NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

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

for E & B Paving, Inc. in Madison County

FESOP Renewal No.: F095-41346-03257

The Indiana Department of Environmental Management (IDEM) has received an application from E & B Paving, Inc. located at 5002 S. State Road 67 for a renewal of its FESOP issued on January 15, 2010. If approved by IDEM’s Office of Air Quality (OAQ), this proposed renewal would allow E & B Paving, Inc. to continue to operate its existing source.

This draft permit does not contain any new equipment that would emit air pollutants, and no conditions from previously issued permits/approvals have been changed.

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

Pendleton Community Public Library
595 Water St.
Pendleton, Indiana 46064

A copy of the preliminary findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

A copy of the preliminary findings is also available via IDEM’s Virtual File Cabinet (VFC.) Please go to: http://www.in.gov/idem/ and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.

How can you participate in this process?

The date that this notice is posted on IDEM’s website (https://www.in.gov/idem/5474.htm) marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the air pollution impact of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM’s mailing list to receive notice of future action related to this permit. If you
do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number F095-41346-03257 in all correspondence.

Comments should be sent to:

William Altman  
IDEM, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(800) 451-6027, ask for William Altman or (317) 233-9664  
Or dial directly: (317) 233-9664  
Fax: (317) 232-6749 attn: William Altman  
E-mail: WAltman@idem.in.gov

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

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: http://www.in.gov/idem/airquality/2356.htm; and the Citizens’ Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM’s response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM’s decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact William Altman of my staff at the above address.

Machurima D. Moulik, Ph.D., Section Chief  
Permits Branch  
Office of Air Quality
E & B Paving, Inc.
5002 S. State Road 67
Anderson, Indiana 46013

(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.
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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: 5002 S. State Road 67, Anderson, Indiana 46013
- General Source Phone Number: (765) 643-5358
- SIC Code: 2951 (Asphalt Paving Mixtures and Blocks)
- County Location: Madison
- Source Location Status: Attainment for all criteria pollutants
- Source Status: Federally Enforceable State Operating Permit Program, Minor Source, under PSD Rules, Minor Source, Section 112 of the Clean Air Act, Not 1 of 28 Source Categories

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

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

(a) One (1) hot mix asphalt drum mixer/dryer, identified as EU-01, constructed around 1996, capable of processing a maximum of 350 tons per hour of raw material, equipped with one (1) 120 million British thermal units (MMBtu) per hour natural gas fired burner, using #2 distillate fuel oil, Refinery Blend fuel oil, and Waste oil as backup fuels, processing slag and factory second shingles in the aggregate mix; equipped with one (1) baghouse for particulate control and exhausting through one (1) stack, identified as stack SV-1. This source produces cold mix asphalt. No grinding of shingles occurs at this source.

Under 40 CFR 60, Subpart I, this hot mix asphalt plant is considered an affected facility.

(b) Feeding, conveying and loading operations, constructed around 1996, consisting of the following:

1. Three (3) asphalt storage silos;
2. Three (3) storage piles, including:
   i. Two (2) reclaimed asphalt pavement (RAP) piles, total capacity 20,000 tons;
   ii. One (1) recycled shingles pile, total capacity 3,000 tons;
3. Nine (9) feed bins, including:
   i. Eight (8) cold feed bins for coarse to fine aggregate;
   ii. One (1) feed bin for recycled asphalt pavement and recycled shingles;
4. Five (5) conveyors including:
(i) Three (3) transporting coarse to fine aggregate to the drum mixer;

(ii) One (1) transporting recycled asphalt pavement and recycled shingles to the drum mixer;

(iii) One (1) drag slat conveyor transporting hot mixed asphalt to the asphalt storage silos;

(c) One (1) 2.353 million British Thermal Units (MMBtu) per hour hot oil heater firing natural gas as the primary fuel and #2 distillate fuel oil as the backup fuel, constructed around 1996, and exhausting to stack SV-2;

(d) One (1) portable diesel-fuel fired crusher for processing RAP, identified as EU-2, approved in 2019 for construction, with a maximum capacity of 350 tons per hour, uncontrolled.

Under 40 CFR 60, subpart OOO, this portable diesel-fueled crusher for processing 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) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu/hr;

(b) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu/hr and firing fuel containing less than five-tenths (0.5) percent;

(c) A gasoline fuel transfer and dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day, such as filling of tanks, locomotives, automobiles, having storage capacity less than or equal to ten thousand five hundred (10,500) gallons;

Under 40 CFR 60, Subpart CCCCCC, the units comprising this operation are considered affected facilities.

(d) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to ten thousand five hundred (10,500) gallons, and dispensing less than or equal to two hundred thousand (230,000) gallons per month;

(e) Cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38°C (100°F) or;

(2) having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20°C (68°F); the use of which for all cleaners and solvents combined does not exceed one hundred forty-five (145) gallons per twelve (12) months;

(f) Vehicle travel on paved roads, unpaved roads, and parking lots.
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, F095-41346-03257, 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 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

(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 F095-41346-03257 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 2-6-5(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(42). 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 5
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)(1) and (c). 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)(1) and (c).

(b) Emission Trades [326 IAC 2-8-15(b)]
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(b).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]
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 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

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

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

(a) Pursuant to 326 IAC 2-8:

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

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

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

(b) 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 Stack Height [326 IAC 1-7]

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

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

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date; 

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
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.10 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).
Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

(a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:
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 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, 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).

C.13 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.
**Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

C.14 Emergency Reduction Plans [326 IAC 1-5-2][326 IAC 1-5-3]

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

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.15 Risk Management Plan [326 IAC 2-8-4][40 CFR 68]

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

C.16 Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]

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

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall 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).

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

(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, where applicable:

(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, where applicable:

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

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. 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.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.
SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:
(a) One (1) hot mix asphalt drum mixer/dryer, identified as EU-01, constructed around 1996, capable of processing a maximum of 350 tons per hour of raw material, equipped with one (1) 120 million British thermal units (MMBtu) per hour natural gas fired burner, using #2 distillate fuel oil, Refinery Blend fuel oil, and Waste oil as backup fuels, processing slag and factory second shingles in the aggregate mix; equipped with one (1) baghouse for particulate control and exhausting through one (1) stack, identified as stack SV-1. This source produces cold mix asphalt. No shingles are ground at this source.

Under 40 CFR 60, Subpart I, this hot mix asphalt plant is considered an affected facility.

(b) Feeding, conveying and loading operations, constructed around 1996, consisting of the following:

1. Three (3) asphalt storage silos;
2. Three (3) storage piles, including:
   (i) Two (2) reclaimed asphalt pavement (RAP) piles, total capacity 20,000 tons;
   (ii) One (1) recycled shingles pile, total capacity 3,000 tons;
3. Nine (9) feed bins, including:
   (i) Eight (8) cold feed bins for coarse to fine aggregate;
   (ii) One (1) feed bin for recycled asphalt pavement and recycled shingles;
4. Five (5) conveyors, including:
   (i) Three (3) transporting coarse to fine aggregate to the drum mixer;
   (ii) One (1) transporting recycled asphalt pavement and recycled shingles to the drum mixer;
   (iii) One (1) drag slat conveyor transporting hot mixed asphalt to the asphalt storage silos;

(c) One (1) 2.353 million British Thermal Units (MMBtu) per hour hot oil heater firing natural gas as the primary fuel and #2 distillate fuel oil as the backup fuel, constructed around 1996, and exhausting to stack SV-2;

(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 Particulate Matter (PM) [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable;

(a) the amount of asphalt processed shall not exceed 738,066 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 0.203 pounds per ton of asphalt processed.

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

Note: The source has opted to limit source-wide potential to emit PM to less than 125 tons per twelve (12) consecutive month period. This would allow for the co-location of an additional asphalt plant to the same location, as long as the co-located plant has limited potential to emit equal to or less than those that are issued within this permit.

D.1.2 Dryer and Mixer FESOP Limits [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 amount of asphalt processed shall not exceed 738,066 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The PM10 emissions from the dryer/mixer shall not exceed 0.093 pounds per ton of asphalt processed.

(c) The PM2.5 emissions from the dryer/mixer shall not exceed 0.117 pounds per ton of asphalt processed.

(d) The CO emissions from the dryer/mixer shall not exceed 0.13 pounds per ton of asphalt processed.

(e) The VOC emissions from the dryer/mixer shall not exceed 0.032 pounds per ton of asphalt processed.

(f) The SO2 emissions from the dryer/mixer shall not exceed 0.540 pounds per ton of Blast Furnace slag processed in the aggregate mix.

(g) Blast Furnace slag usage shall not exceed 73,800 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(h) The SO2 emissions from the dryer/mixer shall not exceed 0.0014 pounds per ton of Steel slag processed in the aggregate mix.

Compliance with these limitations, combined with the limited PTE from other emission units at this source, shall limit the source-wide total potential to emit PM10, PM2.5, CO, VOC, and SO2 to less than 100 tons per twelve (12) consecutive month period, and shall render 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) not applicable.

Note: The source has opted to limit source-wide potential to emit PM10, PM2.5, CO, VOC, and SO2 to less than 50 tons per twelve (12) consecutive month period. This would allow for the co-location of an additional asphalt plant to the same location, as long as the co-located plant has limited potentials to emit equal to or less than those that are issued within this permit.

D.1.3 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4][326 IAC 2-2][326 IAC 2-4.1]

Pursuant to 326 IAC 2-8-4, the Permittee shall comply with the following fuel and feedstock limitations for fuels combusted in the dryer/mixer burner and all other combustion equipment and
feedstock used in the dryer/mixer:

(a) The HCl emissions shall not exceed 13.2 pounds of HCl per 1,000 gallons of waste oil burned.

(b) The waste oil combusted shall not contain more than 0.50% ash, 0.20% chlorine, and 0.01% Lead.

(c) The Permittee shall use only factory second shingles, containing no asbestos, 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 10 tons per twelve (12) consecutive month period, and any combination of HAPs to less than 25 tons per twelve (12) consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (PSD), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable.

Note: The source has opted to limit source-wide potential to emit any single hazardous air to less than 5 tons per twelve (12) consecutive month period, and any combination of HAPs to less than 12.5 tons per twelve (12) consecutive month period. This would allow for the co-location of an additional asphalt plant to the same location, as long as the co-located plant has limited potential to emit equal to or less than those that are issued within this permit.

D.1.4 Fuel and Slag 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 fuel limitations combusted in the dryer/mixer burner and all other combustion equipment:

(a) **Sulfur Content Specifications**

(1) The sulfur content of No.2 fuel oil shall not exceed 0.50 percent by weight.

(2) The sulfur content of the refinery blend fuel oil shall not exceed 1.00 percent by weight.

(3) The sulfur content of the waste fuel oil shall not exceed 1.00 percent by weight.

(4) The sulfur content of the Blast Furnace slag shall not exceed 1.10 percent by weight, with compliance demonstrated on a calendar month average.

(5) The sulfur content of the Steel slag shall not exceed 0.66 percent by weight.

(b) **Single Fuel Usage and Slag Usage Limitations:**

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

(1) Natural gas usage shall not exceed 509.78 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month;

(2) No. 2 fuel oil usage shall not exceed 697,295 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month;

(3) Refinery blend fuel oil usage shall not exceed 315,337 gallons per twelve (12)
consecutive month period, with compliance determined at the end of each month; and

(4) Waste oil usage shall not exceed 336,789 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(5) Blast Furnace slag usage shall not exceed 73,800 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) Multiple Fuel Usage and Slag Usage Limitation:

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

(1) NOx emissions from the dryer/mixer and all other combustion equipment shall be less than 49.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) SO2 emissions from the dryer/mixer and all other combustion equipment shall be less than 49.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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 NOx and SO2 to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (PSD), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable.

Note: The source has opted to limit source-wide potential to emit NOx to less than 50 tons per twelve (12) consecutive month period. This would allow for the co-location of an additional asphalt plant to the same location, as long as the co-located plant has limited potential to emit equal to or less than those that are issued within this permit.

D.1.5 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 shall not exceed 0.5 pounds per million Btu heat input when using distillate oil.

(b) The sulfur dioxide (SO2) emissions from the dryer/mixer burner shall not exceed 1.60 pounds per million Btu heat input when using residual oil.

(c) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

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

(a) The amount of asphalt processed shall not exceed 738,066 tons per twelve (12) consecutive month period

(b) The VOC emissions from the dryer/mixer shall not exceed 0.032 pounds per ton of asphalt processed.
Compliance with this limit shall limit the VOC PTE from the dryer/mixer to less than twenty-five (25) tons per 12 consecutive month period and shall render 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements [326 IAC 2-8-4(1)]

D.1.8 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), D.1.2(b), and D.1.2(c), the Permittee shall perform PM, PM10, and PM2.5 testing for the aggregate dryer/mixer utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. PM10 and PM2.5 includes filterable and condensable particulate matter. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) In order to demonstrate compliance with Conditions D.1.2(f) and D.1.4(a)(4), when using Blast Furnace slag, the Permittee shall perform SO2 testing for the aggregate dryer within one hundred eighty (180) days of initial use of Blast Furnace slag in the aggregate mix, utilizing methods as approved by the Commissioner. Testing shall only be performed if the company has not previously performed SO2 testing while using Blast Furnace slag in the aggregate mix at one of their other Indiana facilities. Testing shall be conducted in accordance with Section C- Performance Testing.

