hot Oil Heater Fuel Combustion (worst case)	0.09	0.15	0.15	3.33	0.94	0.01	0.23	1060.64	0.003 3.34E-03	0.003 2.86E-03 (hexane)
Total Process Emissions	213.88 214.68	88.22 88.42	94.07 94.09	99.00	99.00 58.22	9.61	43.59 39.23	63,456.72	3.20	9.30E-01 (formaldehyde, HCl)
Fugitive Emissions										
Asphalt Load-Out and On-Site Yard ⁽³⁾	0.33	0.33	0.33	0.00	0.00	5.14	0.86	0.00	8.59E-02	2.66E-02 (formaldehyde)
Material Storage Piles	1.19 1.21	0.41 0.42	0.41 0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Processing and Handling ⁽³⁾	1.94	0.92	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Screening, and Conveying ⁽³⁾	9.52	3.48	3.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unpaved and Paved Roads (worst case) ⁽¹⁾	22.14 21.32	5.64 5.43	0.56 0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cold Mix Asphalt Production	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gasoline Fuel Transfer and Dispensing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volatile Organic Liquid Storage Vessels **	0.00	0.00	0.00	0.00	0.00	negl	0.00	0.00	negl	negl
Total Fugitive Emissions	35.12 34.32	10.78 10.58	4.93 4.91	0.00	0.00	5.14	0.86	0.00	8.59E-02	2.66E-02 (formaldehyde)
Total Limited/ Controlled Emissions	249.00	99.00	99.00	99.00	99.00 58.22	14.75	44.45 40.10	63,456.72	3.29E+00	9.57E-01 (formaldehyde)
Title V Major Source Thresholds										
Title V Major Source Thresholds	N/A	100	100	100	100	100	100	100,000.0	25	10
PSD Major Source Thresholds										
PSD Major Source Thresholds	250	250	N/A	250	250	250	250	100,000.	N/A	N/A
Emission Offset/ Nonattainment NSR Major Source Thresholds										
Emission Offset/ Nonattainment NSR Major Source Thresholds	N/A	N/A	100	N/A	N/A	N/A	N/A	NA	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).

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of the Proposed Revision (tons/year)									
	PM	*PM10	PM2.5	SO2	NOx	VOC	CO	GHG, as CO2e	Total HAPs	Worst Single HAP
Ducted Emissions										
Dryer Fuel Combustion (worst case) ⁽¹⁾	9.52	11.35	11.35	95.67	98.06	2.84	43.35	62,396.08	1.16E+00	9.3E-01 (HCl)
Dryer/Mixer ⁽²⁾ (Process)	213.79	88.06	93.92	17.40	16.50	9.60	39.00	9,976.00	3.20E+00	9.30E-01 (formaldehyde)
Dryer/Mixer Slag Processing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hot Oil Heater Fuel Combustion (worst case)	0.09	0.15	0.15	3.33	0.94	0.01	0.23	1060.64	0.003	0.003 (hexane)
Total Process Emissions	213.88	88.22	94.07	99.00	99.00	9.61	43.59	63,456.72	3.20	9.30E-01 (formaldehyde, HCl)
Fugitive Emissions										
Asphalt Load-Out and On-Site Yard ⁽³⁾	0.33	0.33	0.33	0.00	0.00	5.14	0.86	0.00	8.59E-02	2.66E-02 (formaldehyde)
Material Storage Piles	1.19	0.41	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Processing and Handling ⁽³⁾	1.94	0.92	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Screening, and Conveying ⁽³⁾	9.52	3.48	3.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unpaved and Paved Roads (worst case) ⁽¹⁾	22.14	5.64	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cold Mix Asphalt Production	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gasoline Fuel Transfer and Dispensing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volatile Organic Liquid Storage Vessels **	0.00	0.00	0.00	0.00	0.00	negl	0.00	0.00	negl	negl
Total Fugitive Emissions	35.12	10.78	4.93	0.00	0.00	5.14	0.86	0.00	8.59E-02	2.66E-02 (formaldehyde)

Total Limited/ Controlled Emissions	249.00	99.00	99.00	99.00	99.00	14.75	44.45	63,456.72	3.29E+00	9.57E-01 (formaldehyde)
Title V Major Source Thresholds	N/A	100	100	100	100	100	100	100,000.0	25	10
PSD Major Source Thresholds	250	250	N/A	250	250	250	250	100,000.	N/A	N/A
Emission Offset/ Nonattainment NSR Major Source Thresholds	N/A	N/A	100	N/A	N/A	N/A	N/A	NA	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 revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be 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) Natural gas usage shall not exceed 1,032.23 mmcf per twelve (12) consecutive month period, with compliance determined at the end of each month.

This is a change from the existing permit because of the addition of natural gas to the list of permitted fuels. This is a Title I change.

- (2) NOx emission from the dryer combustion unit shall not exceed 0.00019 pound per cubic foot of natural gas combusted.

This is a change from the existing permit because the addition of natural gas to the list of permitted fuels. This is a Title I change.

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

(b) PSD Minor Source

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) When used as a single fuel, No. 2 fuel oil usage shall not exceed 2,694,875 gallons per twelve (12) consecutive month period, with compliance shown at the end of each month.
- (2) When used as a single fuel, No. 4 fuel oil usage shall not exceed 2,437,403 gallons per

twelve (12) consecutive month period, with compliance shown at the end of each month.

- (3) When used as a single fuel, natural gas usage shall not exceed 1,032.23 mmcf per twelve (12) consecutive month period, with compliance shown at the end of each month.

Compliance with these limits, combined with the potential to emit greenhouse gases from all other emission units at this source, shall limit the source-wide total potential to emit greenhouse gases (GHGs) to less than 100,000 tons of CO₂ equivalent emissions (CO₂e) per 12 consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

- (c) **Emission Offset Minor Source**
This modification to an existing Emission Offset minor stationary source will not change the Emission Offset minor status, because the potential to emit of all nonattainment regulated pollutants from the entire source will continue to be less than the Emission Offset major source threshold levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) There are no new New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this proposed revision.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (b) There are no new National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

Compliance Assurance Monitoring (CAM)

- (c) 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 Determination

The following state rules are applicable to the proposed revision:

- (a) **326 IAC 2-8-4 (FESOP)**
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (b) **326 IAC 2-2 (Prevention of Significant Deterioration(PSD))**
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (c) **326 IAC 2-3 (Emission Offset) and 326 IAC 2-1.1-5 (Nonattainment New Source Review)**

This modification to an existing Emission Offset minor stationary source will not change the Emission Offset minor status, because the potential to emit of all nonattainment regulated pollutants from the entire source will continue to be less than the Emission Offset major source threshold levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

This modification to an existing minor stationary source under 326 IAC 2-1.1-5 (Nonattainment New Source Review) will not change the minor status, because the potential to emit of PM_{2.5} from the entire source will continue to be less than 100 tons per year. Therefore, pursuant to 326 IAC 2-1.1-5, the Nonattainment New Source Review requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

- (d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the new fuel to be added is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.
- (e) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (f) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (1) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (g) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the 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.
- (h) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
Due to this revision, the source is not subject to the requirements of 326 IAC 6-5, because the fugitive dust sources do not have potential fugitive particulate emissions greater than 25 tons per year.
- (i) 326 IAC 6-3-2 (Particulate Emissions from Manufacturing Operations)
The addition of natural gas as a fuel is not subject to the requirements of 326 IAC 6-3-2 because it does not involve a manufacturing process. Therefore, the requirements of 326 IAC 6-3-2 do not apply.
- (j) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The unlimited VOC potential emissions from the proposed revision is less than twenty-five (25) tons per year. Therefore the proposed revision is not subject to the requirements of 326 IAC 8-1-6 do not apply.

- (k) There are no other 326 IAC 8 Rules that are applicable to the proposed revision.
- (l) 326 IAC 10-1 (Nitrogen Oxide Control in Clark and Floyd Counties)
This source is not subject to the provision of 326 IAC 10-1 because it does not meet the applicability requirements. The source was constructed after the effective date of this rule and is subject to a New Source Performance Standard (NSPS). This source is subject to NSPS 40 CFR 60, Subpart I. Therefore, pursuant to 326 IAC 10-1(a)(3), the requirements of 326 IAC 10-1 do not apply.

Compliance Determination, Monitoring and Testing Requirements

The existing compliance requirements will not change as the result of this revision. The source shall continue to comply with the applicable requirements and permit conditions as contained in FESOP No. 019-29509-03321, issued on April 28, 2011.

Proposed Changes

- (a) The source has proposed to modify its burners to accept natural gas as a fuel; to make natural gas its primary fuel, but to retain its existing fuels as backup fuels. The permit has been changed as follows. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

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, **and approved for modification in 2012**, with a maximum throughput capacity of two hundred sixty (260) tons of raw material per hour (reduced 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) **dryer, No. 4 residual fuel oil fired burner**, identified as EU1C, **using a natural gas as primary fuel and** using **No. 4 residual fuel and No. 2 distillate fuel oil** as a backup fuels, 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.

D.1 Emission 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, **and approved for modification in 2012**, with a maximum throughput capacity of two hundred sixty (260) tons of raw material per hour (reduced 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) **dryer, No. 4 residual fuel oil fired burner**, identified as EU1C, **using natural gas as primary fuel**, using **No. 4 residual fuel and No. 2 distillate fuel oil** as a backup fuels, 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.

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 (0.7151) 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 (0.2943) pounds of PM10 per ton of asphalt produced.
- (c) PM2.5 emissions from the dryer/mixer shall not exceed three hundred thirteen thousandths (0.3132) 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) ---
- (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.
 - (3) **When used as a single fuel, natural gas usage shall not exceed 1,032.23 mmcf per twelve (12) consecutive month period, with compliance shown 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) ---

(2) Nitrogen oxides NOx emissions from the dryer/mixer burner shall not exceed ~~fifty-seven and twenty-eight (57.28)~~ **ninety-eight and six hundredths (98.06)** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) **Greenhouse gas, as CO2e, emissions from the dryer/mixer burner shall not exceed sixty-two thousand three hundred ninety-eight and eight hundredths (62,398.08) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.**

D.1.12 Multiple Fuel Usage / Sulfur Dioxide (SO2) & Nitrogen Oxide (NOx) 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:

$$S = \frac{[M(0.6) + F(0.071) + R(0.0785)]}{2,000 \text{ lbs/ton}}$$

Where:

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

M = MMCF of natural gas used in the previous twelve (12) months;

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 Rates:

Natural Gas = 0.6 pounds SO2 per MMCF of natural gas combusted;

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 (NOx) emissions shall be determined using the following equation:

$$N = \frac{[M(190.0) + F(0.024) + R(0.047)]}{2000}$$

Where:

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

M = MMCF of natural gas used in the previous twelve (12) months;

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 Rates:

Natural Gas = 190.0 pounds NOx per MMCF of natural gas combusted

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.