D.1.9 Particulate Control

(a) In order to comply with Conditions D.1.1(b), D.1.2(b), and D.1.2(c), the baghouse for the dryer/mixer shall be in operation and control emissions from the emission unit 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.1.10 Multiple Fuel Usage and Slag Limitation

(a) In order to comply with Condition D.1.4(c) when combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, in conjunction with the use of slag, the Permittee shall limit fuel usage in the dryer/mixer burner according to the following formulas:

(1) \[ NOx \text{ emissions from the dryer/mixer shall be less than } 49.9 \text{ tons per twelve (12) consecutive month period, with compliance determined at the end of each month.} \]

\[
N = \frac{G(E_G) + O(E_O) + R(E_R) + W(E_W)}{2,000 \text{ lbs/ton}}
\]

where:

\( N \) = tons of nitrogen oxide emissions for a 12-month consecutive period
\( G \) = million cubic feet of natural gas used in the last 12 months
\( O \) = gallons of No. 2 fuel oil used in last 12 months
R = gallons of Refinery Blend fuel oil used in last 12 months
W = gallons of Waste oil used for last 12 months
EG = 190 lb/million cubic feet of natural gas
EO = 24 lb/1000 gallons of No. 2 fuel oil
ER = 47 lb/1000 gallons of Refinery Blend fuel oil
EW = 19 lb/1000 gallons of Waste oil

(2) SO₂ emissions from the dryer/mixer shall be less than 49.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

\[
S = \frac{G(EG) + O(EO) + R(ER) + W(EW) + B(EB) + T(ET)}{2,000 \text{ lbs/ton}}
\]

where:
S = tons of sulfur dioxide emissions for a 12-month consecutive period
G = million cubic feet of natural gas used in the last 12 months
O = gallons of No. 2 fuel oil used in last 12 months
R = gallons of Refinery Blend fuel oil used in last 12 months
W = gallons of Waste oil used in last 12 months
B = tons of Blast Furnace slag used in last 12 months
T = tons of Steel slag used in last 12 months
EG = 0.60 lb/million cubic feet of natural gas
EO = 71.00 lb/1000 gallons of No. 2 fuel oil
ER = 157 lb/1000 gallons of Refinery Blend fuel oil
EW = 147 lb/1000 gallons of Waste oil
EB = 0.54 lb/ton of Blast Furnace slag used
ET = 0.0014 lb/ton of Steel slag used

D.1.11 Sulfur Dioxide (SO₂) Emissions and Sulfur Content

Blast Furnace Slag

(a) Compliance with the Blast Furnace slag limitations established in Condition D.1.4(a)(4) shall be determined utilizing one of the following options. Pursuant to 326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements), compliance shall be demonstrated on a thirty (30) day calendar-month average.

(1) Maintaining all records of vendor analyses or certifications of Blast Furnace slag delivered; or

(2) Analyzing a sample of each Blast Furnace slag delivery, if no vendor analyses or certifications are available, to determine the sulfur content of the Blast Furnace slag, 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.

Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the one hundred twenty (120) million British thermal units per hour burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, or other procedures approved by IDEM, OAQ.

A determination of noncompliance pursuant to any of the methods specified in (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.

Steel Slag
Compliance with the Steel slag limitations established in Condition D.1.4(a)(5) shall be determined utilizing one of the following options. Pursuant to 326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements), compliance shall be demonstrated on a thirty (30) day calendar-month average.

(1) Maintaining all records of vendor analyses or certifications of slag delivered; or

(2) Analyzing a sample of the Steel slag delivery if no vendor analyses or certifications are available, at least once per quarter, to determine the sulfur content of the Steel slag, 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.

Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the one hundred twenty (120) million British thermal units per hour burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, or other procedures approved by IDEM, OAQ.

A determination of noncompliance pursuant to any of the methods specified in (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.

Fuel Oil

Compliance with the fuel limitations established in Conditions D.1.4(a) and D.1.5 shall be determined utilizing one of the following options. Pursuant to 326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements), compliance shall be demonstrated on a thirty (30) day calendar-month average.

(1) 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 fuel oil, or one (1.00) pound per million British thermal units heat input when combusting either refinery blend or waste fuel oils, by:

(A) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

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

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

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

(2) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the one hundred twenty (120) million British thermal units 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 in (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.
D.1.12 Shingle Asbestos Content

Pursuant to 326 IAC 2-8-4, compliance with Condition D.1.3(c) shall be determined utilizing one of the following options:

1. Providing shingle supplier certification that the factory second shingles do not contain asbestos; or

2. Analyzing a sample of the factory second 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.

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

D.1.13 Visible Emissions Notations

(a) Daily visible emission notations of the aggregate dryer, mixer, and burner baghouse stack exhaust and the conveying, material transfer points, and screening shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.14 Broken or Failed Bag Detection

(a) For a single compartment baghouse 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 emission 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)]

D.1.15 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1(a), D.1.2(a) and D.1.6(a) the Permittee shall keep records of the amount of asphalt processed through the dryer/mixer. Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.

(b) To document compliance with Condition D.1.4(b)(6), the Permittee shall keep records of the amount of Blast Furnace slag processed through the dryer/mixer. Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.

(c) To document compliance with Conditions D.1.4(a)(4) and D.1.4(a)(5), the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and shall be complete and sufficient to establish compliance with the SO2 emission limits established in Conditions D.1.4(a)(4) and D.1.4(a)(5). For the sulfur content limit, the compliance determination period is each calendar month.

(1) Calendar dates covered in the compliance determination period;

(2) Actual slag usage, sulfur content and equivalent sulfur dioxide emission rates for all slag used at the source per month;

(3) A certification, signed by the owner or operator, that the records of the slag supplier certifications represent all of the slag used during the period; and

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

(4) Slag supplier certifications;

(5) The name of the slag supplier; and

(6) A statement from the slag supplier that certifies the sulfur content of the slag.

(d) To document compliance with Conditions D.1.3(a), D.1.3(b), D.1.4, and D.1.5, the Permittee shall maintain records in accordance with (1) through (7) below.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel usage, sulfur content, heat content, and equivalent sulfur dioxide emission rates for each fuel used at the source per month;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

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

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

(e) To document compliance with Condition D.1.3(c), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be obtained each time shingles are received from a new supplier and shall be complete and sufficient to establish compliance with the limit established in Conditions D.1.3(c).

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

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

3. Shingle supplier certifications;
4. The name of the shingle supplier(s); and
5. A statement from the shingle supplier(s) that certifies the asbestos content of the shingles from their company.

(f) To document compliance with Conditions D.1.4(c) and D.1.10 when combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, the Permittee shall maintain records of actual fuel usage, and equivalent nitrogen oxides and sulfur dioxide emission rates for each fuel used at the source per month.

(g) To document compliance with Condition D.1.13, the Permittee shall maintain daily records of the visible emission notations from each of the conveyors, screens, material transfer points, and dryer/mixer stack (SV-1) exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the plant did not operate that day).

(h) To document compliance with Condition D.1.14, the Permittee shall maintain the daily records of the pressure drop across the baghouse controlling the dryer/mixer. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g., the dryer/mixer did not operate that day).

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

D.1.16 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1(a), D.1.2(a), D.1.6(a), D.1.4(b), D.1.4(c), and D.1.10 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being
reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

**Emissions Unit Description:**

(d) Cold-mix (stockpile mix) asphalt manufacturing operations and storage piles.

(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 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, the VOC solvent used as a diluent in the liquid binder used in cold mix asphalt production from the plant shall not exceed 30.82 tons of VOC emissions are emitted per twelve (12) consecutive month period, with compliance determined at the end of each month. This shall be achieved by limiting the total VOC solvent of any one selected binder as follows:

- a) Penetrating prime coating
- b) Stockpile storage
- c) Application during the months of November, December, January, February and March.

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 2-8-4][326 IAC 2-2]

(a) Pursuant to 326 IAC 2-8-4, the VOC solvent used as a diluent in the liquid binder used in cold mix asphalt production from the plant shall not exceed 30.82 tons of VOC emissions are emitted per twelve (12) consecutive month period, with compliance determined at the end of each month. This shall be achieved by limiting the total VOC solvent of any one selected binder as follows:

When more than one binder is used, the formula in (6) must be applied so that the total VOC emitted is less than 30.82 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

1. **Cut back asphalt rapid cure**, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.

   Cutback asphalt rapid cure liquid binder usage shall not exceed 32.5 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

2. **Cut back asphalt medium cure**, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.

   Cutback asphalt medium cure liquid binder usage shall not exceed 44.1 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

3. **Cut back asphalt slow cure**, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.

   Cutback asphalt slow cure liquid binder usage shall not exceed 123.4 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.
(4) **Emulsified asphalt with solvent**, containing a maximum of 15% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume.

Emulsified asphalt with solvent liquid binder usage shall not exceed 66.5 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

(5) **Other asphalt with solvent binder**, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating

Other asphalt with solvent liquid binder shall not exceed 1233.7 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

(6) The VOC solvent allotments in (1) through (5) above shall be adjusted when more than one type of binder is used per twelve (12) consecutive month period, with compliance determined at the end of each month. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment factor listed in the table that follows.

\[
\text{VOC Emitted (tons/day)} = \frac{\text{VOC solvent used for each binder (tons/day)}}{\text{Adjustment factor}}
\]

<table>
<thead>
<tr>
<th>Type of Binder</th>
<th>Adjustment Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutback Asphalt</td>
<td></td>
</tr>
<tr>
<td>Rapid Cure</td>
<td>1.053</td>
</tr>
<tr>
<td>Medium Cure</td>
<td>1.429</td>
</tr>
<tr>
<td>Slow Cure</td>
<td>4.0</td>
</tr>
<tr>
<td>Emulsified Asphalt</td>
<td>2.155</td>
</tr>
<tr>
<td>Other Asphalt</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Compliance with these limits, combined with the VOC emissions from other units at this source, will limit source-wide VOC emissions to less than 50 tons per year and render 326 IAC 2-7 (Part 70 Permit Program), 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset) not applicable.

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

**D.2.3 Record Keeping Requirements**

To document compliance with Condition D.2.2, the Permittee shall maintain records in accordance with (a) through (d) below. Records maintained for (a) through (d) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits.
and/or the VOC emission limits established in Condition D.2.2.

(a) Calendar dates covered in the compliance determination period;

(b) Emulsified asphalt binder usage per month since the last compliance determination period;

(c) VOC solvent content by weight of the emulsified asphalt binder used each month; and

(d) Amount of VOC solvent used in the production of cold mix asphalt, and the amount of VOC emitted each month.

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

D.2.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).
SECTION D.3  EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e) Cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38°C (100°F) or;

(2) having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20°C (68°F); the use of which for all cleaners and solvents combined does not exceed one hundred forty-five (145) gallons per twelve (12) months;

(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.3.1  Cold Cleaner Degreaser Control Equipment and Operating Requirements [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), the Permittee shall:

(a) Ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

D.3.2  Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), the Permittee shall not operate a cold cleaning degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

D.3.3  Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for this facility and its associated control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.
D.3.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.2, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

1. The name and address of the solvent supplier.
2. The date of purchase (or invoice/bill dates of contract servicer indicating service date).
3. The type of solvent purchased.
4. The total volume of the solvent purchased.
5. The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)]
SECTION E.1 NSPS

Emissions Unit Description:

(a) One (1) hot mix asphalt drum mixer/dryer, identified as EU-01, constructed around 1996, capable of processing a maximum of 350 tons per hour of raw material, equipped with one (1) 120 million British thermal units (MMBtu) per hour natural gas fired burner, using #2 distillate fuel oil, Refinery Blend fuel oil, and Waste oil as backup fuels, processing slag and factory second shingles in the aggregate mix; equipped with one (1) baghouse for particulate control and exhausting through one (1) stack, identified as stack SV-1. This source produces cold mix asphalt. No grinding of shingles occurs at this source.

Under 40 CFR 60, Subpart I, this hot mix asphalt plant 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)]


(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart I.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports 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.

E.1.2 Standards of Performance for Hot Mix Asphalt Facilities NSPS [326 IAC 12][40 CFR Part 60, Subpart I]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart I (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission unit(s) listed above:

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

Compliance Determination Requirements [326 IAC 2-8-4(1)]

E.1.3 Testing Requirements [326 IAC 2-1.1-11][326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

In order to document the compliance status with Condition E.1.2, the Permittee shall perform the testing required under 40 CFR 60, Subpart I, utilizing methods as approved by the Commissioner, at least once every five (5) years from the date of the most recent valid compliance demonstration. Section C - Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.
SECTION E.2  

Emissions Unit Description:

(d) A gasoline fuel transfer and dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day, such as filling of tanks, locomotives, automobiles, having storage capacity less than or equal to ten thousand five hundred (10,500) gallons;

Under 40 CFR 60, Subpart CCCCCC, the units comprising this operation are considered affected facilities.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-8-4(1)]


(a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart CCCCCC.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports 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

E.2.2 Source Category Gasoline Dispensing Facilities NESHAP [40 CFR Part 63, Subpart CCCCCC]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart CCCCCC (included as Attachment B to the operating permit), for the emission unit(s) listed above:

(1) 40 CFR 63. 11110
(2) 40 CFR 63. 11111(a)(b)(e)(f)
(3) 40 CFR 63. 11112(a)(d)
(4) 40 CFR 63. 11113(b)(c)
(5) 40 CFR 63. 11116
(6) 40 CFR 63. 11130
(7) 40 CFR 63. 11131
(8) 40 CFR 63. 11132
(9) Table 3

Compliance Determination Requirements [326 IAC 2-8-4(1)]

E.2.3 Testing Requirements [326 IAC 2-1.1-11][326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

In order to document the compliance status with Condition E.2.2, the Permittee shall perform the testing required under 40 CFR 63, Subpart CCCCCC, utilizing methods as approved by the Commissioner, at least once every five (5) years from the date of the most recent valid compliance demonstration. Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.
E & B Paving, Inc.  Page 43 of 53  
Anderson, Indiana  F095-41346-03257

SECTION E.3  NSPS

Emissions Unit Description:

(d) One (1) portable diesel-fuel fired crusher for processing RAP, identified as EU-2, approved in 2019 for construction, with a maximum capacity of 350 tons per hour, uncontrolled.

Under 40 CFR 60, subpart OOO, this portable diesel-fueled crusher for processing 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)]


(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart OOO.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports 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

E.3.2 Nonmetallic Mineral Processing Plants NSPS [326 IAC 12][40 CFR Part 60, Subpart OOO]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart OOO (included as Attachment D to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission unit(s) listed above:

(1) 40 CFR 60.670(a)(1)
(2) 40 CFR 60.671
(3) 40 CFR 60.672(a), (b)
(4) 40 CFR 60.673
(5) 40 CFR 60.674(a), (b)
(6) 40 CFR 60.675(a), (b), (c)(1), (c)(3), (e), (f), (g), (i)
(7) 40 CFR 60.676
(8) Table 1
(9) Table 2
(10) Table 3

Compliance Determination Requirements [326 IAC 2-8-4(1)]

E.3.3 Testing Requirements [326 IAC 2-1.1-11][326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

In order to document the compliance status with Condition E.3.2, the Permittee shall perform the testing required under 40 CFR 60, Subpart OOO, utilizing methods as approved by the Commissioner, at least once every five (5) years from the date of the most recent 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: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, Indiana 46013
FESOP Permit No.: F095-41346-03257

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

Source Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, Indiana 46013
FESOP Permit No.: F095-41346-03257

This form consists of 2 pages

☐ This is an emergency as defined in 326 IAC 2-7-1(12)
  - The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime 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 2-8-12

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

<table>
<thead>
<tr>
<th>Date/Time Emergency started:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date/Time Emergency was corrected:</td>
</tr>
<tr>
<td>Was the facility being properly operated at the time of the emergency?</td>
</tr>
<tr>
<td>Describe:</td>
</tr>
<tr>
<td>Type of Pollutants Emitted: TSP, PM-10, SO2, VOC, NOx, CO, Pb, other:</td>
</tr>
<tr>
<td>Estimated amount of pollutant(s) emitted during emergency:</td>
</tr>
<tr>
<td>Describe the steps taken to mitigate the problem:</td>
</tr>
<tr>
<td>Describe the corrective actions/response steps taken:</td>
</tr>
<tr>
<td>Describe the measures taken to minimize emissions:</td>
</tr>
<tr>
<td>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:</td>
</tr>
</tbody>
</table>

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: E & B Paving, Inc.  
Source Address: 5002 S. State Road 67, Anderson, Indiana 46013  
FESOP Permit No.: F095-41346-03257  
Facility: Dryer/Burner (EU-01)  
Parameter: Hot Mix Asphalt Production  
Limit: The amount of hot mix asphalt produced in the dryer/burner shall not exceed 738,066 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

<table>
<thead>
<tr>
<th>QUARTER:</th>
<th>YEAR:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 1 + Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>This Month (tons)</td>
<td>Previous 11 Months (tons)</td>
<td>12 Month Total (tons)</td>
<td></td>
</tr>
</tbody>
</table>

☐ No deviation occurred in this quarter.  
☐ Deviation/s occurred in this quarter.  
Deviation has been reported on: ____________________________

Submitted by: _________________________________________  
Title / Position: _________________________________________  
Signature: _________________________________________  
Date:  _________________________________________  
Phone:  _________________________________________
Fuel / Slag Usage Quarterly Report

Source Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
FESOP Permit No.: F095-41346-03257
Facility: EU-01
Parameters: Nitrogen Oxides (NOx) and Sulfur Dioxide (SO2) Emissions

Limit: Nitrogen oxides (NOx) emissions shall be less than 49.9 tons per twelve (12) consecutive month period based on the following equation:

\[ N = G(EG) + O(EO) + R(ER) + W(EW) \]
\[ \frac{2,000 \text{ lbs/ton}}{2,000 \text{ lbs/ton}} \]

where:
- \( N \) = tons of nitrogen oxide emissions for a 12-month consecutive period
- \( G \) = million cubic feet of natural gas used in the last 12 months
- \( O \) = gallons of No. 2 fuel oil used in last 12 months
- \( R \) = gallons of Refinery Blend fuel oil used in last 12 months
- \( W \) = gallons of Waste oil used for last 12 months
- \( EG = 190 \text{ lb/million cubic feet of natural gas} \)
- \( EO = 24 \text{ lb/1000 gallons of No. 2 fuel oil} \)
- \( ER = 47 \text{ lb/1000 gallons of Refinery Blend fuel oil} \)
- \( EW = 19 \text{ lb/1000 gallons of Waste oil} \)

Limit: Sulfur dioxide (SO2) emissions shall be less than 49.9 tons per twelve (12) consecutive month period based on the following equation:

\[ S = G(EG) + O(EO) + R(ER) + W(EW) + B(EB) + T(ET) \]
\[ \frac{2,000 \text{ lbs/ton}}{2,000 \text{ lbs/ton}} \]

where:
- \( S \) = tons of sulfur dioxide emissions for a 12-month consecutive period
- \( G \) = million cubic feet of natural gas used in the last 12 months
- \( O \) = gallons of No. 2 fuel oil used in last 12 months
- \( R \) = gallons of Refinery Blend fuel oil used in last 12 months
- \( W \) = gallons of Waste oil used in last 12 months
- \( B \) = tons of Blast Furnace slag used in last 12 months
- \( T \) = tons of Steel slag used in last 12 months
- \( EG = 0.60 \text{ lb/million cubic feet of natural gas} \)
- \( EO = 71.00 \text{ lb/1000 gallons of No. 2 fuel oil} \)
- \( ER = 157 \text{ lb/1000 gallons of Refinery Blend fuel oil} \)
- \( EW = 147 \text{ lb/1000 gallons of Waste oil} \)
- \( EB = 0.54 \text{ lb/ton of Blast Furnace slag used} \)
- \( ET = 0.0014 \text{ lb/ton of Steel slag used} \)
### Multiple Fuel / Slag Usage Quarterly Report

**QUARTER: _______________ YEAR: ________________**

<table>
<thead>
<tr>
<th>Month</th>
<th>Fuel Types / Slag (units)</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 1 + Column 2</th>
<th>Equation Results</th>
<th>Emissions (tons per 12 months)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Month 1</strong></td>
<td>Natural Gas (million cubic feet)</td>
<td>Usage This Month</td>
<td>Usage Previous 11 Months</td>
<td>Usage 12 Month Total</td>
<td>Nitrogen Oxides =</td>
<td>Sulfur Dioxide =</td>
</tr>
<tr>
<td></td>
<td>No. 2 Fuel Oil (gallons)</td>
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<td></td>
<td>Refinery Blend Fuel Oil (gallons)</td>
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<td></td>
<td>Waste Fuel Oil (gallons)</td>
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<td></td>
<td>Blast Furnace Slag (tons)</td>
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<td>Steel Slag Usage (tons)</td>
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<td><strong>Month 2</strong></td>
<td>Natural Gas (million cubic feet)</td>
<td>Usage This Month</td>
<td>Usage Previous 11 Months</td>
<td>Usage 12 Month Total</td>
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<td>Sulfur Dioxide =</td>
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<tr>
<td></td>
<td>No. 2 Fuel Oil (gallons)</td>
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<td></td>
<td>Refinery Blend Fuel Oil (gallons)</td>
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<td></td>
<td>Waste Fuel Oil (gallons)</td>
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<td>Blast Furnace Slag (tons)</td>
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<td></td>
<td>Steel Slag Usage (tons)</td>
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<tr>
<td><strong>Month 3</strong></td>
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<td>Usage This Month</td>
<td>Usage Previous 11 Months</td>
<td>Usage 12 Month Total</td>
<td>Nitrogen Oxides =</td>
<td>Sulfur Dioxide =</td>
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<td>No. 2 Fuel Oil (gallons)</td>
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<td></td>
<td>Refinery Blend Fuel Oil (gallons)</td>
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<td>Waste Fuel Oil (gallons)</td>
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<td></td>
<td>Blast Furnace Slag (tons)</td>
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<td></td>
<td>Steel Slag Usage (tons)</td>
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</tbody>
</table>

- □ No deviation occurred in this reporting period.
- □ Deviation/s occurred in this reporting period.

Submitted by: __________________________ Date: __________________

Title / Position: __________________________ Phone: __________________

Deviations has been reported on: __________________________ Signature: __________________________

Attach a signed certification to complete this report.

An Equal Opportunity Employer

Recycled Paper
## Multiple Type of Binders Quarterly Report

**QUARTER:** _______________  **YEAR:** _______________

<table>
<thead>
<tr>
<th>Month</th>
<th>Fuel Types (units)</th>
<th>Usage This Month</th>
<th>Usage Previous 11 Months</th>
<th>Usage 12 Month Total</th>
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<td>Month 2</td>
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☐ No deviation occurred in this reporting period.  Submitted by: __________________________ Date: __________________________

☐ Deviation/s occurred in this reporting period.  Title / Position: __________________________ Phone: __________________________

Deviation has been reported on: __________________________  Signature: __________________________

Attach a signed certification to complete this report.

\[
\text{VOC Emitted (tons/day)} = \frac{\text{VOC solvent used for each binder (tons/day)}}{\text{Adjustment factor}}
\]

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<td>Other Asphalt</td>
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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: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, Indiana 46013
FESOP Permit No.: F095-41346-03257

Months: ___________ to ____________ Year: ______________

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B -Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C - General Reporting. 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

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<td>Response Steps Taken:</td>
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Form Completed by: ________________________________

Title / Position: ________________________________

Date: ________________________________

Phone: ________________________________
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. Ensure 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
   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.
PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

Source: 73 FR 1945, Jan. 10, 2008, unless otherwise noted.

What This Subpart Covers

§ 63.11110 What is the purpose of this subpart?

This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.

§ 63.11111 Am I subject to the requirements in this subpart?

(a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

(b) If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in § 63.11116.

(c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in § 63.11117.

(d) If your GDF has a monthly throughput of 100,000 gallons of gasoline or more, you must comply with the requirements in § 63.11118.

(e) An affected source shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. For new or reconstructed affected sources, as specified in § 63.11112(b) and (c), recordkeeping to document monthly throughput must begin upon startup of the affected source. For existing sources, as specified in § 63.11112(d), recordkeeping to document monthly throughput must begin on January 10, 2008. For existing sources that are subject to this subpart only because they load gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, recordkeeping to document monthly throughput must begin on January 24, 2011. Records required under this paragraph shall be kept for a period of 5 years.

(f) If you are an owner or operator of affected sources, as defined in paragraph (a) of this section, you are not required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 as a result of being subject to this subpart. However, you must still apply for and obtain a permit under 40 CFR part 70 or 40 CFR part 71 if you meet one or more of the applicability criteria found in 40 CFR 70.3(a) and (b) or 40 CFR 71.3(a) and (b).
(g) The loading of aviation gasoline into storage tanks at airports, and the subsequent transfer of aviation gasoline within the airport, is not subject to this subpart.

(h) Monthly throughput is the total volume of gasoline loaded into, or dispensed from, all the gasoline storage tanks located at a single affected GDF. If an area source has two or more GDF at separate locations within the area source, each GDF is treated as a separate affected source.

(i) If your affected source’s throughput ever exceeds an applicable throughput threshold, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold.