- (c) Carbon Dioxide Equivalent (CO₂e) emissions shall be determined using the following equations:

$$CO_2 = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$CH_4 = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$N_2O = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$CO_2e = \sum [(CO_2 \times CO_2 \text{ GWP}) + (CH_4 \times CH_4 \text{ GWP}) + (N_2O \times N_2O \text{ GWP})]$$

Where:

CO₂ = tons of CO₂ emissions for previous twelve (12) consecutive month period;
CH₄ = tons of CH₄ emissions for previous twelve (12) consecutive month period;
N₂O = tons of N₂O emissions for previous twelve (12) consecutive month period;
CO₂e = tons of CO₂e emissions for previous twelve (12) consecutive month period;
M = million cubic feet of natural gas used in previous twelve (12) months;
F = gallons of No. 2 fuel oil used in previous twelve (12) months;
R = gallons of No. 4 fuel oil used in previous twelve (12) months;

CO₂:

E_M = 120,161.84 pounds per million cubic feet of natural gas
E_F = 22,501.41 pounds per gallon of No. 2 fuel oil
E_R = 24.15346 pounds per gallon of No. 4 fuel oil

CH₄:

E_M = 2.49 pounds per million cubic feet of natural gas
E_F = 0.00091 pounds per gallon of No. 2 fuel oil
E_R = 0.00097 pounds per gallon of No. 4 fuel oil

N₂O:

E_M = 2.20 pounds per million cubic feet of natural gas
E_F = 0.00026 pounds per gallon of No. 2 fuel oil
E_R = 0.00019 pounds per gallon of No. 4 fuel oil

Global Warming Potentials (GWP):

Carbon Dioxide (CO₂) = 1
Methane (CH₄) = 21
Nitrous Oxide (N₂O) = 310

E.1 Emission 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, **and approved for modification in 2012**, with a maximum throughput capacity of two hundred sixty (260) tons of raw material per hour (reduced 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) **dryer, No. 4 residual fuel oil fired burner**, identified as EU1C, **using natural gas as primary fuel**, using **No. 4 residual fuel and No. 2 distillate fuel oil** as a backup fuels, 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.

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 gallons
No. 4 Residual Fuel Oil ≤ 0.5 wt% sulfur (gallons)	2,437,403 gallons
Natural Gas (mmcf)	1032.23 mmcf

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:

$$S = \frac{[M(0.6) + F(0.071) + R(0.0785)]}{2,000 \text{ lbs/ton}}$$

Where:

S = tons of sulfur dioxide emissions for previous 12 consecutive month period;
M = MMCF of natural gas used in the dryer/mixer burner in previous 12 months;
 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 Rates:

Natural Gas = 0.6 pounds SO₂ per MMCF of natural gas combusted;

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.

Limit: Nitrogen oxides (NO_x) emissions from the dryer/mixer burner shall not exceed ~~fifty-seven and twenty-eight (57.28)~~ **ninety-eight and six hundredths (98.06)** 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:

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

where:

N = tons of nitrogen oxide emissions for a 12-month consecutive period

M = MMCF of natural gas used in the previous twelve (12) months;

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 residual fuel oil used in the dryer/mixer burner in previous twelve (12) months

E_M = 190.0 lbs/mmcf of natural gas

E_F = 0.024 lbs/gallon of No. 2 distillate fuel oil

E_R = 0.047 lbs/gallon of No. 4 residual fuel oil

Limit: **Carbon Dioxide Equivalent (CO₂e) emissions shall be determined using the following equations:**

$$CO_2 = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$CH_4 = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$N_2O = \frac{[M(E_M) + F(E_F) - R(E_R)]}{2,000}$$

$$CO_2e = \sum [(CO_2 \times CO_2 \text{ GWP}) + (CH_4 \times CH_4 \text{ GWP}) + (N_2O \times N_2O \text{ GWP})]$$

Where:

CO₂ = tons of CO₂ emissions for previous twelve (12) consecutive month period;

CH₄ = tons of CH₄ emissions for previous twelve (12) consecutive month period;

N₂O = tons of N₂O emissions for previous twelve (12) consecutive month period;

CO₂e = tons of CO₂e emissions for previous twelve (12) consecutive month period;

M = million cubic feet of natural gas used in previous twelve (12) months;

F = gallons of No. 2 fuel oil used in previous twelve (12) months;

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

CO₂:

E_M = 120,161.84 pounds per million cubic feet of natural gas

E_F = 22,501.41 pounds per gallon of No. 2 fuel oil

E_R = 24.15346 pounds per gallon of No. 4 fuel oil

CH₄:

E_M = 2.49 pounds per million cubic feet of natural gas

E_F = 0.00091 pounds per gallon of No. 2 fuel oil

E_R = 0.00097 pounds per gallon of No. 4 fuel oil

N₂O:

E_M = 2.20 pounds per million cubic feet of natural gas

E_F = 0.00026 pounds per gallon of No. 2 fuel oil

E_R = 0.00019 pounds per gallon of No. 4 fuel oil

Global Warming Potentials (GWP):

Carbon Dioxide (CO₂) = 1

Methane (CH₄) = 21

Nitrous Oxide (N₂O) = 310

FESOP Quarterly Report

Multiple Fuel Usage QUARTER: _____ YEAR: _____

Month	Fuel Types (units)	Column 1	Column 2		Column 1 + Column	Equation Results	
		Usage This Month	Usage Previous 11 Months		Usage 12 Month Total	Sulfur Dioxide (SO ₂) Emissions (tons per 12 months)	Nitrogen Oxides (NO _x) Emissions (tons per 12 months)
Month 1	No. 2 distillate Fuel Oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			F			
	No. 4 residual fuel oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			R			
	Natural Gas usage (mmcf) [dryer/mixer burner]			M			
Month 2	No. 2 distillate Fuel Oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			F			
	No. 4 residual fuel oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			R			
	Natural Gas usage (mmcf) [dryer/mixer burner]			M			
Month 3	No. 2 distillate Fuel Oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			F			
	No. 4 residual fuel oil ≤ 0.5 wt% sulfur (gallons) [dryer/mixer burner]			R			

Natural Gas usage (mmcf) [dryer/mixer burner]			M			
---	--	--	---	--	--	--

- (b) Upon further review, IDEM, OAQ has evaluated greenhouse gases, as CO₂e for the source, and has made the following changes to the permit. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

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) ---

- (4) **The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per twelve (12) consecutive month period.**

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 January 20, 2012.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Revision No. 019-31391-03321. The staff recommends to the Commissioner that this FESOP Significant Revision be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Jack Harmon 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) 233-4228 or toll free at 1-800-451-6027 extension 3-4228.
- (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.in.gov/idem

**Appendix A.1: Unlimited Emissions Calculations
Entire Source - Drum Mix**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

Asphalt Plant Maximum Capacity - Drum Mix

Maximum Hourly Asphalt Production =	260	ton/hr									
Maximum Annual Asphalt Production =	2,277,600	ton/yr									
Maximum Annual Blast Furnace Slag Usage =	0	ton/yr	1.5	% sulfur							
Maximum Annual Steel Slag Usage =	0	ton/yr	0.66	% sulfur							
Maximum Dryer Fuel Input Rate =	150.0	MMBtu/hr									
Natural Gas Usage =	1,314	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	0.50	% 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	0.20	gr/100 ft3 sulfur							
Butane Usage =	0	gal/yr, and	0.22	gr/100 ft3 sulfur							
Used/Waste Oil Usage =	0	gal/yr, and	1.00	% sulfur	0.50	% ash	0.200	% chlorine,	0.010	% lead	
Diesel Fuel Usage - Generator < 600 HP =	0	gal/yr, and									
Diesel Fuel Usage - Generator > 600 HP =	0	gal/yr	0.50	% sulfur							
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 Blast Furnace Slag SO2 Dryer/Mixer Emission Factor =	0.00	lb/ton of slag processed									
Unlimited Steel Slag SO2 Dryer/Mixer Emission Factor =	0.0000	lb/ton of slag processed									

Unlimited/Uncontrolled Emissions

Process Description	Unlimited/Uncontrolled Potential to Emit (tons/year)									
	Criteria Pollutants							Greenhouse Gas Pollutants	Hazardous Air Pollutants	
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	CO ₂ e	Total HAPs	Worst Case HAP
Ducted Emissions										
Dryer Fuel Combustion (worst case)	36.67	43.71	43.71	368.39	220.56	3.61	55.19	117,416.90	2.02	1.18 (hydrogen chloride)
Dryer/Mixer (Process)	31,886.40	7,402.20	1,708.20	66.05	62.63	36.44	148.04	37,867.38	12.14	3.53 (formaldehyde)
Dryer/Mixer Slag Processing (worst case)	0	0	0	0.00	0	0	0	0.00	0	0
Hot Oil Heater Fuel Combustion (worst case)	0.09	0.15	0.15	3.33	0.94	0.01	0.23	1,060.64	0.003	0.003 (hexane)
Diesel-Fired Generator < 600 HP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000 (formaldehyde)
Diesel-Fired Generator > 600 HP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000 (benzene)
Worst Case Emissions*	31,886.49	7,402.35	1,708.35	371.72	221.50	36.45	148.28	118,477.54	12.14	3.53 (hydrogen chloride)
Fugitive Emissions										
Asphalt Load-Out, Silo Filling, On-Site Yard	1.26	1.26	1.26	0	0	19.51	3.28	0	0.33	0.10 (formaldehyde)
Material Storage Piles	1.19	0.41	0.41	0	0	0	0	0	0	0
Material Processing and Handling	7.36	3.48	0.53	0	0	0	0	0	0	0
Material Crushing, Screening, and Conveying	36.13	13.20	13.20	0	0	0	0	0	0	0
Unpaved and Paved Roads (worst case)	80.94	20.63	2.06	0	0	0	0	0	0	0
Cold Mix Asphalt Production	0	0	0	0	0	27,371.06	0	0	7,139.38	2,463.40 (xylenes)
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0.00	0	0	0.00	0.00 (xylenes)
Volatile Organic Liquid Storage Vessels	0	0	0	0	0	negl	0	0	negl	0
Total Fugitive Emissions	126.88	38.98	17.46	0.00	0.00	27,390.57	3.28	0.00	7,139.71	2,463.40 (xylenes)
Totals Unlimited/Uncontrolled PTE	32,013.37	7,441.34	1,725.82	371.72	221.50	27,427.02	151.56	118,477.54	7,151.85	2,463.40 (xylenes)

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 + Worst Case Emissions From Dryer/Mixer Slag Processing + Worst Case Emissions from Hot Oil Heater Fuel Combustion + Diesel-Fired Generator < 600 HP + Diesel-Fired Generator > 600 HP
 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: F019-31391-03321
Reviewer: Jack Harmon

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 =	1,314	MMCF/yr
No. 2 Fuel Oil Usage =	9,385,714	gal/yr, and
No. 4 Fuel Oil Usage =	0	gal/yr, and
Residual (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
	0.50	% sulfur
	0.50	% sulfur
	0.50	% sulfur
	0.20	gr/100 ft3 sulfur
	0.22	gr/100 ft3 sulfur
	1.00	% sulfur
	0.50	% ash
	0.200	% chlorine
	0.010	% lead

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)	No. 4 Fuel Oil* (lb/kgal)	Residual (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)	
PM	1.9	2.0	7.0	7.815	0.5	0.6	32.0	1.25	9.39	0.00	36.67	0.000	0.000	0.00	36.67
PM10/PM2.5	7.6	3.3	8.3	9.315	0.5	0.6	25.5	4.99	15.49	0.00	43.71	0.000	0.000	0.00	43.71
SO2	0.6	71.0	75.0	78.5	0.020	0.020	147.0	0.39	333.19	0.00	368.39	0.000	0.000	0.00	368.39
NOx	190	24.0	47.0	47.0	13.0	15.0	19.0	124.83	112.63	0.00	220.56	0.00	0.00	0.00	220.56
VOC	5.5	0.20	0.20	0.28	1.00	1.10	1.0	3.61	0.94	0.00	1.31	0.00	0.00	0.00	3.61
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	55.188	23.46	0.00	23.46	0.00	0.00	0.00	55.19
Hazardous Air Pollutant															
HCl							13.2							0.00	0.00
Antimony			5.25E-03	5.25E-03			negl			0.00E+00	2.46E-02			negl	2.5E-02
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03			1.1E-01	1.3E-04	2.63E-03	0.00E+00	6.19E-03			0.00E+00	6.2E-03
Beryllium	1.2E-05	4.2E-04	2.79E-05	2.79E-05			negl	7.9E-06	1.97E-03	0.00E+00	1.30E-04			negl	2.0E-03
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04			9.3E-03	7.2E-04	1.97E-03	0.00E+00	1.87E-03			0.00E+00	2.0E-03
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04			2.0E-02	9.2E-04	1.97E-03	0.00E+00	3.97E-03			0.00E+00	4.0E-03
Cobalt	8.4E-05	6.02E-03	6.02E-03	6.02E-03			2.1E-04	5.5E-05		0.00E+00	2.83E-02			0.00E+00	2.8E-02
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03			0.55	3.3E-04	5.91E-03	0.00E+00	7.09E-03			0.0E+00	0.01
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03			6.8E-02	2.5E-04	3.94E-03	0.00E+00	1.41E-02			0.00E+00	0.01
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04				1.7E-04	1.97E-03	0.00E+00	5.30E-04				2.0E-03
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02			1.1E-02	1.4E-03	1.97E-03	0.00E+00	3.97E-01			0.00E+00	0.397
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04			negl	1.6E-05	9.86E-03	0.00E+00	3.21E-03			negl	9.9E-03
1,1,1-Trichloroethane			2.36E-04	2.36E-04						0.00E+00	1.11E-03				1.1E-03
1,3-Butadiene															0.0E+00
Acetaldehyde															0.0E+00
Acrolein															0.0E+00
Benzene	2.1E-03		2.14E-04	2.14E-04				1.4E-03		0.00E+00	1.00E-03				1.4E-03
Bis(2-ethylhexyl)phthalate							2.2E-03							0.00E+00	0.0E+00
Dichlorobenzene	1.2E-03						8.0E-07	7.9E-04						0.00E+00	7.9E-04
Ethylbenzene			6.36E-05	6.36E-05						0.00E+00	2.98E-04				3.0E-04
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				4.9E-02	2.86E-01	0.00E+00	1.55E-01				0.286
Hexane	1.8E+00							1.18							1.183
Phenol							2.4E-03							0.00E+00	0.0E+00
Toluene	3.4E-03		6.20E-03	6.20E-03				2.2E-03		0.00E+00	2.91E-02				2.9E-02
Total PAH Haps	negl		1.13E-03	1.13E-03			3.9E-02	negl		0.00E+00	5.30E-03			0.00E+00	5.3E-03
Polycyclic Organic Matter		3.30E-03							1.55E-02						1.5E-02
Xylene			1.09E-04	1.09E-04						0.00E+00	5.12E-04				5.1E-04
Total HAPs								1.24	0.33	0.00	0.68	0	0	0.00	2.02

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, 1.3-4, 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)
 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

*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.1: Unlimited Emissions Calculations
Greenhouse Gas (CO₂e) Emissions from the
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: F919-31391-03321
Reviewer: Jack Harmon

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 =	1,314	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		0.50	% sulfur						
Residual (No. 5 or No. 6) Fuel Oil Usage =	9,385,714	gal/yr, and		0.50	% sulfur						
Propane Usage =	0	gal/yr, and		0.20	gr/100 ft ³ sulfur						
Butane Usage =	0	gal/yr, and		0.22	gr/100 ft ³ sulfur						
Used/Waste Oil Usage =	0	gal/yr, and		1.00	% sulfur	0.50	% ash	0.200	% chlorine,	0.010	% lead

Unlimited/Uncontrolled Emissions

CO ₂ e Fraction	Emission Factor (units)							Global Warming Potentials (GWP)		
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil (lb/kgal)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)	Name	Chemical Formula	Global warming potential
CO ₂	120,161.84	22,501.41	24,153.46	24,835.04	12,500.00	14,506.73	22,024.15	Carbon dioxide	CO ₂	1
CH ₄	2.49	0.91	0.97	1.00	0.60	0.67	0.89	Methane	CH ₄	21
N ₂ O	2.2	0.26	0.19	0.53	0.9	0.9	0.18	Nitrous oxide	N ₂ O	310

CO ₂ e Fraction	Unlimited/Uncontrolled Potential to Emit (tons/yr)						
	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)
CO ₂	78,946.33	105,595.90	0.00	116,547.32	0.00	0.00	0.00
CH ₄	1.64	4.28	0.00	4.69	0.00	0.00	0.00
N ₂ O	1.45	1.22	0.00	2.49	0.00	0.00	0.00
Total	78,949.41	105,601.41	0.00	116,554.90	0.00	0.00	0.00
CO ₂ e Equivalent Emissions (tons/yr)	79,428.81	106,064.11	0.00	117,416.90	0.00	0.00	0.00

CO₂e for Worst Case Fuel* (tons/yr)
117,416.90

Methodology

Fuel Usage from TSD Appendix A.1, page 1 of 14.

Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]

Fuel 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/0.0915 MMBtu]

Butane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.102 MMBtu]

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Sources of Emission Factors for fuel combustion: (Note: To form a conservative estimate, the "worst case" emission factors have been used.)

Natural Gas: Emission Factors for CO₂ and CH₄ from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/MMCF. Emission Factor for N₂O from AP-42 Chapter 1.4 (dated 7/98), Table 1.4-2

No. 2, No. 4, and Residual (No. 5 or No. 6) Emission Factors for CO₂ and CH₄ from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal. Emission Factor for N₂O from AP-42 Chapter 1.3 (dated 5/10), Fuel Oil: Table 1.3-8

Propane: Emission Factor for CH₄ from 40 CFR Part 98 Subpart C, Tables C-1 and 2, has been converted from kg/mmBtu to lb/kgal. Emission Factors for CO₂ and N₂O from AP-42 Chapter 1.5 (dated 7/08), Table 1.5-1

Butane: Emission Factors for CO₂ and CH₄ from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal. Emission Factor for N₂O from AP-42 Chapter 1.5 (dated 7/08), Table 1.5-1

Waste Oil: Emission Factors for CO₂, CH₄, and N₂O from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal.

Emission Factor (EF) Conversions:

Natural Gas: EF (lb/MMCF) = [EF (kg/MMBtu)] * Conversion Factor (2.20462 lbs/kg) * Heating Value of Natural Gas (MMBtu/scf) * Conversion Factor (1,000,000 scf/MMCF)

Fuel Oil: EF (lb/kgal) = [EF (kg/MMBtu)] * Conversion Factor (2.20462 lbs/kg) * Heating Value of the Fuel Oil (MMBtu/gal) * Conversion Factor (1000 gal/kgal)

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]

Unlimited Potential to Emit CO₂e (tons/yr) = Unlimited Potential to Emit CO₂ of "worst case" fuel (ton/yr) x CO₂ GWP (1) + Unlimited Potential to Emit CH₄ of "worst case" fuel (ton/yr) x CH₄ GWP (21) + Unlimited Potential to Emit N₂O of "worst case" fuel (ton/yr) x N₂O GWP (310).

Abbreviations

PTE = Potential to Emit

CO₂ = Carbon Dioxide

CH₄ = Methane

N₂O = Nitrogen Dioxide

**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: F019-31391-03321
Reviewer: Jack Harmon**

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

Maximum Hourly Asphalt Production = ton/hr
Maximum Annual Asphalt Production = 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	31886.4	31886.4	31886.4	31886.4
PM10*	6.5	6.5	6.5	7402.2	7402.2	7402.2	7402.2
PM2.5*	1.5	1.5	1.5	1708.2	1708.2	1708.2	1708
SO2**	0.0034	0.011	0.058	3.9	12.5	66.1	66.1
NOx**	0.026	0.055	0.055	29.6	62.6	62.6	62.6
VOC**	0.032	0.032	0.032	36.4	36.4	36.4	36.4
CO***	0.13	0.13	0.13	148.0	148.0	148.0	148.0
Hazardous Air Pollutant							
HCl			2.10E-04			2.39E-01	0.24
Antimony	1.80E-07	1.80E-07	1.80E-07	2.05E-04	2.05E-04	2.05E-04	2.05E-04
Arsenic	5.60E-07	5.60E-07	5.60E-07	6.38E-04	6.38E-04	6.38E-04	6.38E-04
Beryllium	negl	negl	negl	negl	negl	negl	0.00E+00
Cadmium	4.10E-07	4.10E-07	4.10E-07	4.67E-04	4.67E-04	4.67E-04	4.67E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	6.26E-03	6.26E-03	6.26E-03	6.26E-03
Cobalt	2.60E-08	2.60E-08	2.60E-08	2.96E-05	2.96E-05	2.96E-05	2.96E-05
Lead	6.20E-07	1.50E-05	1.50E-05	7.06E-04	1.71E-02	1.71E-02	1.71E-02
Manganese	7.70E-06	7.70E-06	7.70E-06	8.77E-03	8.77E-03	8.77E-03	8.77E-03
Mercury	2.40E-07	2.60E-06	2.60E-06	2.73E-04	2.96E-03	2.96E-03	2.96E-03
Nickel	6.30E-05	6.30E-05	6.30E-05	0.07	0.07	0.07	0.07
Selenium	3.50E-07	3.50E-07	3.50E-07	3.99E-04	3.99E-04	3.99E-04	3.99E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	0.05	0.05	0.05	0.05
Acetaldehyde			1.30E-03			1.48	1.48
Acrolein			2.60E-05			2.96E-02	2.96E-02
Benzene	3.90E-04	3.90E-04	3.90E-04	0.44	0.44	0.44	0.44
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.27	0.27	0.27	0.27
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	3.53	3.53	3.53	3.53
Hexane	9.20E-04	9.20E-04	9.20E-04	1.05	1.05	1.05	1.05
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.05	0.05	0.05	0.05
MEK			2.00E-05			0.02	0.02
Propionaldehyde			1.30E-04			0.15	0.15
Quinone			1.60E-04			0.18	0.18
Toluene	1.50E-04	2.90E-03	2.90E-03	0.17	3.30	3.30	3.30
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.22	1.00	1.00	1.00
Xylene	2.00E-04	2.00E-04	2.00E-04	0.23	0.23	0.23	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