(j) The dispensing of gasoline from a fixed gasoline storage tank at a GDF into a portable gasoline tank for the on-site delivery and subsequent dispensing of the gasoline into the fuel tank of a motor vehicle or other gasoline-fueled engine or equipment used within the area source is only subject to § 63.11116 of this subpart.

(k) For any affected source subject to the provisions of this subpart and another Federal rule, you may elect to comply only with the more stringent provisions of the applicable subparts. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the affected source and provisions with which you will comply in your Notification of Compliance Status required under § 63.11124. You also must demonstrate in your Notification of Compliance Status that each provision with which you will comply is at least as stringent as the otherwise applicable requirements in this subpart. You are responsible for making accurate determinations concerning the more stringent provisions, and noncompliance with this rule is not excused if it is later determined that your determination was in error, and, as a result, you are violating this subpart. Compliance with this rule is your responsibility and the Notification of Compliance Status does not alter or affect that responsibility.


§ 63.11112 What parts of my affected source does this subpart cover?

(a) The emission sources to which this subpart applies are gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing GDF that meet the criteria specified in § 63.11111. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this subpart.

(b) An affected source is a new affected source if you commenced construction on the affected source after November 9, 2006, and you meet the applicability criteria in § 63.11111 at the time you commenced operation.

(c) An affected source is reconstructed if you meet the criteria for reconstruction as defined in § 63.2.

(d) An affected source is an existing affected source if it is not new or reconstructed.

§ 63.11113 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section, except as specified in paragraph (d) of this section.

(1) If you start up your affected source before January 10, 2008, you must comply with the standards in this subpart no later than January 10, 2008.

(2) If you start up your affected source after January 10, 2008, you must comply with the standards in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the standards in this subpart no later than January 10, 2011.
(c) If you have an existing affected source that becomes subject to the control requirements in this subpart because of an increase in the monthly throughput, as specified in § 63.11111(c) or § 63.11111(d), you must comply with the standards in this subpart no later than 3 years after the affected source becomes subject to the control requirements in this subpart.

(d) If you have a new or reconstructed affected source and you are complying with Table 1 to this subpart, you must comply according to paragraphs (d)(1) and (2) of this section.

(1) If you start up your affected source from November 9, 2006 to September 23, 2008, you must comply no later than September 23, 2008.

(2) If you start up your affected source after September 23, 2008, you must comply upon startup of your affected source.

(e) The initial compliance demonstration test required under § 63.11120(a)(1) and (2) must be conducted as specified in paragraphs (e)(1) and (2) of this section.

(1) If you have a new or reconstructed affected source, you must conduct the initial compliance test upon installation of the complete vapor balance system.

(2) If you have an existing affected source, you must conduct the initial compliance test as specified in paragraphs (e)(2)(i) or (e)(2)(ii) of this section.

(i) For vapor balance systems installed on or before December 15, 2009, you must test no later than 180 days after the applicable compliance date specified in paragraphs (b) or (c) of this section.

(ii) For vapor balance systems installed after December 15, 2009, you must test upon installation of the complete vapor balance system.

(f) If your GDF is subject to the control requirements in this subpart only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must comply with the standards in this subpart as specified in paragraphs (f)(1) or (f)(2) of this section.

(1) If your GDF is an existing facility, you must comply by January 24, 2014.

(2) If your GDF is a new or reconstructed facility, you must comply by the dates specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) If you start up your GDF after December 15, 2009, but before January 24, 2011, you must comply no later than January 24, 2011.

(ii) If you start up your GDF after January 24, 2011, you must comply upon startup of your GDF.


Emission Limitations and Management Practices

§ 63.11115 What are my general duties to minimize emissions?

Each owner or operator of an affected source under this subpart must comply with the requirements of paragraphs (a) and (b) of this section.

(a) You must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review
of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) You must keep applicable records and submit reports as specified in § 63.11125(d) and § 63.11126(b).

[76 FR 4182, Jan. 24, 2011]

§ 63.11116  Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

(a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;

(2) Clean up spills as expeditiously as practicable;

(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(b) You are not required to submit notifications or reports as specified in § 63.11125, § 63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(c) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11113.

(d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.


§ 63.11117  Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.

(a) You must comply with the requirements in section § 63.11116(a).

(b) Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in § 63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

(1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.

(2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.

(3) Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.

(c) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in paragraph (b) of this section, but must comply only with all of the requirements in § 63.11116.
(d) You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(e) You must submit the applicable notifications as required under § 63.11124(a).

(f) You must comply with the requirements of this subpart by the applicable dates contained in § 63.11113.


§ 63.11118 Requirements for facilities with monthly throughput of 100,000 gallons of gasoline or more.

(a) You must comply with the requirements in §§ 63.11116(a) and 63.11117(b).

(b) Except as provided in paragraph (c) of this section, you must meet the requirements in either paragraph (b)(1) or paragraph (b)(2) of this section.

(1) Each management practice in Table 1 to this subpart that applies to your GDF.

(2) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(2)(i) and (ii) of this section, you will be deemed in compliance with this subsection.

(i) You operate a vapor balance system at your GDF that meets the requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(c) The emission sources listed in paragraphs (c)(1) through (3) of this section are not required to comply with the control requirements in paragraph (b) of this section, but must comply with the requirements in § 63.11117.

(1) Gasoline storage tanks with a capacity of less than 250 gallons that are constructed after January 10, 2008.

(2) Gasoline storage tanks with a capacity of less than 2,000 gallons that were constructed before January 10, 2008.

(3) Gasoline storage tanks equipped with floating roofs, or the equivalent.

(d) Cargo tanks unloading at GDF must comply with the management practices in Table 2 to this subpart.

(e) You must comply with the applicable testing requirements contained in § 63.11120.

(f) You must submit the applicable notifications as required under § 63.11124.

(g) You must keep records and submit reports as specified in §§ 63.11125 and 63.11126.

(h) You must comply with the requirements of this subpart by the applicable dates contained in § 63.11113.

Testing and Monitoring Requirements

§ 63.11120 What testing and monitoring requirements must I meet?

(a) Each owner or operator, at the time of installation, as specified in § 63.11113(e), of a vapor balance system required under § 63.11118(b)(1), and every 3 years thereafter, must comply with the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 1 to this subpart, for pressure-vacuum vent valves installed on your gasoline storage tanks using the test methods identified in paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see § 63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).

(2) You must demonstrate compliance with the static pressure performance requirement specified in item 1(h) of Table 1 to this subpart for your vapor balance system by conducting a static pressure test on your gasoline storage tanks using the test methods identified in paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.


(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).


(b) Each owner or operator choosing, under the provisions of § 63.6(g), to use a vapor balance system other than that described in Table 1 to this subpart must demonstrate to the Administrator or delegated authority under paragraph § 63.11131(a) of this subpart, the equivalency of their vapor balance system to that described in Table 1 to this subpart using the procedures specified in paragraphs (b)(1) through (3) of this section.

(1) You must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP-201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see § 63.14).

(2) You must, during the initial performance test required under paragraph (b)(1) of this section, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 1 to this subpart and for the static pressure performance requirement in item 1(h) of Table 1 to this subpart.

(3) You must comply with the testing requirements specified in paragraph (a) of this section.

(c) Conduct of performance tests. Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(d) Owners and operators of gasoline cargo tanks subject to the provisions of Table 2 to this subpart must conduct annual certification testing according to the vapor tightness testing requirements found in § 63.11092(f).
Notifications, Records, and Reports

§ 63.11124  What notifications must I submit and when?

(a) Each owner or operator subject to the control requirements in § 63.11117 must comply with paragraphs (a)(1) through (3) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in § 63.11117, unless you meet the requirements in paragraph (a)(3) of this section. If your affected source is subject to the control requirements in § 63.11117 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (a)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in § 63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of § 63.11117 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in § 63.13, within 60 days of the applicable compliance date specified in § 63.11113, unless you meet the requirements in paragraph (a)(3) of this section. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facilities’ monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (a)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (a)(1) of this section.

(3) If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in § 63.11117(b), you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (a)(1) or paragraph (a)(2) of this section.

(b) Each owner or operator subject to the control requirements in § 63.11118 must comply with paragraphs (b)(1) through (5) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in § 63.11118. If your affected source is subject to the control requirements in § 63.11118 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (b)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in § 63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of § 63.11118 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in § 63.13, in accordance with the schedule specified in § 63.9(h). The Notification of
Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facility's throughput is determined based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (b)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (b)(1) of this section.

(3) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(3)(i) and (ii) of this section, you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (b)(1) or paragraph (b)(2) of this subsection.

(i) You operate a vapor balance system at your gasoline dispensing facility that meets the requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(4) You must submit a Notification of Performance Test, as specified in § 63.9(e), prior to initiating testing required by § 63.11120(a) and (b).

(5) You must submit additional notifications specified in § 63.9, as applicable.


§ 63.11125 What are my recordkeeping requirements?

(a) Each owner or operator subject to the management practices in § 63.11118 must keep records of all tests performed under § 63.11120(a) and (b).

(b) Records required under paragraph (a) of this section shall be kept for a period of 5 years and shall be made available for inspection by the Administrator's delegated representatives during the course of a site visit.

(c) Each owner or operator of a gasoline cargo tank subject to the management practices in Table 2 to this subpart must keep records documenting vapor tightness testing for a period of 5 years. Documentation must include each of the items specified in § 63.11094(b)(2)(i) through (viii). Records of vapor tightness testing must be retained as specified in either paragraph (c)(1) or paragraph (c)(2) of this section.

(1) The owner or operator must keep all vapor tightness testing records with the cargo tank.

(2) As an alternative to keeping all records with the cargo tank, the owner or operator may comply with the requirements of paragraphs (c)(2)(i) and (ii) of this section.

(i) The owner or operator may keep records of only the most recent vapor tightness test with the cargo tank, and keep records for the previous 4 years at their office or another central location.

(ii) Vapor tightness testing records that are kept at a location other than with the cargo tank must be instantly available (e.g., via e-mail or facsimile) to the Administrator’s delegated representative during the course of a site visit or within a mutually agreeable time frame. Such records must be an exact duplicate image of the original paper copy record with certifying signatures.
(d) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (d)(1) and (2) of this section.

(1) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.


§ 63.11126 What are my reporting requirements?

(a) Each owner or operator subject to the management practices in § 63.11118 shall report to the Administrator the results of all volumetric efficiency tests required under § 63.11120(b). Reports submitted under this paragraph must be submitted within 180 days of the completion of the performance testing.

(b) Each owner or operator of an affected source under this subpart shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.

[76 FR 4183, Jan. 24, 2011]

Other Requirements and Information

§ 63.11130 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions apply to you.

§ 63.11131 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as the applicable State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (3) of this section.

(1) Approval of alternatives to the requirements in §§ 63.11116 through 63.11118 and 63.11120.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.
§ 63.11132 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA), or in subparts A and BBB BBB of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

Dual-point vapor balance system means a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines.

Gasoline cargo tank means a delivery tank truck or railcar which is loading or unloading gasoline, or which has loaded or unloaded gasoline on the immediately previous load.

Gasoline dispensing facility (GDF) means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

Motor vehicle means any self-propelled vehicle designed for transporting persons or property on a street or highway.

Nonroad engine means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title or section 7521 of this title.

Nonroad vehicle means a vehicle that is powered by a nonroad engine, and that is not a motor vehicle or a vehicle used solely for competition.

Submerged filling means, for the purposes of this subpart, the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in § 63.11117(b) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

Vapor balance system means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.

Vapor-tight means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.

Vapor-tight gasoline cargo tank means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in § 63.11092(f) of this part.

Table 1 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More

<table>
<thead>
<tr>
<th>If you own or operate</th>
<th>Then you must</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A new, reconstructed, or existing GDF subject to § 63.11118</td>
<td>Install and operate a vapor balance system on your gasoline storage tanks that meets the design criteria in paragraphs (a) through (h).</td>
</tr>
<tr>
<td>(a) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnect.</td>
<td></td>
</tr>
<tr>
<td>(b) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor-tight, as defined in § 63.11132.</td>
<td></td>
</tr>
<tr>
<td>(c) The vapor balance system shall be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.</td>
<td></td>
</tr>
<tr>
<td>(d) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.</td>
<td></td>
</tr>
<tr>
<td>(e) If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in § 63.11117(b).</td>
<td></td>
</tr>
<tr>
<td>(f) Liquid fill connections for all systems shall be equipped with vapor-tight caps.</td>
<td></td>
</tr>
<tr>
<td>(g) Pressure/vacuum (PV) vent valves shall be installed on the storage tank vent pipes. The pressure specifications for PV vent valves shall be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.</td>
<td></td>
</tr>
<tr>
<td>(h) The vapor balance system shall be capable of meeting the static pressure performance requirement of the following equation: ( Pf = 2e^{\frac{600.887}{v}} )</td>
<td>Where: ( Pf = ) Minimum allowable final pressure, inches of water. ( v = ) Total ullage affected by the test, gallons. ( e = ) Dimensionless constant equal to approximately 2.718. ( 2 = ) The initial pressure, inches water.</td>
</tr>
</tbody>
</table>

2. A new or reconstructed GDF, or any storage tank(s) constructed after November 9, 2006, at an existing affected facility subject to § 63.11118 | Equip your gasoline storage tanks with a dual-point vapor balance system, as defined in § 63.11132, and comply with the requirements of item 1 in this Table. |

1 The management practices specified in this Table are not applicable if you are complying with the requirements in § 63.11118(b)(2), except that if you are complying with the requirements in § 63.11118(b)(2)(i)(B), you must operate using management practices at least as stringent as those listed in this Table.