VOC - Volatile Organic Compounds

HAP = Hazardous Air Pollutant

HCl = Hydrogen Chloride

PAH = Polyaromatic Hydrocarbon

SO2 = Sulfur Dioxide

**Appendix A.1: Unlimited Emissions Calculations
Greenhouse Gas (CO2e) Emissions from the
Drum-Mix Plant (Dryer/Mixer) Process Emissions**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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

Maximum Hourly Asphalt Production = ton/hr
 Maximum Annual Asphalt Production = ton/yr

Criteria Pollutant	Emission Factor (lb/ton) Drum-Mix Plant (dryer/mixer)			Global Warming Potentials (GWP)	Unlimited/Uncontrolled Potential to Emit (tons/yr) Drum-Mix Plant (dryer/mixer)			CO2e for Worst Case Fuel (tons/yr)
	Natural Gas	No. 2 Fuel Oil	Waste Oil		Natural Gas	No. 2 Fuel Oil	Waste Oil	
CO2	33	33	33	1	37,580.40	37,580.40	37,580.40	37,867.38
CH4	0.0120	0.0120	0.0120	21	13.67	13.67	13.67	
N2O				310	0	0	0	
Total					37,594.07	37,594.07	37,594.07	
CO2e Equivalent Emissions (tons/yr)					37,867.38	37,867.38	37,867.38	

Methodology

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. Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-7 and 11.1-8. There are no emission factors for N2O available in either the 40 CFR 98, Subpart C or AP-42 Chapter 11.1. Therefore, it is assumed that there are no N2O emission anticipated from this process.

Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
 Unlimited Potential to Emit CO2e (tons/yr) = Unlimited Potential to Emit CO2 of "worst case" fuel (ton/yr) x CO2 GWP (1) + Unlimited Potential to Emit CH4 of "worst case" fuel (ton/yr) x CH4 GWP (21) + Unlimited Potential to Emit N2O of "worst case" fuel (ton/yr) x N2O GWP (310).

Abbreviations

CO2 = Carbon Dioxide CH4 = Methane N2O = Nitrogen Dioxide PTE = Potential to Emit

**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: F019-31391-03321
Reviewer: Jack Harmon

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

Maximum Annual Blast Furnace Slag Usage* = ton/yr % sulfur
 Maximum Annual Steel Slag Usage* = ton/yr % sulfur

Type of Slag	SO2 Emission Factor (lb/ton)**	Unlimited Potential to Emit SO2 (tons/yr)
Blast Furnace Slag	0.00	0.0
Steel Slag	0.0000	0.00

Methodology

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

** Testing results for blast furnace 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 blast furnace 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%.

** Testing results for steel slag, obtained June 2009 from E & B Paving, Inc. facility located in Huntington, IN. The testing results showed a steel slag emission factor of 0.0007 lb/ton from slag containing 0.33% sulfur content.

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 Location: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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	0.000	0.094	0.09
PM10/PM2.5	7.6	3.3	0.000	0.155	0.15
SO2	0.6	71.0	0.000	3.332	3.33
NOx	100	20.0	0.000	0.939	0.94
VOC	5.5	0.20	0.000	0.009	0.01
CO	84	5.0	0.000	0.235	0.23
Hazardous Air Pollutant					
Arsenic	2.0E-04	5.6E-04	0.0E+00	2.63E-05	2.6E-05
Beryllium	1.2E-05	4.2E-04	0.0E+00	1.97E-05	2.0E-05
Cadmium	1.1E-03	4.2E-04	0.0E+00	1.97E-05	2.0E-05
Chromium	1.4E-03	4.2E-04	0.0E+00	1.97E-05	2.0E-05
Cobalt	8.4E-05		0.0E+00		0.0E+00
Lead	5.0E-04	1.3E-03	0.0E+00	5.91E-05	5.9E-05
Manganese	3.8E-04	8.4E-04	0.0E+00	3.94E-05	3.9E-05
Mercury	2.6E-04	4.2E-04	0.0E+00	1.97E-05	2.0E-05
Nickel	2.1E-03	4.2E-04	0.0E+00	1.97E-05	2.0E-05
Selenium	2.4E-05	2.1E-03	0.0E+00	9.86E-05	9.9E-05
Benzene	2.1E-03		0.0E+00		0.0E+00
Dichlorobenzene	1.2E-03		0.0E+00		0.0E+00
Ethylbenzene					0.0E+00
Formaldehyde	7.5E-02	6.10E-02	0.0E+00	2.86E-03	2.9E-03
Hexane	1.8E+00		0.00		0.0E+00
Phenol					0.0E+00
Toluene	3.4E-03		0.0E+00		0.0E+00
Total PAH Haps	negl		negl		0.0E+00
Polycyclic Organic Matter		3.30E-03		1.55E-04	1.5E-04
Total HAPs =			0.0E+00	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 1.3-11

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.1: Unlimited Emissions Calculations
Greenhouse Gas (CO₂e) Emissions from
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: F019-31391-03321
Reviewer: Jack Harmon

Maximum Hot Oil Heater Fuel Input Rate = 1.50 MMBtu/hr
 Natural Gas Usage = 0.00 MMCF/yr
 No. 2 Fuel Oil Usage = 93,857.14 gal/yr, 0.50 % sulfur

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units)		Global Warming Potentials (GWP)	Potential to Emit (tons/yr)	
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)		Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)
CO ₂	120,161.84	22,501.41	1	0.00	1,055.96
CH ₄	2.49	0.91	21	0.00	0.04
N ₂ O	2.2	0.26	310	0.00	0.01
				0.00	1,056.01

Worse Case CO₂e Emissions (tons/yr)
1,060.64

CO ₂ e Equivalent Emissions (tons/yr)	0.00	1,060.64
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Methodology

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

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]

Sources of Emission Factors for fuel combustion: (Note: To form a conservative estimate, the "worst case" emission factors have been used.)

Natural Gas: Emission Factors for CO₂ and CH₄ from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/MMCF. Emission Factor for N₂O from AP-42 Chapter 1.4 (dated 7/98), Table 1.4-2

No. 2 Fuel Oil: Emission Factors for CO₂ and CH₄ from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal. Emission Factor for N₂O from AP-42 Chapter 1.3 (dated 5/10), Table 1.3-8

Emission Factor (EF) Conversions

Natural Gas: EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of Natural Gas (MMBtu/scf) * Conversion Factor (1,000,000 scf/MMCF)]

Fuel Oils: EF (lb/kgal) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of the Fuel Oil (MMBtu/gal) * Conversion Factor (1000 gal/kgal)]

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]

Unlimited Potential to Emit CO₂e (tons/yr) = Unlimited Potential to Emit CO₂ of "worst case" fuel (ton/yr) x CO₂ GWP (1) + Unlimited Potential to Emit CH₄ of "worst case" fuel (ton/yr) x CH₄ GWP (21) + Unlimited Potential to Emit N₂O of "worst case" fuel (ton/yr) x N₂O GWP (310).

Abbreviations

CO₂ = Carbon Dioxide
 CH₄ = Methane

N₂O = Nitrogen Dioxide
 PTE = Potential to Emit

Appendix A.1: Unlimited Emissions Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

Output Horsepower Rating (hp)	0.0
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	0
Maximum Diesel Fuel Usage (gal/yr)	0

	Pollutant						
	PM ²	PM10 ²	direct PM2.5 ²	SO ₂	NO _x	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Emission Factor in lb/kgal ¹	43.07	43.07	43.07	40.13	606.85	49.22	130.77
Potential Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

¹The AP-42 Chapter 3.3-1 emission factors in lb/hp-hr were converted to lb/kgal emission factors using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

¹Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) * 1/7,000 (hp-hr/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

²PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							Total PAH HAPs ³
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	
Emission Factor in lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	3.91E-05	1.18E-03	7.67E-04	9.25E-05	1.68E-04
Emission Factor in lb/kgal ⁴	1.28E-01	5.60E-02	3.91E-02	5.36E-03	1.62E-01	1.05E-01	1.27E-02	2.30E-02
Potential Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

³PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

⁴The AP-42 Chapter 3.3-1 emission factors in lb/MMBtu were converted to lb/kgal emission factors using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁴Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) * 1/10⁶ (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Potential Emission of Total HAPs (tons/yr)	0.00E+00
Potential Emission of Worst Case HAPs (tons/yr)	0.00E+00

Green House Gas Emissions (GHG)

	Pollutant		
	CO ₂ ⁵	CH ₄ ⁶	N ₂ O ⁶
Emission Factor in lb/hp-hr	1.15	NA	NA
Emission Factor in kg/MMBtu	NA	0.003	0.0006
Emission Factor in lb/kgal	22,512.07	0.91	0.18
Potential Emission in tons/yr	0.00	0.000	0.000

⁵The AP-42 Chapter 3.3-1 emission factor in lb/hp-hr was converted to lb/kgal emission factor using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁵Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) * 1/7,000 (hp-hr/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

⁶The 40 CFR 98 Subpart C emission factors in kg/MMBtu were converted to lb/kgal emission factors using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁶Emission factor (lb/kgal) = 40 CFR 98 EF (kg/MMBtu) * 2.20462 (lb/kg) * 1/10⁶ (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Summed Potential Emissions in tons/yr	0.00
CO₂e Total in tons/yr	0.00

Methodology

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]

Maximum Diesel Fuel Usage (gal/yr) = Potential Throughput (hp-hr/yr) * 7000 (Btu/hp-hr) * 1/19300 (lb/Btu) * 1/7.1 (gal/lb)

Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2 and have been converted to lb/kgal

CH₄ and N₂O Emission Factor from 40 CFR 98 Subpart C Table C-2 and have been converted to lb/kgal

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Emissions (tons/yr) = [Maximum Diesel Fuel Usage (gal/yr) x Emission Factor (lb/kgal)] / (1,000 gal/kgal) / (2,000 lb/ton)

CO₂e (tons/yr) = CO₂ Potential Emission ton/yr x CO₂ GWP (1) + CH₄ Potential Emission ton/yr x CH₄ GWP (21) + N₂O Potential Emission ton/yr x N₂O GWP (310).