Table 2 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Cargo Tanks Unloading at Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More

<table>
<thead>
<tr>
<th>If you own or operate</th>
<th>Then you must</th>
</tr>
</thead>
<tbody>
<tr>
<td>A gasoline cargo tank</td>
<td>Not unload gasoline into a storage tank at a GDF subject to the control requirements in this subpart unless the following conditions are met:</td>
</tr>
<tr>
<td></td>
<td>(i) All hoses in the vapor balance system are properly connected;</td>
</tr>
<tr>
<td></td>
<td>(ii) The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect,</td>
</tr>
<tr>
<td></td>
<td>(iii) All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight,</td>
</tr>
<tr>
<td></td>
<td>(iv) All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank, and</td>
</tr>
<tr>
<td></td>
<td>(v) All hatches on the tank truck are closed and securely fastened.</td>
</tr>
<tr>
<td></td>
<td>(vi) The filling of storage tanks at GDF shall be limited to unloading from vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the specifications of EPA Method 27 shall be carried with the cargo tank, as specified in § 63.11125(c).</td>
</tr>
</tbody>
</table>


Table 3 to Subpart CCCCCC of Part 63—Applicability of General Provisions

<table>
<thead>
<tr>
<th>Citation</th>
<th>Subject</th>
<th>Brief description</th>
<th>Applies to subpart CCCCCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ 63.1</td>
<td>Applicability</td>
<td>Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications</td>
<td>Yes, specific requirements given in § 63.11111.</td>
</tr>
<tr>
<td>§ 63.1(c)(2)</td>
<td>Title V Permit</td>
<td>Requirements for obtaining a title V permit from the applicable permitting authority</td>
<td>Yes, § 63.11111(f) of subpart CCCCCC exempts identified area sources from the obligation to obtain title V operating permits.</td>
</tr>
<tr>
<td>§ 63.2</td>
<td>Definitions</td>
<td>Definitions for part 63 standards</td>
<td>Yes, additional definitions in § 63.11132.</td>
</tr>
<tr>
<td>§ 63.3</td>
<td>Units and Abbreviations</td>
<td>Units and abbreviations for part 63 standards</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.4</td>
<td>Prohibited Activities and Circumvention</td>
<td>Prohibited activities; Circumvention, severability</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.5</td>
<td>Construction/Reconstruction</td>
<td>Applicability; applications; approvals</td>
<td>Yes, except that these notifications are not required for facilities subject to § 63.11116</td>
</tr>
<tr>
<td>§ 63.6(a)</td>
<td>Compliance with Standards/Operation &amp; Maintenance—Applicability</td>
<td>General Provisions apply unless compliance extension; General Provisions apply to area sources that become major</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart CCCCCC</td>
</tr>
<tr>
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</tr>
<tr>
<td>§ 63.6(b)(1)-(4)</td>
<td>Compliance Dates for New and Reconstructed Sources</td>
<td>Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(b)(5)</td>
<td>Notification</td>
<td>Must notify if commenced construction or reconstruction after proposal</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(b)(6)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(b)(7)</td>
<td>Compliance Dates for New and Reconstructed Area Sources That Become Major</td>
<td>Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(c)(1)-(2)</td>
<td>Compliance Dates for Existing Sources</td>
<td>Comply according to date in this subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension</td>
<td>No. § 63.11113 specifies the compliance dates.</td>
</tr>
<tr>
<td>§ 63.6(c)(3)-(4)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(c)(5)</td>
<td>Compliance Dates for Existing Area Sources That Become Major</td>
<td>Area sources That become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(d)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(e)(1)(i)</td>
<td>General duty to minimize emissions</td>
<td>Operate to minimize emissions at all times; information Administrator will use to determine if operation and maintenance requirements were met.</td>
<td>No. See § 63.11115 for general duty requirement.</td>
</tr>
<tr>
<td>§ 63.6(e)(1)(ii)</td>
<td>Requirement to correct malfunctions ASAP</td>
<td>Owner or operator must correct malfunctions as soon as possible.</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(e)(2)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(e)(3)</td>
<td>Startup, Shutdown, and Malfunction (SSM) Plan</td>
<td>Requirement for SSM plan; content of SSM plan; actions during SSM</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(f)(1)</td>
<td>Compliance Except During SSM</td>
<td>You must comply with emission standards at all times except during SSM</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(f)(2)-(3)</td>
<td>Methods for Determining Compliance</td>
<td>Compliance based on performance test, operation and maintenance plans, records, inspection</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(g)(1)-(3)</td>
<td>Alternative Standard</td>
<td>Procedures for getting an alternative standard</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(h)(1)</td>
<td>Compliance with Opacity/Visible Emission (VE) Standards</td>
<td>You must comply with opacity/VE standards at all times except during SSM</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(2)(i)</td>
<td>Determining Compliance with Opacity/VE Standards</td>
<td>If standard does not State test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(2)(ii)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart CCCCCC</td>
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</tr>
<tr>
<td>§ 63.6(h)(2)(iii)</td>
<td>Using Previous Tests To Demonstrate Compliance With Opacity/VE Standards</td>
<td>Criteria for when previous opacity/VE testing can be used to show compliance with this subpart</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(3)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(h)(4)</td>
<td>Notification of Opacity/VE Observation Date</td>
<td>Must notify Administrator of anticipated date of observation</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(5)(i), (iii)-(v)</td>
<td>Conducting Opacity/VE Observations</td>
<td>Dates and schedule for conducting opacity/VE observations</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(5)(ii)</td>
<td>Opacity Test Duration and Averaging Times</td>
<td>Must have at least 3 hours of observation with 30 6-minute averages</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(6)</td>
<td>Records of Conditions During Opacity/VE Observations</td>
<td>Must keep records available and allow Administrator to inspect</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(7)(i)</td>
<td>Report Continuous Opacity Monitoring System (COMS) Monitoring Data From Performance Test</td>
<td>Must submit COMS data with other performance test data</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(7)(ii)</td>
<td>Using COMS Instead of EPA Method 9</td>
<td>Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(7)(iii)</td>
<td>Averaging Time for COMS During Performance Test</td>
<td>To determine compliance, must reduce COMS data to 6-minute averages</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(7)(iv)</td>
<td>COMS Requirements</td>
<td>Owner/operator must demonstrate that COMS performance evaluations are conducted according to § 63.8(e); COMS are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d)</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(7)(v)</td>
<td>Determining Compliance with Opacity/VE Standards</td>
<td>COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting Performance Specification 1 in appendix B of part 60 of this chapter, and data have not been altered</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(8)</td>
<td>Determining Compliance with Opacity/VE Standards</td>
<td>Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(9)</td>
<td>Adjusted Opacity Standard</td>
<td>Procedures for Administrator to adjust an opacity standard</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(i)(1)-(14)</td>
<td>Compliance Extension</td>
<td>Procedures and criteria for Administrator to grant compliance extension</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(j)</td>
<td>Presidential Compliance Exemption</td>
<td>President may exempt any source from requirement to comply with this subpart</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart CCCCCC</td>
</tr>
<tr>
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<td>--------------------------</td>
</tr>
<tr>
<td>§ 63.7(a)(2)</td>
<td>Performance Test Dates</td>
<td>Dates for conducting initial performance testing; must conduct 180 days after compliance date</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(a)(3)</td>
<td>CAA Section 114 Authority</td>
<td>Administrator may require a performance test under CAA section 114 at any time</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(b)(1)</td>
<td>Notification of Performance Test</td>
<td>Must notify Administrator 60 days before the test</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(b)(2)</td>
<td>Notification of Re-scheduling</td>
<td>If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(c)</td>
<td>Quality Assurance (QA)/Test Plan</td>
<td>Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(d)</td>
<td>Testing Facilities</td>
<td>Requirements for testing facilities</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(e)(1)</td>
<td>Conditions for Conducting Performance Tests</td>
<td>Performance test must be conducted under representative conditions</td>
<td>No, § 63.11120(c) specifies conditions for conducting performance tests.</td>
</tr>
<tr>
<td>§ 63.7(e)(2)</td>
<td>Conditions for Conducting Performance Tests</td>
<td>Must conduct according to this subpart and EPA test methods unless Administrator approves alternative</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(e)(3)</td>
<td>Test Run Duration</td>
<td>Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(f)</td>
<td>Alternative Test Method</td>
<td>Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(g)</td>
<td>Performance Test Data Analysis</td>
<td>Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status; keep data for 5 years</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(h)</td>
<td>Waiver of Tests</td>
<td>Procedures for Administrator to waive performance test</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(a)(1)</td>
<td>Applicability of Monitoring Requirements</td>
<td>Subject to all monitoring requirements in standard</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(a)(2)</td>
<td>Performance Specifications</td>
<td>Performance Specifications in appendix B of 40 CFR part 60 apply</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(a)(3)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.8(a)(4)</td>
<td>Monitoring of Flares</td>
<td>Monitoring requirements for flares in § 63.11 apply</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(b)(1)</td>
<td>Monitoring</td>
<td>Must conduct monitoring according to standard unless Administrator approves alternative</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart CCCCCC</td>
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</tr>
<tr>
<td>§ 63.8(b)(2)-(3)</td>
<td>Multiple Effluents and Multiple Monitoring Systems</td>
<td>Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(c)(1)</td>
<td>Monitoring System Operation and Maintenance</td>
<td>Maintain monitoring system in a manner consistent with good air pollution control practices</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(c)(1)(i)-(iii)</td>
<td>Operation and Maintenance of Continuous Monitoring Systems (CMS)</td>
<td>Must maintain and operate each CMS as specified in § 63.6(e)(1); must keep parts for routine repairs readily available; must develop a written SSM plan for CMS, as specified in § 63.6(e)(3)</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(c)(2)-(8)</td>
<td>CMS Requirements</td>
<td>Must install to get representative emission or parameter measurements; must verify operational status before or at performance test</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(d)</td>
<td>CMS Quality Control</td>
<td>Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(e)</td>
<td>CMS Performance Evaluation</td>
<td>Notification, performance evaluation test plan, reports</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(f)(1)-(5)</td>
<td>Alternative Monitoring Method</td>
<td>Procedures for Administrator to approve alternative monitoring</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(f)(6)</td>
<td>Alternative to Relative Accuracy Test</td>
<td>Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system (CEMS)</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(g)</td>
<td>Data Reduction</td>
<td>COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.9(a)</td>
<td>Notification Requirements</td>
<td>Applicability and State delegation</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(b)(1)-(2), (4)-(5)</td>
<td>Initial Notifications</td>
<td>Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(c)</td>
<td>Request for Compliance Extension</td>
<td>Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart CCCCCC</td>
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<tr>
<td>§ 63.9(d)</td>
<td>Notification of Special Compliance Requirements for New Sources</td>
<td>For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(e)</td>
<td>Notification of Performance Test</td>
<td>Notify Administrator 60 days prior</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(f)</td>
<td>Notification of VE/Opacity Test</td>
<td>Notify Administrator 30 days prior</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.9(g)</td>
<td>Additional Notifications when Using CMS</td>
<td>Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative</td>
<td>Yes, however, there are no opacity standards.</td>
</tr>
<tr>
<td>§ 63.9(h)(1)-(6)</td>
<td>Notification of Compliance Status</td>
<td>Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority</td>
<td>Yes, however, there are no opacity standards.</td>
</tr>
<tr>
<td>§ 63.9(i)</td>
<td>Adjustment of Submittal Deadlines</td>
<td>Procedures for Administrator to approve change when notifications must be submitted</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(j)</td>
<td>Change in Previous Information</td>
<td>Must submit within 15 days after the change</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(a)</td>
<td>Recordkeeping/Reporting</td>
<td>Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(1)</td>
<td>Recordkeeping/Reporting</td>
<td>General requirements; keep all records readily available; keep for 5 years</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(i)</td>
<td>Records related to SSM</td>
<td>Recordkeeping of occurrence and duration of startups and shutdowns</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(ii)</td>
<td>Records related to SSM</td>
<td>Recordkeeping of malfunctions</td>
<td>No. See § 63.11125(d) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(iii)</td>
<td>Maintenance records</td>
<td>Recordkeeping of maintenance on air pollution control and monitoring equipment</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(iv)</td>
<td>Records Related to SSM</td>
<td>Actions taken to minimize emissions during SSM</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(v)</td>
<td>Records Related to SSM</td>
<td>Actions taken to minimize emissions during SSM</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(vi)- (xi)</td>
<td>CMS Records</td>
<td>Malfunctions, inoperative, out-of-control periods</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(xii)</td>
<td>Records</td>
<td>Records when under waiver</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(xiii)</td>
<td>Records</td>
<td>Records when using alternative to relative accuracy test</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(xiv)</td>
<td>Records</td>
<td>All documentation supporting Initial Notification and Notification of Compliance Status</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(3)</td>
<td>Records</td>
<td>Applicability determinations</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(c)</td>
<td>Records</td>
<td>Additional records for CMS</td>
<td>No.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart CCCCCC</td>
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</tr>
<tr>
<td>§ 63.10(d)(1)</td>
<td>General Reporting Requirements</td>
<td>Requirement to report</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(d)(2)</td>
<td>Report of Performance Test Results</td>
<td>When to submit to Federal or State authority</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(d)(3)</td>
<td>Reporting Opacity or VE Observations</td>
<td>What to report and when</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(d)(4)</td>
<td>Progress Reports</td>
<td>Must submit progress reports on schedule if under compliance extension</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(d)(5)</td>
<td>SSM Reports</td>
<td>Contents and submission</td>
<td>No. See § 63.11126(b) for malfunction reporting requirements.</td>
</tr>
<tr>
<td>§ 63.10(e)(1)-(2)</td>
<td>Additional CMS Reports</td>
<td>Must report results for each CEMS on a unit; written copy of CMS performance evaluation; two-three copies of COMS performance evaluation</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(e)(3)(i)-(iii)</td>
<td>Reports</td>
<td>Schedule for reporting excess emissions</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(e)(3)(iv)-(v)</td>
<td>Excess Emissions Reports</td>
<td>Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13)</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(e)(3)(iv)-(v)</td>
<td>Excess Emissions Reports</td>
<td>Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13)</td>
<td>No, § 63.11130(K) specifies excess emission events for this subpart</td>
</tr>
<tr>
<td>§ 63.10(e)(3)(vi)-(viii)</td>
<td>Excess Emissions Report and Summary Report</td>
<td>Requirements for reporting excess emissions for CMS; requires all of the information in §§ 63.10(c)(5)-(13) and 63.8(c)(7)-(8)</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(e)(4)</td>
<td>Reporting COMS Data</td>
<td>Must submit COMS data with performance test data</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(f)</td>
<td>Waiver for Recordkeeping/Reporting</td>
<td>Procedures for Administrator to waive</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart CCCCCC</td>
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</tr>
<tr>
<td>§ 63.11(b)</td>
<td>Flares</td>
<td>Requirements for flares</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.12</td>
<td>Delegation</td>
<td>State authority to enforce standards</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.13</td>
<td>Addresses</td>
<td>Addresses where reports, notifications, and requests are sent</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.14</td>
<td>Incorporations by Reference</td>
<td>Test methods incorporated by reference</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.15</td>
<td>Availability of Information</td>
<td>Public and confidential information</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