Appendix A.1: Unlimited Emissions Calculations
Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

Output Horsepower Rating (hp)	0.0	Sulfur Content (S) of Fuel (% by weight)	0.50
Maximum Hours Operated per Year	8760		
Potential Throughput (hp-hr/yr)	0		
Maximum Diesel Fuel Usage (gal/yr)	0		

	Pollutant						
	PM	PM10 ²	direct PM2.5 ²	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04			4.05E-03 (.00809S)	2.40E-02	7.05E-04	5.50E-03
Emission Factor in lb/MMBtu		0.0573	0.0573				
Emission Factor in lb/kgal ¹	13.70	7.85	7.85	79.18	469.82	13.80	107.67
Potential Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

¹ The AP-42 Chapter 3.4-1 emission factors in lb/hp-hr were converted to lb/kgal emission factors using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

¹Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) * 1/7,000 (hp-hr/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

²Emission factors in lb/kgal were converted from the AP-42 Chapter 3.4-1 emission factors in lb/MMBtu using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

²Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) * 1/10⁶ (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Hazardous Air Pollutants (HAPs)

	Pollutant						Total PAH HAPs ³
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	
Emission Factor in lb/MMBtu	7.76E-04	2.81E-04	1.93E-04	7.89E-05	2.52E-05	7.88E-06	2.12E-04
Emission Factor in lb/kgal ⁴	1.06E-01	3.85E-02	2.64E-02	1.08E-02	3.45E-03	1.08E-03	2.91E-02
Potential Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

³PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

⁴Emission factors in lb/kgal were converted from the AP-42 Chapter 3.4-1 emission factors in lb/MMBtu using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁴Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) * 1/10⁶ (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Potential Emission of Total HAPs (tons/yr)	0.00E+00
Potential Emission of Worst Case HAPs (tons/yr)	0.00E+00

Green House Gas Emissions (GHG)

	Pollutant		
	CO2 ⁵	CH4 ^{5,6}	N2O ⁷
Emission Factor in lb/hp-hr	1.16	6.35E-05	NA
Emission Factor in kg/MMBtu	NA	NA	0.0006
Emission Factor in lb/kgal	22,707.83	1.24	0.18
Potential Emission in tons/yr	0.00	0.00	0.00

⁵ The AP-42 Chapter 3.4-1 emission factors in lb/hp-hr were converted to lb/kgal emission factors using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁵Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) * 1/7,000 (hp-hr/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

⁶According to AP-42, Table 3.4-1, TOC (as CH4) is 9% methane by weight. As a result, the lb/hp-hr emission factor for TOC (as CH4) in AP-42 has been multiplied by 9% to determine the portion that is emitted as methane.

⁷The 40 CFR 98 Subpart C emission factors in kg/MMBtu were converted to lb/kgal emission factors using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁷Emission factor (lb/kgal) = 40 CFR 98 EF (kg/MMBtu) * 2.20462 (lb/kg) * 1/10⁶ (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Summed Potential Emissions in tons/yr	0.00
CO2e Total in tons/yr	0.00

Methodology

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]

Maximum Diesel Fuel Usage (gal/yr) = Potential Throughput (hp-hr/yr) * 7000 (Btu/hp-hr) * 1/19300 (lb/Btu) * 1/7.1 (gal/lb)

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4 and have been converted to lb/kgal.

N2O Emission Factor from 40 CFR 98 Subpart C Table C-2 and have been converted to lb/kgal.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Emissions (tons/yr) = [Maximum Diesel Fuel Usage (gal/yr) x Emission Factor (lb/kgal)] / (1,000 gal/kgal) / (2,000 lb/ton)

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O

Potential Emission ton/yr x N2O GWP (310).

**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: F019-31391-03321
Reviewer: Jack Harmon**

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)::

Total PM/PM10/PM2.5 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

TOC = Total Organic Compounds

CO = Carbon Monoxide

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

**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: F019-31391-03321
 Reviewer: Jack Harmon

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
 HAP = Hazardous Air Pollutant
 VOC = Volatile Organic Compound
 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: F019-31391-03321
Reviewer: Jack Harmon

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.

$E_f = 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15)$ <p>where E_f = emission factor (lb/acre/day) s = silt content (wt %) p = <input type="text" value="125"/> days of rain greater than or equal to 0.01 inches f = <input type="text" value="15"/> % of wind greater than or equal to 12 mph</p>

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-Mfd.	2.6	3.01	0.10	0.055	0.019
Limestone	1.6	1.85	2.75	0.929	0.325
RAP	1	1.16	0.10	0.021	0.007
Shingles	2	2.31	0.10	0.042	0.015
Totals				1.19	0.41

Methodology

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

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 (acres) provided by the source.

RAP - recycled asphalt pavement

Abbreviations

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

PM2.5 = PM10

PTE = Potential to Emit

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: F019-31391-03321
Reviewer: Jack Harmon

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.

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

where: E_f = Emission factor (lb/ton)

k (PM) =	0.74	= particle size multiplier (0.74 assumed for aerodynamic diameter <=100 um)
k (PM10) =	0.35	= particle size multiplier (0.35 assumed for aerodynamic diameter <=10 um)
k (PM2.5) =	0.053	= particle size multiplier (0.053 assumed for aerodynamic diameter <=2.5 um)
U =	10.2	= worst case annual mean wind speed (Source: NOAA, 2006*)
M =	4.0	= material % moisture content of aggregate (Source: AP-42 Section 11.1.1.1)
Ef (PM) =	2.27E-03	lb PM/ton of material handled
Ef (PM10) =	1.07E-03	lb PM10/ton of material handled
Ef (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
 PM10 = Particulate Matter (<10 um)
 PM2.5 = Particulate matter (< 2.5 um)
 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: F019-31391-03321
Reviewer: Jack Harmon

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	5488.3
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.0	9.7E+04	1.6E+06	300	0.057	5488.3
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	29271.1
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	5.2E+05	7.7E+06	300	0.057	29271.1
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.0	9.5E+04	3.9E+06	300	0.057	5392.0
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.0	9.5E+04	1.6E+06	300	0.057	5392.0
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, $E_{ext} = E \cdot [(365 - P)/365]$

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

	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)

Abbreviations

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

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

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, IN 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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	39.40	9.7E+04	3.8E+06	300	0.057	5488.3
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.00	9.7E+04	1.6E+06	300	0.057	5488.3
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.00	3.2E+03	1.5E+05	300	0.057	179.7
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	3.2E+03	3.8E+04	300	0.057	179.7
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.00	9.9E+02	4.4E+04	300	0.057	56.3
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	9.9E+02	1.2E+04	300	0.057	56.3
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.20	5.2E+05	9.9E+06	300	0.057	29271.1
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.00	5.2E+05	7.7E+06	300	0.057	29271.1
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.00	9.5E+04	3.9E+06	300	0.057	5392.0
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.00	9.5E+04	1.6E+06	300	0.057	5392.0
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, $E_f = [k * (sL)^{0.91} * (W)^{1.02}]$ (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	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)
sL =	0.6	0.6	0.6	g/m ² = Ubiquitous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

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

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, E_f	0.15	0.03	0.01	lb/mile
Mitigated Emission Factor, E_{ext}	0.14	0.03	0.01	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)	0.41	0.08	0.02	0.37	0.07	0.02	0.19	0.04	0.01
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	0.41	0.08	0.02	0.37	0.07	0.02	0.19	0.04	0.01
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.013	0.003	6.6E-04	0.012	0.002	6.0E-04	0.006	1.2E-03	3.0E-04
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.013	0.003	6.6E-04	0.012	0.002	6.0E-04	0.006	1.2E-03	3.0E-04
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	4.2E-03	8.4E-04	2.1E-04	3.8E-03	7.7E-04	1.9E-04	1.9E-03	3.8E-04	9.4E-05
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	4.2E-03	8.4E-04	2.1E-04	3.8E-03	7.7E-04	1.9E-04	1.9E-03	3.8E-04	9.4E-05
Aggregate/RAP Loader Full	Front-end loader (3 CY)	2.18	0.44	0.11	1.99	0.40	0.10	1.00	0.20	0.05
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	2.18	0.44	0.11	1.99	0.40	0.10	1.00	0.20	0.05
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	0.40	0.08	0.02	0.37	0.07	0.02	0.18	0.04	0.01
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	0.40	0.08	0.02	0.37	0.07	0.02	0.18	0.04	0.01
Totals		6.01	1.20	0.29	5.49	1.10	0.27	2.75	0.55	0.13

Methodology

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

Abbreviations

PM = Particulate Matter
 PM10 = Particulate Matter (<10 um)
 PM2.5 = Particulate Matter (<2.5 um)
 PM2.5 = PM10
 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: F019-31391-03321
Reviewer: Jack Harmon

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 %) =	5.0%	
Maximum Asphalt Cement/Binder Throughput =	113,880	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%	28,811.6	27,371.1
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	32,569.7	22,798.8
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	22,776.0	5,694.0
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	17,082.0	7,926.0
Other asphalt with solvent binder	25.9%	2.5%	29,494.9	737.4
Worst Case PTE of VOC =				27,371.1

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) =	7,139.38
PTE of Single HAP (tons/yr) =	2,463.40 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.

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: F019-31391-03321
Reviewer: Jack Harmon**

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:

$$\begin{aligned} \text{Gasoline Throughput} &= \boxed{0} \text{ gallons/day} \\ &= \boxed{0.0} \text{ kgal/yr} \end{aligned}$$

Volatile Organic Compounds

Emission Source	Emission Factor (lb/kgal of throughput)	PTE of VOC (tons/yr)*
Filling storage tank (balanced submerged filling)	0.3	0.00
Tank breathing and emptying	1.0	0.00
Vehicle refueling (displaced losses - controlled)	1.1	0.00
Spillage	0.7	0.00
Total		0.00

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) =	0.00
Limited PTE of Single HAP (tons/yr) =	0.00 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.

Abbreviations

VOC = Volatile Organic Compounds

PTE = Potential to Emit

Appendix A.2: Limited Emissions Summary
Entire Source - Drum Mix

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

Asphalt Plant Limitations - Drum Mix

Maximum Hourly Asphalt Production =	260	ton/hr									
Annual Asphalt Production Limitation =	600,000	ton/yr									
Blast Furnace Slag Usage Limitation =	0	ton/yr	1.50	% sulfur							
Steel Slag Usage Limitation =	0		0.66	% sulfur							
Natural Gas Limitation =	1,032.23	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	0.50	% sulfur							
Residual (No. 4 or No. 5 or No. 6) Fuel Oil Limitation =	2,437,403	gal/yr, and	0.50	% sulfur							
Propane Limitation =	0	gal/yr, and	0.20	gr/100 ft3 sulfur							
Butane Limitation =	0	gal/yr, and	0.22	gr/100 ft3 sulfur							
Used/Waste Oil Limitation =	0	gal/yr, and	1.00	% sulfur	0.50	% ash	0.200	% chlorine,	0.010	% lead	
Diesel Fuel Limitation - Generator < 600 HP =	0	gal/yr, and									
Diesel Fuel Limitation - Generator > 600 HP =	0	gal/yr	0.50	% sulfur							
PM Dryer/Mixer Limitation =	0.713	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									
Blast Furnace Slag SO2 Dryer/Mixer Limitation =	0.740	lb/ton of slag processed									
Steel Slag SO2 Dryer/Mixer Limitation =	0.0014	lb/ton of slag processed									
Cold Mix Asphalt VOC Usage Limitation =	0.0	tons/yr									
HCl Limitation =	13.2	lb/kgal									

Limited/Controlled Emissions

Process Description	Limited/Controlled Potential Emissions (tons/year)									
	Criteria Pollutants						Greenhouse Gas Pollutants	Hazardous Air Pollutants		
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	CO ₂ e	Total HAPs	Worst Case HAP
Ducted Emissions										
Dryer Fuel Combustion (worst case)	9.52	11.35	11.35	95.67	98.06	2.84	43.35	62,396.08	1.16	0.93 (hydrogen chloride)
Dryer/Mixer (Process)	213.79	88.06	93.92	17.40	16.50	9.60	39.00	9,976	3.20	0.93 (formaldehyde)
Dryer/Mixer Slag Processing	0	0	0	0.00	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	1,060.64	0.00	0.003 (hexane)
Diesel-Fired Generator < 600 HP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000 (formaldehyde)
Diesel-Fired Generator > 600 HP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000 (benzene)
Worst Case Emissions*	213.88	88.22	94.07	99.00	99.00	9.61	43.59	63,456.72	3.20	0.93 (hydrogen chloride)
Fugitive Emissions										
Asphalt Load-Out, Silo Filling, On-Site Yard	0.33	0.33	0.33	0	0	5.14	0.86	0	0.09	0.03 (formaldehyde)
Material Storage Piles	1.19	0.41	0.41	0	0	0	0	0	0	0
Material Processing and Handling	1.94	0.92	0.14	0	0	0	0	0	0	0
Material Crushing, Screening, and Conveying	9.52	3.48	3.48	0	0	0	0	0	0	0
Unpaved and Paved Roads (worst case)	22.14	5.64	0.56	0	0	0	0	0	0	0
Cold Mix Asphalt Production	0	0	0	0	0	0.00	0	0	0.00	0.00 (xylenes)
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0.00	0	0	0.00	0.00 (xylenes)
Volatile Organic Liquid Storage Vessels	0	0	0	0	0	negl	0	0	negl	negl
Total Fugitive Emissions	35.12	10.78	4.93	0	0	5.14	0.86	0.00	0.09	0.00 (xylenes)
Totals Limited/Controlled Emissions	249.00	99.00	99.00	99.00	99.00	14.75	44.45	63,456.72	3.29	0.93 (xylenes)

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 + Diesel-Fired Generator < 600 HP + Diesel-Fired Generator > 600 HP

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, Indiana 47172
 Permit Number: F019-31391-03321
 Reviewer: Jack Harmon

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 =	1,032.23	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
0.50	% sulfur
0.50	% sulfur
0.20	gr/100 ft3 sulfur
0.22	gr/100 ft3 sulfur
1.00	% sulfur

0.50	% ash
0.200	% chlorine
0.010	% lead

Limited Emissions

Criteria Pollutant	Emission Factor (units)							Limited Potential to Emit (tons/yr)							Worse Case Fuel (tons/yr)
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil* (lb/kgal)	Residual (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)	
PM	1.9	2	7	7.815	0.5	0.6	32	0.98	2.69	0.00	9.52	0.000	0.000	0.00	9.52
PM10	7.6	3.3	8.3	9.315	0.5	0.6	25.5	3.92	4.45	0.00	11.35	0.000	0.000	0.00	11.35
SO2	0.6	71.0	75.0	78.5	0.020	0.020	147.0	0.31	95.67	0.00	95.67	0.000	0.000	0.00	95.67
NOx	190	24.0	47.0	47.0	13.0	15.0	19.0	98.06	32.34	0.00	57.28	0.00	0.00	0.00	98.06
VOC	5.5	0.20	0.20	0.28	1.00	1.10	1.0	2.84	0.27	0.00	0.34	0.00	0.00	0.00	2.84
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	43.35	6.74	0.00	6.09	0.00	0.00	0.00	43.35
Hazardous Air Pollutant															
HCl							13.2							0.00	0.00
Antimony			5.25E-03	5.25E-03			negl			0.00E+00	6.40E-03			negl	6.4E-03
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03			1.1E-01	1.0E-04	7.55E-04	0.00E+00	1.61E-03			0.00E+00	1.6E-03
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05			negl	6.2E-06	5.66E-04	0.00E+00	3.39E-05			negl	5.7E-04
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04			9.3E-03	5.7E-04	5.66E-04	0.00E+00	4.85E-04			0.00E+00	5.7E-04
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04			2.0E-02	7.2E-04	5.66E-04	0.00E+00	1.03E-03			0.00E+00	1.0E-03
Cobalt	8.4E-05		6.02E-03	6.02E-03			2.1E-04	4.3E-05		0.00E+00	7.34E-03			0.00E+00	7.3E-03
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03			0.55	2.6E-04	1.70E-03	0.00E+00	1.84E-03			0.0E+00	0.00
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03			6.8E-02	2.0E-04	1.13E-03	0.00E+00	3.66E-03			0.00E+00	0.00
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04				1.3E-04	5.66E-04	0.00E+00	1.38E-04				5.7E-04
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02			1.1E-02	1.1E-03	5.66E-04	0.00E+00	1.03E-01			0.00E+00	0.103
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04			negl	1.2E-05	2.83E-03	0.00E+00	8.32E-04			negl	2.8E-03
1,1,1-Trichloroethane			2.36E-04	2.36E-04						0.00E+00	2.88E-04				2.9E-04
1,3-Butadiene															0.0E+00
Acetaldehyde															0.0E+00
Acrolein															0.0E+00
Benzene	2.1E-03		2.14E-04	2.14E-04				1.1E-03		0.00E+00	2.61E-04				1.1E-03
Bis(2-ethylhexyl)phthalate								2.2E-03						0.00E+00	0.0E+00
Dichlorobenzene	1.2E-03							8.0E-07	6.2E-04					0.00E+00	6.2E-04
Ethylbenzene			6.36E-05	6.36E-05						0.00E+00	7.75E-05				7.8E-05
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				3.9E-02	8.22E-02	0.00E+00	4.02E-02				0.082
Hexane	1.8E+00							0.93							0.929
Phenol							2.4E-03							0.00E+00	0.0E+00
Toluene	3.4E-03		6.20E-03	6.20E-03				1.8E-03		0.00E+00	7.56E-03				7.6E-03
Total PAH Haps	negl		1.13E-03	1.13E-03			3.9E-02	negl		0.00E+00	1.38E-03			0.00E+00	1.4E-03
Polycyclic Organic Matter		3.30E-03							4.45E-03						4.4E-03
Xylene			1.09E-04	1.09E-04						0.00E+00	1.33E-04				1.3E-04
Total HAPs								0.97	0.10	0.00	0.18	0	0	0.00	1.16

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 10/98), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5

*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)
- 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
Greenhouse Gas (CO₂e) Emissions from the
Dryer/Mixer Fuel Combustion with Maximum Capacity ≥ 100 MMBtu/hr**

**Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon**

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 =	1,032.23	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		0.50	% sulfur							
Residual (No. 5 or No. 6) Fuel Oil Limitation =	2,437.403	gal/yr, and		0.50	% sulfur							
Propane Limitation =	0	gal/yr, and		0.20	gr/100 ft ³ sulfur							
Butane Limitation =	0	gal/yr, and		0.22	gr/100 ft ³ sulfur							
Used/Waste Oil Limitation =	0	gal/yr, and		1.00	% sulfur		0.50	% ash	0.200	% chlorine,	0.010	% lead

Limited Emissions

CO ₂ e Fraction	Emission Factor (units)							Global Warming Potentials (GWP)		
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil (lb/kgal)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)	Name	Chemical Formula	Global warming potential
CO ₂	120,161.84	22,501.41	24,153.46	24,835.04	12,500.00	14,506.73	22,024.15	Carbon dioxide	CO ₂	1
CH ₄	2.49	0.91	0.97	1.00	0.60	0.67	0.89	Methane	CH ₄	21
N ₂ O	2.20	0.26	0.19	0.53	0.90	0.90	0.18	Nitrous oxide	N ₂ O	310

CO ₂ e Fraction	Limited Potential to Emit (tons/yr)						
	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)
CO ₂	62,017.06	30,319.25	0.00	30,266.51	0.00	0.00	0.00
CH ₄	1.29	1.23	0.00	1.22	0.00	0.00	0.00
N ₂ O	1.14	0.35	0.00	0.65	0.00	0.00	0.00
Total	62,019.49	30,320.83	0.00	30,268.37	0.00	0.00	0.00
CO ₂ e Equivalent Emissions (tons/yr)	62,396.08	30,453.68	0.00	30,492.33	0.00	0.00	0.00

CO₂e for Worst Case Fuel* (tons/yr)
62,396.08

Methodology

Fuel Limitations from TSD Appendix A.2, page 1 of 15.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Sources of Emission Factors for fuel combustion: (Note: To form a conservative estimate, the "worst case" emission factors have been used.)

Natural Gas: Emission Factors for CO₂ and CH₄ from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/MMCF. Emission Factor for N₂O from AP-42 Chapter No. 2, No. 4, and Residual (No. 5 or No. 6) Fuel Emission Factors for CO₂ and CH₄ from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal. Emission Factor for N₂O from AP-42 Chapter 1.3 Oil: (dated 5/10), Table 1.3-8

Propane and Butane: Emission Factors for CO₂ and CH₄ from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal. Emission Factor for N₂O from AP-42 Chapter 1.5 (dated 7/08), Table 1.5-1

Waste Oil: Emission Factors for CO₂, CH₄, and N₂O from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal.

Emission Factor (EF) Conversions

Natural Gas: EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of Natural Gas (MMBtu/scf) * Conversion Factor (1,000,000 scf/MMCF)]

Fuel Oils: EF (lb/kgal) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of the Fuel Oil (MMBtu/gal) * Conversion Factor (1000 gal/kgal)]

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)

Limited CO₂e Emissions (tons/yr) = CO₂ Potential Emission of "worst case" fuel (ton/yr) x CO₂ GWP (1) + CH₄ Potential Emission of "worst case" fuel (ton/yr) x CH₄ GWP (21) + N₂O Potential Emission of "worst case" fuel (ton/yr) x N₂O GWP (310).