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.


§ 60.91 Definitions.

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

(a) Hot mix asphalt facility means any facility, as described in § 60.90, used to manufacture hot mix asphalt by heating and drying aggregate and mixing with asphalt cements.

[51 FR 12325, Apr. 10, 1986]

§ 60.92 Standard for particulate matter.

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

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

(2) Exhibit 20 percent opacity, or greater.

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

§ 60.93 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).
(b) The owner or operator shall determine compliance with the particulate matter standards in § 60.92 as follows:

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

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

[54 FR 6667, Feb. 14, 1989]
Attachment D

Federally Enforceable State Operating Permit (FESOP) No: F095-41346-03257

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

Source: 74 FR 19309, Apr. 28, 2009, unless otherwise noted.

§ 60.670 Applicability and designation of affected facility.

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; plants without crushers or grinding mills above ground; and wet material processing operations (as defined in § 60.671).

(b) An affected facility that is subject to the provisions of subparts F or I of this part or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in § 60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in § 60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in § 60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in § 60.671, having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the provisions of §§ 60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in § 60.676(a).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§ 60.672, 60.674 and 60.675.
(e) An affected facility under paragraph (a) of this section that commences construction, modification, or reconstruction after August 31, 1983, is subject to the requirements of this part.

(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.

§ 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more affected facilities to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crush or Crushing means to reduce the size of nonmetallic mineral material by means of physical impaction of the crusher or grinding mill upon the material.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: Jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in § 60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: Hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.
Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

1. Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

2. Sand and Gravel.

3. Clay including Kaolin, Fireclay, Bentonite, Fuller’s Earth, Ball Clay, and Common Clay.

4. Rock Salt.

5. Gypsum (natural or synthetic).

6. Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.

7. Pumice.

8. Gilsonite.


10. Boron, including Borax, Kernite, and Colemanite.


12. Fluorospar.

13. Feldspar.


15. Perlite.

16. Vermiculite.

17. Mica.

18. Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in § 60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.
Saturated material means, for purposes of this subpart, mineral material with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be “saturated” for purposes of this definition.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens). Grizzly feeders associated with truck dumping and static (non-moving) grizzlies used anywhere in the nonmetallic mineral processing plant are not considered to be screening operations.

Seasonal shut down means shut down of an affected facility for a period of at least 45 consecutive days due to weather or seasonal market conditions.

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) of nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: Trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet material processing operation(s) means any of the following:

(1) Wet screening operations (as defined in this section) and subsequent screening operations, bucket elevators and belt conveyors in the production line that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line; or

(2) Screening operations, bucket elevators and belt conveyors in the production line downstream of wet mining operations (as defined in this section) that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

§ 60.672 Standard for particulate matter (PM).

(a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under § 60.8. The requirements in Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.
(b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under § 60.11. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

(c) [Reserved]

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) Fugitive emissions from the building openings (except for vents as defined in § 60.671) must not exceed 7 percent opacity; and

(2) Vents (as defined in § 60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.

(f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

§ 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital cost that would be required to construct a comparable new facility” under § 60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under § 60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

(a) The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(1) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±250 pascals ±1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(2) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under § 60.676(b).
(1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of this section:

(i) The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and § 60.676(b), and

(ii) The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under § 60.11 of this part and § 60.675 of this subpart.

(2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under § 60.676(b) must specify the control mechanism being used instead of the water sprays.

(c) Except as specified in paragraph (d) or (e) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, Appendix A-7). The Method 22 (40 CFR part 60, Appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 CFR part 60, Appendix A-7) test, including the date and any corrective actions taken, in the logbook required under § 60.676(b). The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to § 60.675(b) simultaneously with a Method 22 (40 CFR part 60, Appendix A-7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.

(d) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions may use a bag leak detection system. The owner or operator must install, operate, and maintain the bag leak detection system according to paragraphs (d)(1) through (3) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (d)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (d)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (d)(1)(vi) of this section.
(vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (d)(2) of this section.

(vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) The owner or operator of the affected facility must develop and submit to the Administrator or delegated authority for approval of a site-specific monitoring plan for each bag leak detection system. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (d)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (d)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (d)(2)(vi) of this section, the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

(ii) Sealing off defective bags or filter media;

(iii) Replacing defective bags or filter media or otherwise repairing the control device;

(iv) Sealing off a defective fabric filter compartment;

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or

(vi) Shutting down the process producing the PM emissions.

(e) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility that is subject to the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) may follow the continuous compliance requirements in row 1 items (i) through (iii) of Table 6 to Subpart AAAAA of 40 CFR part 63.
§ 60.675 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 appendices A-1 through A-7 of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the PM standards in § 60.672(a) as follows:

(1) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of Appendix A-3 of this part or Method 17 of Appendix A-6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dsdcf). For Method 5 (40 CFR part 60, Appendix A-3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 of Appendix A-4 of this part and the procedures in § 60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in § 60.672(b) or § 60.672(e)(1), the owner or operator shall use Method 9 of Appendix A-4 of this part and the procedures in § 60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of this part, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2)(i) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under § 60.672(f) of this subpart, using Method 9 (40 CFR part 60, Appendix A-4), the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations shall be 1 hour (ten 6-minute averages).

(ii) The duration of the Method 9 (40 CFR part 60, Appendix A-4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

(3) When determining compliance with the fugitive emissions standard for any affected facility described under § 60.672(b) or § 60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

(d) To demonstrate compliance with the fugitive emission limits for buildings specified in § 60.672(e)(1), the owner or operator must complete the testing specified in paragraph (d)(1) and (2) of this section. Performance tests must be conducted while all affected facilities inside the building are operating.

(1) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 CFR part 60, Appendix A-4) performance test according to this section and § 60.11.

(2) If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 CFR part 60, Appendix A-7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with
the opacity limit in § 60.672(e)(1). If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 CFR part 60, Appendix A-4) performance test according to this section and § 60.11 to show compliance with the opacity limit in § 60.672(e)(1).

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

(i) No more than three emission points may be read concurrently.

(ii) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

(3) Method 5I of Appendix A-3 of this part may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of this section. Method 5I (40 CFR part 60, Appendix A-3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

(4) In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of Appendix A-1 of this part [i.e., velocity head <1.3 mm H2 O (0.05 in. H2 O)] and referred to in EPA Method 5 of Appendix A-3 of this part. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans (e.g., from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

\[ v_e = \frac{Q_f}{A_e} \quad (E\ q.\ 1) \]

Where:

- \( V_e \) = average building vent velocity (feet per minute);
- \( Q_f \) = average fan flow rate (cubic feet per minute); and
- \( A_e \) = area of building vent and measurement location (square feet).

(f) To comply with § 60.676(d), the owner or operator shall record the measurements as required in § 60.676(c) using the monitoring devices in § 60.674 (a)(1) and (2) during each particulate matter run and shall determine the averages.
(g) For performance tests involving only Method 9 (40 CFR part 60 Appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in § 60.7(a)(6) and 60.8(d) to a 7-day advance notification.

(h) [Reserved]

(i) If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in § 60.671 of this subpart) of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

§ 60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with § 60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(i) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(i) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(i) The rated capacity in megagrams or tons of the existing storage bin being replaced and

(ii) The rated capacity in megagrams or tons of replacement storage bins.

(b)(1) Owners or operators of affected facilities (as defined in §§ 60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under § 60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.

(2) For each bag leak detection system installed and operated according to § 60.674(d), the owner or operator must keep the records specified in paragraphs (b)(2)(i) through (iii) of this section.

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and
(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.

(3) The owner or operator of each affected facility demonstrating compliance according to § 60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) must maintain records of visible emissions observations required by § 63.7132(a)(3) and (b) of 40 CFR part 63, subpart AAAAA.

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss and liquid flow rate decrease by more than 30 percent from the average determined during the most recent performance test.

(e) The reports required under paragraph (d) of this section shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in § 60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with § 60.672(b), (e) and (f).

(g) The owner or operator of any wet material processing operation that processes saturated and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in § 60.672(b) and the emission test requirements of § 60.11.

(h) The subpart A requirement under § 60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

(j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

(k) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to § 60.4(b).
Table 1 to Subpart OOO of Part 60—Exceptions to Applicability of Subpart A to Subpart OOO

<table>
<thead>
<tr>
<th>Subpart A reference</th>
<th>Applies to subpart OOO</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>60.4, Address</td>
<td>Yes</td>
<td>Except in § 60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§ 60.676(k)).</td>
</tr>
<tr>
<td>60.7, Notification and recordkeeping</td>
<td>Yes</td>
<td>Except in (a)(1) notification of the date construction or reconstruction commenced (§ 60.676(h)).</td>
</tr>
<tr>
<td>60.8, Performance tests</td>
<td>Yes</td>
<td>Also, except in (a)(6) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§ 60.675(g)).</td>
</tr>
<tr>
<td>60.11, Compliance with standards and maintenance requirements</td>
<td>Yes</td>
<td>Except in (b) under certain conditions (§§ 60.675(c)), Method 9 (40 CFR part 60, Appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive emissions.</td>
</tr>
<tr>
<td>60.18, General control device</td>
<td>No</td>
<td>Flares will not be used to comply with the emission limits.</td>
</tr>
</tbody>
</table>

Table 2 to Subpart OOO of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems

<table>
<thead>
<tr>
<th>For * * *</th>
<th>The owner or operator must meet a PM limit of * * *</th>
<th>And the owner or operator must meet an opacity limit of * * *</th>
<th>The owner or operator must demonstrate compliance with these limits by conducting * * *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affected facilities (as defined in §§ 60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008</td>
<td>0.05 g/dscm (0.022 gr/dscf) a</td>
<td>7 percent for dry control devices b</td>
<td>An initial performance test according to § 60.8 of this part and § 60.675 of this subpart; and Monitoring of wet scrubber parameters according to § 60.674(a) and § 60.676(c), (d), and (e).</td>
</tr>
<tr>
<td>Affected facilities (as defined in §§ 60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008</td>
<td>0.032 g/dscm (0.014 gr/dscf) a</td>
<td>Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins</td>
<td>An initial performance test according to § 60.8 of this part and § 60.675 of this subpart; and Monitoring of wet scrubber parameters according to § 60.674(a) and § 60.676(c), (d), and (e); and Monitoring of baghouses according to § 60.674(c), (d), or (e) and § 60.676(b).</td>
</tr>
</tbody>
</table>

a Exceptions to the PM limit apply for individual enclosed storage bins and other equipment. See § 60.672(d) through (f).

b The stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.
Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits

<table>
<thead>
<tr>
<th>For ** **</th>
<th>The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§ 60.670 and 60.671) ** **</th>
<th>The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used ** **</th>
<th>The owner or operator must demonstrate compliance with these limits by conducting ** **</th>
</tr>
</thead>
<tbody>
<tr>
<td>** **</td>
<td>** **</td>
<td>** **</td>
<td>** **</td>
</tr>
<tr>
<td>Affected facilities (as defined in §§ 60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008</td>
<td>10 percent opacity</td>
<td>15 percent opacity</td>
<td>An initial performance test according to § 60.11 of this part and § 60.675 of this subpart.</td>
</tr>
<tr>
<td>Affected facilities (as defined in §§ 60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008</td>
<td>7 percent opacity</td>
<td>12 percent opacity</td>
<td>An initial performance test according to § 60.11 of this part and § 60.675 of this subpart; and Periodic inspections of water sprays according to § 60.674(b) and § 60.676(b); and A repeat performance test according to § 60.11 of this part and § 60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in § 60.674(b) and § 60.676(b) are exempt from this 5-year repeat testing requirement.</td>
</tr>
</tbody>
</table>
Source Description and Location

<table>
<thead>
<tr>
<th>Source Name:</th>
<th>E &amp; B Paving, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Location:</td>
<td>5002 S. State Road 67, Anderson, Indiana 46013</td>
</tr>
<tr>
<td>County:</td>
<td>Madison</td>
</tr>
<tr>
<td>SIC Code:</td>
<td>2951 (Asphalt Paving Mixtures and Blocks)</td>
</tr>
<tr>
<td>Permit Renewal No.:</td>
<td>F095-41346-03257</td>
</tr>
<tr>
<td>Permit Reviewer:</td>
<td>William Altman</td>
</tr>
</tbody>
</table>

On April 16, 2019, E & B Paving, Inc. submitted an application to the Office of Air Quality (OAQ) requesting to renew its operating permit. OAQ has reviewed the operating permit renewal application from E & B Paving, Inc. relating to the operation of a stationary drum hot mix asphalt plant. E & B Paving, Inc. was issued its first FESOP Renewal (F095-27798-03257) on January 15, 2010.

Existing Approvals

The source was issued FESOP Renewal No. F095-27798-03257 on January 15, 2010. There have been no subsequent approvals issued.

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

Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) One (1) hot mix asphalt drum mixer/dryer, identified as EU-01, constructed around 1996, capable of processing a maximum of 350 tons per hour of raw material, equipped with one (1) 120 million British thermal units (MMBtu) per hour natural gas fired burner, using #2 distillate fuel oil, Refinery Blend fuel oil, and Waste oil as backup fuels, processing slag and factory second shingles in the aggregate mix; equipped with one (1) baghouse for particulate control and exhausting through one (1) stack, identified as stack SV-1. This source produces cold mix asphalt. No grinding of shingles occurs at this source.

Under 40 CFR 60, Subpart I, this hot mix asphalt plant is considered an affected facility.

(b) Feeding, conveying and loading operations, constructed around 1996, consisting of the following:

1. Three (3) asphalt storage silos;
2. Three (3) storage piles, including:
   (i) Two (2) reclaimed asphalt pavement (RAP) piles, total capacity 20,000 tons;
   (ii) One (1) recycled shingles pile, total capacity 3,000 tons;
(3) Nine (9) feed bins, including:

   (i) Eight (8) cold feed bins for coarse to fine aggregate;

   (ii) One (1) feed bin for recycled asphalt pavement and recycled shingles;

(4) Five (5) conveyors including:

   (i) Three (3) transporting coarse to fine aggregate to the drum mixer;

   (ii) One (1) transporting recycled asphalt pavement and recycled shingles to the drum mixer;

   (iii) One (1) drag slat conveyor transporting hot mixed asphalt to the asphalt storage silos;

(c) One (1) 2.353 million British Thermal Units (MMBtu) per hour hot oil heater firing natural gas as the primary fuel and #2 distillate fuel oil as the backup fuel, constructed around 1996, and exhausting to stack SV-2.

(d) One (1) portable diesel-fueled crusher for processing RAP, identified as EU-2, approved in 2019 for construction, with a maximum capacity of 350 tons per hour, uncontrolled.

Under 40 CFR 60, subpart OOO, this portable diesel-fueled crusher for processing is considered an affected facility.

**Insignificant Activities**

The source also consists of the following insignificant activities:

(a) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu/hr;

(b) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu/hr and firing fuel containing less than five-tenths (0.5) percent;

(c) A gasoline fuel transfer and dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day, such as filling of tanks, locomotives, automobiles, having storage capacity less than or equal to ten thousand five hundred (10,500) gallons;

Under 40 CFR 60, Subpart CCCCCC, the units comprising this operation are considered affected facilities.

(d) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to ten thousand five hundred (10,500) gallons, and dispensing less than or equal to two hundred thousand (230,000) gallons per month;

(e) Cleaners and solvents characterized as follows:

   (1) having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38°C (100°F) or;

   (2) having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20°C (68°F); the use of which for all cleaners and solvents combined does not exceed one hundred forty-five (145) gallons per twelve (12) months;
(f) Vehicle travel on paved roads, unpaved roads, and parking lots.

### Enforcement Issue

There are no enforcement actions pending.

### Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

### County Attainment Status

The source is located in Madison County.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO₂</td>
<td>Cannot be classified.</td>
</tr>
<tr>
<td>CO</td>
<td>Unclassifiable or attainment effective November 15, 1990.</td>
</tr>
<tr>
<td>O₃</td>
<td>Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.¹</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>Basic nonattainment designation effective federally April 5, 2005, for PM₂.₅. for Madison Township. Unclassifiable or attainment for all townships except Madison Township, effective April 5, 2005, for the annual PM₂.₅ standard.</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM₂.₅ standard.</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>Unclassifiable effective November 15, 1990.</td>
</tr>
<tr>
<td>NO₂</td>
<td>Cannot be classified or better than national standards.</td>
</tr>
<tr>
<td>Pb</td>
<td>Unclassifiable or attainment effective December 31, 2011.</td>
</tr>
</tbody>
</table>

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

(a) **Ozone Standards**

Volatile organic compounds (VOC) and Nitrogen Oxides (NOₓ) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOₓ emissions are considered when evaluating the rule applicability relating to ozone. Madison County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOₓ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) **PM₂.₅**

Madison County has been classified as attainment for PM₂.₅. Therefore, direct PM₂.₅, SO₂, and NOₓ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) **Other Criteria Pollutants**

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

### Fugitive Emissions

This type of operation is not one (1) of the twenty-eight (28) listed source categories under 326 IAC 2-2-1(ff)(1), 326 IAC 2-3-2(g), or 326 IAC 2-7-1(22)(B). However, there is an applicable New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants that was in effect on August 7, 1980 (NSPS Subpart I (Hot Mix Asphalt Facilities)); therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.
The fugitive emissions of hazardous air pollutants (HAP) are counted toward the determination of Part 70 Permit applicability and source status under Section 112 of the Clean Air Act (CAA).

### Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at [http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf](http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf)) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court’s decision. U.S. EPA’s guidance states that U.S. EPA will no longer require PSD or Title V permits for sources “previously classified as ‘Major’ based solely on greenhouse gas emissions.”

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

<table>
<thead>
<tr>
<th>Unrestricted Potential Emissions (ton/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$^1$</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Total PTE of Entire Source Excluding Fugitives*</td>
</tr>
<tr>
<td>Fugitives from NSPS/NESHAP Source Category (source wide)</td>
</tr>
<tr>
<td>Total PTE of Entire Source</td>
</tr>
<tr>
<td>Title V Major Source Thresholds</td>
</tr>
<tr>
<td>PSD Major Source Thresholds</td>
</tr>
</tbody>
</table>

1 Under the Part 70 Permit program (40 CFR 70), PM$_{10}$ and PM$_{2.5}$, not particulate matter (PM), are each considered as a “regulated air pollutant.”
2 PM$_{2.5}$ listed is direct PM$_{2.5}$.
3 Single highest source-wide HAP

*Fugitive HAP emissions are always included in the source-wide emissions.

Appendix A of this TSD reflects the detailed unrestricted potential emissions of the source.

(a) The potential to emit (as defined in 326 IAC 2-7-1(30)) of PM10, PM2.5, SO2, NOx, VOC, and CO is equal to or greater than 100 tons per year. However, the Permittee has agreed to limit the source’s PM10, PM2.5, SO2, NOx, VOC, and CO emissions to less than Title V major source thresholds. Therefore, the source will be issued a FESOP Renewal.
(b) The potential to emit (as defined in 326 IAC 2-7-1(30)) of all other criteria pollutants are less than 100 tons per year.

(c) The potential to emit (as defined in 326 IAC 2-7-1(30)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(30)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. However, the source will be issued FESOP Renewal because the source will limit HAP emissions to less than the Title V major source threshold levels. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) subject to the provisions of 326 IAC 2-7.

### Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any new control equipment is considered federally enforceable only after issuance of this FESOP renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

<table>
<thead>
<tr>
<th>Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)</th>
<th>PM$^1$</th>
<th>PM$_{10}^{1}$</th>
<th>PM$_{2.5}^{1,2}$</th>
<th>SO$_2$</th>
<th>NO$_x$</th>
<th>VOC</th>
<th>CO</th>
<th>Single HAP$^3$</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PTE of Entire Source Excluding Fugitives*</td>
<td>75.03</td>
<td>34.52</td>
<td>43.56</td>
<td>49.90</td>
<td>49.90</td>
<td>11.87</td>
<td>48.84</td>
<td>2.22</td>
<td>3.96</td>
</tr>
<tr>
<td>Fugitives from NSPS/NESHAP Source Category (source wide)</td>
<td>49.87</td>
<td>15.38</td>
<td>6.34</td>
<td>0.00</td>
<td>0.00</td>
<td>37.9</td>
<td>1.06</td>
<td>2.84</td>
<td>8.34</td>
</tr>
<tr>
<td>Total PTE of Entire Source</td>
<td>124.9</td>
<td>49.9</td>
<td>49.9</td>
<td>49.9</td>
<td>49.9</td>
<td>49.77</td>
<td>49.9</td>
<td>2.84</td>
<td>12.3</td>
</tr>
<tr>
<td>Title V Major Source Thresholds</td>
<td>NA</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>10</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>PSD Major Source Thresholds</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

$^1$Under the Part 70 Permit program (40 CFR 70), PM$_{10}$ and PM$_{2.5}$, not particulate matter (PM), are each considered as a "regulated air pollutant."

$^2$PM$_{2.5}$ listed is direct PM$_{2.5}$.

$^3$Single highest source-wide HAP.

*Fugitive HAP emissions are always included in the source-wide emissions.

Appendix A of this TSD reflects the detailed potential to emit of the entire source after issuance.

The source opted to take limit(s) in order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this source and to render the source an area source of HAP emissions under Section 112 of the Clean Air Act (CAA). See Technical Support Document (TSD) State Rule Applicability - Entire Source section, 326 IAC 2-8 (FESOP), 326 IAC 2-2 (PSD), and 326 IAC 2-3 (Emission Offset), and 326 IAC 20 (Hazardous Air Pollutants) for more information regarding the limit(s).

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of two hundred fifty (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 source is not a major source of HAP, as defined in 40 CFR 63.2, because HAP emissions 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).
Federal Rule Applicability

New Source Performance Standards (NSPS):

(a) This drum hot mix asphalt plant is subject to the New Source Performance Standards for Hot-mix Asphalt Facilities 40 CFR 60, Subpart I and 326 IAC 12, because it meets the definition of a hot-mix asphalt facility pursuant to the rule and it was constructed after June 11, 1973. This rule limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf) and also limits visible emissions to 20% opacity. The unit's subject to this rule includes the following:

The Dryer/Mixer is subject to the following portions of Subpart I.

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

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

(b) The requirements of the New Source Performance Standard for Asphalt Processing and Asphalt Roofing Manufacture, 40 CFR 60, Subpart UU (326 IAC 12), are not included in the permit, since pursuant to 40 CFR 60.471, the stationary drum hot-mix asphalt plant is not an asphalt processing plant because it does not blow asphalt, or an asphalt roofing plant because it does not produce asphalt roofing products, and pursuant to 40 CFR 60.101(a) the stationary drum hot-mix asphalt plant is not a petroleum refinery because it is not engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of petroleum or through redistillation, cracking or reforming of unfinished petroleum derivatives.