Abbreviations

CH₄ = Methane

CO₂ = Carbon Dioxide

N₂O = Nitrogen Dioxide

PTE = Potential to Emit

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

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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 =	0.713	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*	0.713	0.713	0.713	213.8	213.8	213.8	213.8
PM10*	0.294	0.294	0.294	88.1	88.1	88.1	88.1
PM2.5*	0.313	0.313	0.313	93.9	93.9	93.9	93.9
SO2**	0.003	0.011	0.058	1.0	3.3	17.4	17.4
NOx**	0.026	0.055	0.055	7.8	16.5	16.5	16.5
VOC**	0.032	0.032	0.032	9.6	9.6	9.6	9.6
CO***	0.130	0.130	0.130	39.0	39.0	39.0	39.0
Hazardous Air Pollutant							
HCl			2.10E-04			0.06	0.06
Antimony	1.80E-07	1.80E-07	1.80E-07	5.40E-05	5.40E-05	5.40E-05	5.40E-05
Arsenic	5.60E-07	5.60E-07	5.60E-07	1.68E-04	1.68E-04	1.68E-04	1.68E-04
Beryllium	negl	negl	negl	negl	negl	negl	0.00E+00
Cadmium	4.10E-07	4.10E-07	4.10E-07	1.23E-04	1.23E-04	1.23E-04	1.23E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	1.65E-03	1.65E-03	1.65E-03	1.65E-03
Cobalt	2.60E-08	2.60E-08	2.60E-08	7.80E-06	7.80E-06	7.80E-06	7.80E-06
Lead	6.20E-07	1.50E-05	1.50E-05	1.86E-04	4.50E-03	4.50E-03	4.50E-03
Manganese	7.70E-06	7.70E-06	7.70E-06	2.31E-03	2.31E-03	2.31E-03	2.31E-03
Mercury	2.40E-07	2.60E-06	2.60E-06	7.20E-05	7.80E-04	7.80E-04	7.80E-04
Nickel	6.30E-05	6.30E-05	6.30E-05	1.89E-02	1.89E-02	1.89E-02	1.89E-02
Selenium	3.50E-07	3.50E-07	3.50E-07	1.05E-04	1.05E-04	1.05E-04	1.05E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	1.20E-02	1.20E-02	1.20E-02	1.20E-02
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	0.12	0.12	0.12	0.12
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.07	0.07	0.07	0.07
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	0.93	0.93	0.93	0.93
Hexane	9.20E-04	9.20E-04	9.20E-04	0.28	0.28	0.28	0.28
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.01	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	0.05	0.87	0.87	0.87
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.06	0.26	0.26	0.26
Xylene	2.00E-04	2.00E-04	2.00E-04	0.06	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 HAP = Hazardous Air Pollutant
 HCl = Hydrogen Chloride PAH = Polyaromatic Hydrocarbon
 SO2 = Sulfur Dioxide

**Appendix A.2: Limited Emissions Summary
Greenhouse Gas (CO₂e) Emissions from the
Drum-Mix Plant (Dryer/Mixer) Process Emissions**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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

Criteria Pollutant	Emission Factor (lb/ton) Drum-Mix Plant (dryer/mixer)			Global Warming Potentials (GWP)	Limited Potential to Emit (tons/yr) Drum-Mix Plant (dryer/mixer)			CO ₂ e for Worst Case Fuel (tons/yr)
	Natural Gas	No. 2 Fuel Oil	Waste Oil		Natural Gas	No. 2 Fuel Oil	Waste Oil	
CO ₂	33	33	33	1	9,900.00	9,900.00	9,900.00	9,975.60
CH ₄	0.0120	0.0120	0.0120	21	3.60	3.60	3.60	
N ₂ O				310	0	0	0	
Total					9,903.60	9,903.60	9,903.60	
CO ₂ e Equivalent Emissions (tons/yr)					9,975.60	9,975.60	9,975.60	

Methodology

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-7 and 11.1-8

There are no emission factors for N₂O available in either the 40 CFR 98, Subpart C or AP-42 Chapter 11.1. Therefore, it is assumed that there are no N₂O emission anticipated for this process.

Limited/Controlled Potential to Emit (tons/yr) = (Annual Asphalt Production Limitation (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)

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.

Limited CO₂e Emissions (tons/yr) = CO₂ Potential Emission of "worst case" fuel (ton/yr) x CO₂ GWP (1) + CH₄ Potential Emission of "worst case" fuel (ton/yr) x CH₄ GWP (21) + N₂O Potential Emission of "worst case" fuel (ton/yr) x N₂O GWP (310).

Abbreviations

CO₂ = Carbon Dioxide

CH₄ = Methane

N₂O = Nitrogen Dioxide

PTE = Potential to Emit

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

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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

Limited Blast Furnace Slag Usage = ton/yr % sulfur
 Limited Annual Steel Slag Usage = ton/yr % sulfur

Type of Slag	SO2 Emission Factor (lb/ton)*	Limited Potential to Emit SO2 (tons/yr)
Blast Furnace Slag	0.7400	0.0
Steel Slag	0.0014	0.00

Methodology

* Testing results for blast furnace 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 blast furnace 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%.

** Testing results for steel slag, obtained June 2009 from E & B Paving, Inc. facility located in Huntington, IN. The testing results showed a steel slag emission factor of 0.0007 lb/ton from slag containing 0.33% sulfur content.

Limited Potential to Emit SO2 from Slag (tons/yr) = [(Limited Slag Usage (ton/yr)) * [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 Location: 4700 Utica-Sellersburg Road, Sellersburg, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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)		
	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)	Worse Case Fuel (tons/yr)
PM	1.9	2.0	0.000	0.094	0.09
PM10/PM2.5	7.6	3.3	0.000	0.155	0.15
SO2	0.6	71.0	0.000	3.332	3.33
NOx	100	20.0	0.000	0.939	0.94
VOC	5.5	0.20	0.000	0.009	0.01
CO	84	5.0	0.000	0.235	0.23
Hazardous Air Pollutant					
Arsenic	2.0E-04	5.6E-04	0.0E+00	2.63E-05	2.6E-05
Beryllium	1.2E-05	4.2E-04	0.0E+00	1.97E-05	2.0E-05
Cadmium	1.1E-03	4.2E-04	0.0E+00	1.97E-05	2.0E-05
Chromium	1.4E-03	4.2E-04	0.0E+00	1.97E-05	2.0E-05
Cobalt	8.4E-05		0.0E+00		0.0E+00
Lead	5.0E-04	1.3E-03	0.0E+00	5.91E-05	5.9E-05
Manganese	3.8E-04	8.4E-04	0.0E+00	3.94E-05	3.9E-05
Mercury	2.6E-04	4.2E-04	0.0E+00	1.97E-05	2.0E-05
Nickel	2.1E-03	4.2E-04	0.0E+00	1.97E-05	2.0E-05
Selenium	2.4E-05	2.1E-03	0.0E+00	9.86E-05	9.9E-05
Benzene	2.1E-03		0.0E+00		0.0E+00
Dichlorobenzene	1.2E-03		0.0E+00		0.0E+00
Ethylbenzene					0
Formaldehyde	7.5E-02	6.10E-02	0.0E+00	2.86E-03	0.003
Hexane	1.8E+00		0.00		0.000
Phenol					0
Toluene	3.4E-03		0.0E+00		0.0E+00
Total PAH Haps	negl		negl		0
Polycyclic Organic Matter		3.30E-03		1.55E-04	1.5E-04
Total HAPs =			0.0E+00	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 1.3-11

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
Greenhouse Gas (CO₂e) Emissions from
Hot Oil Heater Fuel Combustion with Maximum Capacity < 100 MMBtu/hr**

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

Maximum Hot Oil Heater Fuel Input Rate = 1.50 MMBtu/hr
 Natural Gas Usage = 0.00 MMCF/yr
 No. 2 Fuel Oil Usage = 93,857.14 gal/yr, 0.50 % sulfur

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units)		Global Warming Potentials (GWP)	to Emit (tons/yr)	
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)		Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)
CO ₂	120,161.84	22,501.41	1	0.00	1,055.96
CH ₄	2.49	0.91	21	0.000	4.28E-02
N ₂ O	2.20	0.26	310	0.000	1.22E-02
Total				0.00	1,056.01

Worse Case CO₂e Emissions (tons/yr)
1,060.64

CO ₂ e Equivalent Emissions (tons/yr)	0.00	1,060.64
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Methodology

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Sources of Emission Factors for fuel combustion: (Note: To form a conservative estimate, the "worst case" emission factors have been used.)

Natural Gas : Emission Factors for CO₂ and CH₄ from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from

No. 2 Fuel Oil: Emission Factors for CO₂ and CH₄ from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from

Emission Factor (EF) Conversions

Natural Gas: EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of Natural Gas (MMBtu/scf) * Conversion Factor (1,000,000 scf/MMCF)]

Fuel Oils: EF (lb/kgal) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of the Fuel Oil (MMBtu/gal) * Conversion Factor (1000 gal/kgal)]

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]

Unlimited Potential to Emit CO₂e (tons/yr) = Unlimited Potential to Emit CO₂ of "worst case" fuel (ton/yr) x CO₂ GWP (1) + Unlimited Potential to Emit CH₄ of "worst case" fuel (ton/yr) x CH₄ GWP (21) + Unlimited Potential to Emit N₂O of "worst case" fuel (ton/yr) x N₂O GWP (310).

Abbreviations

CH₄ = Methane

N₂O = Nitrogen Dioxide

CO₂ = Carbon Dioxide

PTE = Potential to Emit

Appendix A.2: Limited Emissions Summary
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

Output Horsepower Rating (hp)	0.0
Limited Hours Operated per Year	2500
Limited Throughput (hp-hr/yr)	0
Limited Diesel Fuel Usage (gal/yr)	0

	Pollutant						
	PM ²	PM10 ²	direct PM2.5 ²	SO ₂	NO _x	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Emission Factor in lb/kgal ¹	43.07	43.07	43.07	40.13	606.85	49.22	130.77
Limited Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

¹The AP-42 Chapter 3.3-1 emission factors in lb/hp-hr were converted to lb/kgal emission factors using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

¹Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) * 1/7,000 (hp-hr/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

²PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							Total PAH HAPs ³
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	
Emission Factor in lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	3.91E-05	1.18E-03	7.67E-04	9.25E-05	1.68E-04
Emission Factor in lb/kgal ⁴	1.28E-01	5.60E-02	3.91E-02	5.36E-03	1.62E-01	1.05E-01	1.27E-02	2.30E-02
Limited Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

³PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

⁴The AP-42 Chapter 3.3-1 emission factors in lb/MMBtu were converted to lb/kgal emission factors using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁴Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) * 1/10⁶ (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Limited Emission of Total HAPs (tons/yr)	0.00E+00
Limited Emission of Worst Case HAPs (tons/yr)	0.00E+00

Green House Gas Emissions (GHG)

	Pollutant		
	CO ₂ ⁵	CH ₄ ⁶	N ₂ O ⁶
Emission Factor in lb/hp-hr	1.15	NA	NA
Emission Factor in kg/MMBtu	NA	0.003	0.0006
Emission Factor in lb/kgal	22,512.07	0.91	0.18
Limited Emission in tons/yr	0.00	0.000	0.000

⁵The AP-42 Chapter 3.3-1 emission factor in lb/hp-hr was converted to lb/kgal emission factor using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁵Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) * 1/7,000 (hp-hr/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

⁶The 40 CFR 98 Subpart C emission factors in kg/MMBtu were converted to lb/kgal emission factors using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁶Emission factor (lb/kgal) = 40 CFR 98 EF (kg/MMBtu) * 2.20462 (lb/kg) * 1/10⁶ (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Summed Limited Emissions in tons/yr	0.00
CO₂e Total in tons/yr	0.00

Methodology

Limited Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Limited Hours Operated per Year]

Limited Diesel Fuel Usage (gal/yr) = Limited Throughput (hp-hr/yr) * 7000 (Btu/hp-hr) * 1/19300 (lb/Btu) * 1/7.1 (gal/lb)

Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2 and have been converted to lb/kgal

CH₄ and N₂O Emission Factor from 40 CFR 98 Subpart C Table C-2 and have been converted to lb/kgal

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Limited Emissions (tons/yr) = [Limited Diesel Fuel Usage (gal/yr) * Emission Factor (lb/kgal)] / (1,000 gal/kgal) / (2,000 lb/ton)

CO₂e (tons/yr) = CO₂ Potential Emission ton/yr x CO₂ GWP (1) + CH₄ Potential Emission ton/yr x CH₄ GWP (21) + N₂O Potential Emission ton/yr x N₂O GWP (310).

Appendix A.2: Limited Emissions Summary
Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

Output Horsepower Rating (hp)	0.0	Sulfur Content (S) of Fuel (% by weight)	0.50
Limited Hours Operated per Year	2500		
Limited Throughput (hp-hr/yr)	0		
Limited Diesel Fuel Usage (gal/yr)	0		

	Pollutant						
	PM	PM10 ²	direct PM2.5 ²	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04			4.05E-03 (.00809S)	2.40E-02	7.05E-04	5.50E-03
Emission Factor in lb/MMBtu		0.0573	0.0573				
Emission Factor in lb/kgal ¹	13.70	7.85	7.85	79.18	469.82	13.80	107.67
Limited Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

¹ The AP-42 Chapter 3.4-1 emission factors in lb/hp-hr were converted to lb/kgal emission factors using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

¹ Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) * 1/7,000 (hp-hr/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

² Emission factors in lb/kgal were converted from the AP-42 Chapter 3.4-1 emission factors in lb/MMBtu using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

² Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) * 1/10⁶ (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Hazardous Air Pollutants (HAPs)

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs ³
Emission Factor in lb/MMBtu	7.76E-04	2.81E-04	1.93E-04	7.89E-05	2.52E-05	7.88E-06	2.12E-04
Emission Factor in lb/kgal ⁴	1.06E-01	3.85E-02	2.64E-02	1.08E-02	3.45E-03	1.08E-03	2.91E-02
Limited Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

³PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

⁴Emission factors in lb/kgal were converted from the AP-42 Chapter 3.4-1 emission factors in lb/MMBtu using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁴Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) * 1/10⁶ (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Limited Emission of Total HAPs (tons/yr)	0.00E+00
Limited Emission of Worst Case HAPs (tons/yr)	0.00E+00

Green House Gas Emissions (GHG)

	Pollutant		
	CO2 ⁵	CH4 ^{5,6}	N2O ⁷
Emission Factor in lb/hp-hr	1.16	6.35E-05	NA
Emission Factor in kg/MMBtu	NA	NA	0.0006
Emission Factor in lb/kgal	22,707.83	1.24	0.18
Limited Emission in tons/yr	0.00	0.00	0.00

⁵ The AP-42 Chapter 3.4-1 emission factors in lb/hp-hr were converted to lb/kgal emission factors using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁵Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) * 1/7,000 (hp-hr/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

⁶According to AP-42, Table 3.4-1, TOC (as CH4) is 9% methane by weight. As a result, the lb/hp-hr emission factor for TOC (as CH4) in AP-42 has been multiplied by 9% to determine the portion that is emitted as methane.

⁷The 40 CFR 98 Subpart C emission factors in kg/MMBtu were converted to lb/kgal emission factors using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

⁷Emission factor (lb/kgal) = 40 CFR 98 EF (kg/MMBtu) * 2.20462 (lb/kg) * 1/10⁶ (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Summed Potential Emissions in tons/yr	0.00
CO2e Total in tons/yr	0.00

Methodology

Limited Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Limited Hours Operated per Year]

Limited Diesel Fuel Usage (gal/yr) = Limited Throughput (hp-hr/yr) * 7000 (Btu/hp-hr) * 1/19300 (lb/Btu) * 1/7.1 (gal/lb)

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4 and have been converted to lb/kgal.

N2O Emission Factor from 40 CFR 98 Subpart C Table C-2 and have been converted to lb/kgal.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Limited Emissions (tons/yr) = [Limited Diesel Fuel Usage (gal/yr) x Emission Factor (lb/kgal)] / (1,000 ga/kgal) / (2,000 lb/ton)

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O

Potential Emission ton/yr x N2O GWP (310).

**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, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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

TOC = Total Organic Compounds

CO = Carbon Monoxide

PM = Particulate

Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

HAP = Hazardous Air Pollutant

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, Indiana 47172
 Permit Number: F019-31391-03321
 Reviewer: Jack Harmon

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)
Limited Emissions

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, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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.

$$E_f = 1.7 \cdot (s/1.5)^3 \cdot (365-p) / 235 \cdot (f/15)$$

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-Mfd.	2.6	3.01	0.10	0.055	0.019
Limestone	1.6	1.85	2.75	0.929	0.325
RAP	1	1.16	0.10	0.021	0.007
Shingles	2	2.31	0.10	0.042	0.015
Totals				1.19	0.41

Methodology

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

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 (acres) provided by the source.

Abbreviations

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

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, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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

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 (weight %)]
 Limited Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
 Raw materials may include limestone, sand, recycled asphalt pavement (RAP), gravel, slag, and other additives
 *Worst case annual mean wind speed (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 (weight %)]
 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
 PM10 = Particulate Matter (<10 um)
 PM2.5 = Particulate Matter (<2.5 um)
 PTE = Potential to Emit

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

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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 %)	0.0%	
Maximum Material Handling Throughput	600,000	tons/yr
Maximum Asphalt Cement/Binder Throughput	0	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	2.7E+04	1.1E+06	300	0.057	1521.9
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.0	2.7E+04	4.6E+05	300	0.057	1521.9
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	0.0E+00	0.0E+00	300	0.057	0.0
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	0.0E+00	0.0E+00	300	0.057	0.0
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	2.7E+06	300	0.057	8116.9
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	1.4E+05	2.1E+06	300	0.057	8116.9
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					3.9E+05	7.9E+06			2.2E+04

Average Vehicle Weight Per Trip	20.2	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 =	20.2	20.2	20.2	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	6.08	1.55	0.16	lb/mile
Mitigated Emission Factor, E_{ext}	4.00	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)	4.63	1.18	0.12	3.04	0.78	0.08	1.52	0.39	0.04
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	4.63	1.18	0.12	3.04	0.78	0.08	1.52	0.39	0.04
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.000	0.000	0.00	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.000	0.000	0.00	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.049	0.013	1.3E-03	0.032	0.008	8.2E-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	8.2E-04	0.016	0.004	4.1E-04
Aggregate/RAP Loader Full	Front-end loader (3 CY)	24.68	6.29	0.63	16.23	4.14	0.41	8.11	2.07	0.21
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	24.68	6.29	0.63	16.23	4.14	0.41	8.11	2.07	0.21
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	4.32	1.10	0.11	2.84	0.72	0.07	1.42	0.36	0.04
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	4.32	1.10	0.11	2.84	0.72	0.07	1.42	0.36	0.04
Totals		67.36	17.17	1.72	44.29	11.29	1.13	22.14	5.64	0.56

Methodology

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

Abbreviations

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

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

Company Name: Asphalt Supply Company, Inc.
Source Address: 4700 Utica-Sellersburg Road, Sellersburg, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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 %)	0.0%	
Maximum Material Handling Throughput	600,000	tons/yr
Maximum Asphalt Cement/Binder Throughput	0	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	2.7E+04	1.1E+06	300	0.057	1521.9
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.00	2.7E+04	4.6E+05	300	0.057	1521.9
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.00	0.0E+00	0.0E+00	300	0.057	0.0
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	0.0E+00	0.0E+00	300	0.057	0.0
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	2.7E+06	300	0.057	8116.9
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.00	1.4E+05	2.1E+06	300	0.057	8116.9
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						3.9E+05	7.9E+06		2.2E+04

Average Vehicle Weight Per Trip = 20.2 tons/trip
 Average Miles Per Trip = 0.057 miles/trip

Unmitigated Emission Factor, Ef = [k * (SL)^{0.91} * (W)^{1.02}] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
W =	20.2	20.2	20.2	tons = average vehicle weight (provided by source)
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 =	0.15	0.03	0.01	lb/mile
Mitigated Emission Factor, Eext =	0.14	0.03	0.01	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)	0.11	0.02	0.01	0.10	0.02	0.01	0.05	0.01	0.00
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	0.11	0.02	0.01	0.10	0.02	0.01	0.05	0.01	0.00
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00	0.000	0.0E+00	0.0E+00
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00	0.000	0.0E+00	0.0E+00
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	1.2E-03	2.4E-04	5.9E-05	1.1E-03	2.2E-04	5.4E-05	5.5E-04	1.1E-04	2.7E-05
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	1.2E-03	2.4E-04	5.9E-05	1.1E-03	2.2E-04	5.4E-05	5.5E-04	1.1E-04	2.7E-05
Aggregate/RAP Loader Full	Front-end loader (3 CY)	0.60	0.12	0.03	0.55	0.11	0.03	0.27	0.05	0.01
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	0.60	0.12	0.03	0.55	0.11	0.03	0.27	0.05	0.01
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	0.11	0.02	0.01	0.10	0.02	0.00	0.05	0.01	0.00
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	0.11	0.02	0.01	0.10	0.02	0.00	0.05	0.01	0.00
Totals		1.64	0.33	0.08	1.50	0.30	0.07	0.75	0.15	0.04

Methodology

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

Abbreviations

PM = Particulate Matter PM10 = Particulate Matter (<10 um) PM2.5 = Particulate Matter (<2.5 um) PM2.5 = PM10 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, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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

Limited VOC Emissions from the Sum of the Liquid Binders = 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	0.0	0.000
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	0.0	0.0	0.000
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	0.0	0.0	0.000
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	0.0	0.0	0.000
Other asphalt with solvent binder	25.9%	2.5%	0.0	0.0	0.0
Worst Case Limited PTE of VOC =				0.0	

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) =	0.00
Limited PTE of Single HAP (tons/yr) =	0.00 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

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.

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, Indiana 47172
Permit Number: F019-31391-03321
Reviewer: Jack Harmon

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:

$$\begin{aligned} \text{Gasoline Throughput} &= 0 \text{ gallons/day} \\ &= 0.0 \text{ kgal/yr} \end{aligned}$$

Volatile Organic Compounds

Emission Source	Emission Factor (lb/kgal of throughput)	PTE of VOC (tons/yr)*
Filling storage tank (balanced submerged filling)	0.3	0.00
Tank breathing and emptying	1.0	0.00
Vehicle refueling (displaced losses - controlled)	1.1	0.00
Spillage	0.7	0.00
Total		0.00

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) =	0.00	
Limited PTE of Single HAP (tons/yr) =	0.00	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.

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 Co., Inc.
4700 Utica-Sellersburg Road
Sellersburg, IN 47172

DATE: June 5, 2012

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

SUBJECT: Final Decision
Significant Permit Revision
019-31391-03321

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:
Jennifer Triplett – Environmental Compliance Source
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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June 5, 2012

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 Company, Inc.
Permit Number: 019-31391-03321

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

IDEM Staff	GHOTOPP 6/5/2012 Asphalt Supply Company, Inc 019-31391-03321 Final		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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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)										
9		Clark County Health Department 1320 Duncan Avenue Jeffersonville IN 47130-3723 (Health Department)										
10		Jennifer Triplett Environmental Compliance Source PO Box 6849 New Albany IN 47151 (Consultant)										
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