(c) The requirements of the New Source Performance Standard for Bulk Gasoline Terminals (40 CFR 60, Subpart XX)(326 IAC 12), are not included in the permit, since the source is not considered a bulk gasoline terminal under 40 CFR 60.500. The source has an insignificant gasoline fuel transfer and dispensing operation.

(d) The portable crusher is subject to the New Source Performance Standards for Nonmetallic Mineral Processing Plants 40 CFR 60, Subpart OOO and 326 IAC 12, because this is a crusher located at a hot mix asphalt facility that reduces the size of nonmetallic minerals embedded in recycled asphalt pavement. The portable crusher subject to this rule includes the following:

The portable crusher is subject to the following portions of Subpart OOO.

(1) 40 CFR 60.670(a)(1)
(2) 40 CFR 60.671
(3) 40 CFR 60.672(a), (b)
(4) 40 CFR 60.673
(5) 40 CFR 60.674(a), (b)
(6) 40 CFR 60.675(a), (b), (c)(1), (c)(3), (e), (f), (g), (i)
(7) 40 CFR 60.676
(8) Table 1
(9) Table 2
(10) Table 3

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the portable crusher except as otherwise specified in 40 CFR 60, Subpart OOO.
(e) The requirements of the New Source Performance Standard for Calciners and Dryers in Mineral Industries, 40 CFR 60, Subpart UUU (326 IAC 12), are not included in the permit, since a stationary drum hot-mix asphalt plant is not a mineral processing plant, meaning that it does not process or produce any of the following minerals, their concentrates or any mixture of which the majority (>50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite.

(f) There are no other New Source Performance Standards (NSPS)(40 CFR Part 60) included in the permit.

**National Emission Standards for Hazardous Air Pollutants (NESHAP):**

(a) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Asphalt Processing and Asphalt Roofing Manufacturing 40 CFR 63, Subpart LLLLL and 326 IAC 20-71 are not included in the permit for this drum hot mix asphalt plant, since the stationary drum hot-mix asphalt plant is not a major source of HAPs, is not located at and is not part of a major source of HAP emissions, and does not engage in the preparation of asphalt flux or asphalt roofing materials.

(b) The gasoline fuel transfer and dispensing operation is subject to the National Emission Standards for Hazardous Air Pollutants for Source Category Gasoline Dispensing Facilities 40 CFR 63, Subpart CCCCCC, because this source has a gasoline dispensing facility and is considered an area source. The affected source includes each gasoline cargo tank during the delivery of product to a gasoline dispensing facility and also includes each storage tank. The compliance date for gasoline fuel transfer and dispensing operation is January 10, 2011. The gasoline fuel transfer and dispensing operation subject to this rule include the following:

The gasoline fuel transfer and dispensing operation is subject to the following portions of Subpart CCCCCC:

(1) 40 CFR 63. 11110
(2) 40 CFR 63. 11111(a)(b)(e)(f)
(3) 40 CFR 63. 11112(a)(d)
(4) 40 CFR 63. 11113(b)(c)
(5) 40 CFR 63. 11116
(6) 40 CFR 63. 11130
(7) 40 CFR 63. 11131
(8) 40 CFR 63. 11132
(9) Table 3

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the gasoline fuel transfer and dispensing operation except as otherwise specified in 40 CFR 63, Subpart CCCCCC.

(c) There are no other National Emission Standards for Hazardous Air Pollutants under 40 CFR 63, 326 IAC 14 and 326 IAC 20 included in the permit.

**Compliance Assurance Monitoring (CAM):**

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

State rule applicability for this source has been reviewed as follows:

326 IAC 2-8-4 (FESOP) and 326 IAC 20 (Hazardous Air Pollutants)
FESOP applicability is discussed under the Potential to Emit After Issuance section of this document.

FESOP PM10, PM2.5, SO2, NOx, VOC, and CO Limit(s)
Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-7 (Part 70 Permits), not applicable, the Permittee shall comply with the following:

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

(a) Fuel and Sulfur Content Specifications

(1) The sulfur content of No.2 fuel oil shall not exceed 0.50 percent by weight.

(2) The sulfur content of the refinery blend fuel oil shall not exceed 1.00 percent by weight.

(3) The sulfur content of the waste fuel oil shall not exceed 1.00 percent by weight.

(4) The HCl emissions shall not exceed 13.2 pounds of HCl per 1,000 gallons of waste oil burned.

(5) The waste oil combusted shall not contain more than 0.50% ash, 0.20% chlorine, and 0.01% Lead.

(6) The sulfur content of the Blast Furnace slag shall not exceed 1.10 percent by weight.

(7) The sulfur content of the Steel slag shall not exceed 0.66 percent by weight.

(b) Single Fuel Usage and Slag Usage Limitations:

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

(1) Natural gas usage shall not exceed 509.78 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month;

(2) No. 2 fuel oil usage shall not exceed 697,295 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month;

(3) Refinery blend fuel oil usage shall not exceed 315,337 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month; and

(4) Waste oil usage shall not exceed 336,789 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
(5) The Blast Furnace slag usage shall not exceed 73,800 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) Multiple Fuel Usage and Slag Usage Limitation:

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

(1) NOx emissions from the dryer/mixer shall be less than 49.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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

\[
N = \frac{G(E_G) + O(E_O) + R(E_R) + W(E_W)}{2,000 \text{ lbs/ton}}
\]

where:

\[
N = \text{tons of nitrogen oxide emissions for a 12-month consecutive period}
\]
\[
G = \text{million cubic feet of natural gas used in the last 12 months}
\]
\[
O = \text{gallons of No. 2 fuel oil used in last 12 months}
\]
\[
R = \text{gallons of Refinery Blend fuel oil used in last 12 months}
\]
\[
W = \text{gallons of Waste oil used for last 12 months}
\]
\[
E_G = 190 \text{ lb/million cubic feet of natural gas}
\]
\[
E_O = 24 \text{ lb/1000 gallons of No. 2 fuel oil}
\]
\[
E_R = 47 \text{ lb/1000 gallons of Refinery Blend fuel oil}
\]
\[
E_W = 19 \text{ lb/1000 gallons of Waste oil}
\]

(2) SO2 emissions from the dryer/mixer shall be less than 49.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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

\[
S = \frac{G(E_G) + O(E_O) + R(E_R) + W(E_W) + B(E_B) + T(E_T)}{2,000 \text{ lbs/ton}}
\]

where:

\[
S = \text{tons of sulfur dioxide emissions for a 12-month consecutive period}
\]
\[
G = \text{million cubic feet of natural gas used in the last 12 months}
\]
\[
O = \text{gallons of No. 2 fuel oil used in last 12 months}
\]
\[
R = \text{gallons of Refinery Blend fuel oil used in last 12 months}
\]
\[
W = \text{gallons of Waste oil used in last 12 months}
\]
\[
B = \text{tons of Blast Furnace slag used in last 12 months}
\]
\[
T = \text{tons of Steel slag used in last 12 months}
\]
\[
E_G = 0.60 \text{ lb/million cubic feet of natural gas}
\]
\[
E_O = 71.00 \text{ lb/1000 gallons of No. 2 fuel oil}
\]
\[
E_R = 157 \text{ lb/1000 gallons of Refinery Blend fuel oil}
\]
\[
E_W = 147 \text{ lb/1000 gallons of Waste oil}
\]
\[
E_B = 0.54 \text{ lb/ton of Blast Furnace slag used}
\]
\[
E_T = 0.0014 \text{ lb/ton of Steel slag used}
\]

(d) Shingle Usage Limitation:
The Permittee shall use only factory second shingles, containing no asbestos, 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 NOx and SO2 to less than 100 tons per 12 consecutive month period, each, HCL to less than 10 tons per 12 consecutive month period, and any combination of HAPs to less than 25 tons per 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.

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

(a) The amount of asphalt processed shall not exceed 738,066 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The PM10 emissions from the dryer/mixer shall not exceed 0.093 pounds per ton of asphalt processed.

(c) The PM2.5 emissions from the dryer/mixer shall not exceed 0.117 pounds per ton of asphalt processed.

(d) The CO emissions from the dryer/mixer shall not exceed 0.13 pounds per ton of asphalt processed.

(e) The VOC emissions from the dryer/mixer shall not exceed 0.032 pounds per ton of asphalt processed.

(f) The SO2 emissions from the dryer/mixer shall not exceed 0.540 pounds per ton of Blast Furnace slag processed in the aggregate mix.

(g) The SO2 emissions from the dryer/mixer shall not exceed 0.0014 pounds per ton of Steel slag processed in the aggregate mix.

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

Note: The source has opted to limit source-wide potential to emit PM10, PM2.5, CO, VOC, and SO2 to less than 50 tons per twelve (12) consecutive month period. This would allow for the co-location of an additional asphalt plant to the same location, as long as the co-located plant has limited potentials to emit equal to or less than those that are issued within this permit.

(3) Pursuant to 326 IAC 2-8, the Permittee shall control PM, PM10, and PM2.5 emissions from the unpaved roads according to the fugitive dust plan, included as Attachment A to the permit.

(4) Pursuant to 326 IAC 2-8-4, the VOC solvent used as a diluent in the liquid binder used in cold mix asphalt production from the plant shall not exceed 30.8 tons of VOC emissions are emitted per twelve (12) consecutive month period, with compliance determined at the end of each month. This shall be achieved by limiting the total VOC solvent of any one selected binder as follows:
When more than one binder is used, the formula in (6) must be applied so that the total VOC emitted is less than 30.8 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(1) **Cut back asphalt rapid cure**, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.

Cutback asphalt rapid cure liquid binder usage shall not exceed 32.5 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) **Cut back asphalt medium cure**, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.

Cutback asphalt medium cure liquid binder usage shall not exceed 44.1 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) **Cut back asphalt slow cure**, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.

Cutback asphalt slow cure liquid binder usage shall not exceed 123.4 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

(4) **Emulsified asphalt with solvent**, containing a maximum of 15% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume.

Emulsified asphalt with solvent liquid binder usage shall not exceed 66.5 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

(5) **Other asphalt with solvent binder**, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating

Other asphalt with solvent liquid binder shall not exceed 1233.7 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

(6) The VOC solvent allotments in (1) through (5) above shall be adjusted when more than one type of binder is used per twelve (12) consecutive month period, with compliance determined at the end of each month. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment factor listed in the table that follows.

\[
\text{VOC Emitted (tons/day)} = \frac{\text{VOC solvent used for each binder (tons/day)}}{\text{Adjustment factor}}
\]

<table>
<thead>
<tr>
<th>Type of Binder</th>
<th>Adjustment Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutback Asphalt Rapid Cure</td>
<td>1.053</td>
</tr>
<tr>
<td>Cutback Asphalt Medium Cure</td>
<td>1.429</td>
</tr>
</tbody>
</table>
### Type of Binder Adjustment Factor

<table>
<thead>
<tr>
<th>Type of Binder</th>
<th>Adjustment Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutback Asphalt Slow Cure</td>
<td>4.0</td>
</tr>
<tr>
<td>Emulsified Asphalt</td>
<td>2.155</td>
</tr>
<tr>
<td>Other Asphalt</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Compliance with these limits, combined with the VOC emissions from other units at this source, will limit source-wide VOC emissions to less than 50 tons per year and render 326 IAC 2-7 (Part 70 Permit Program), 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset) not applicable.

### FESOP HAP Limit(s)

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the source an area source of HAP emissions under Section 112 of the Clean Air Act (CAA), and render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable, the Permittee shall comply with the following:

1. **The HCl emissions shall not exceed 13.2 pounds of HCl per 1,000 gallons of waste oil burned.**
2. **The waste oil combusted shall not contain more than 0.50% ash, 0.20% chlorine, and 0.01% Lead.**
3. **The Permittee shall use only factory second shingles, containing no asbestos, as an additive in its aggregate mix.**

Compliance with these limits, combined with the potential to emit HAP from all other emission units at the source, shall limit the source-wide potential to emit single HAP to less than 10 tons per twelve (12) consecutive month period and the source-wide potential to emit total HAPs to less than 25 tons per twelve (12) consecutive month period, and shall render the source an area source of HAP emissions under Section 112 of the Clean Air Act (CAA) and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable.

### 326 IAC 2-2 (PSD)

PSD applicability is discussed under the Potential to Emit After Issuance section of this document.

#### PSD Minor Source Limits

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

1. **The amount of asphalt processed shall not exceed 738,066 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.**
2. **PM emissions from the dryer/mixer shall not exceed 0.203 pounds per ton of asphalt processed.**

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

**Note:** The source has opted to limit source-wide potential to emit PM to less than 125 tons per twelve (12) consecutive month period. This would allow for the co-location of an additional asphalt plant to the same location, as long as the co-located plant has limited potential to emit equal to or less than those that are issued within this permit.
326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The provisions of 326 IAC 2-4.1 apply to any owner or operator who constructs or reconstructs a major source of hazardous air pollutants (HAP), as defined in 40 CFR 63.41, after July 27, 1997, unless the major source has been specifically regulated under or exempted from regulation under a NESHAP that was issued pursuant to Section 112(d), 112(h), or 112(j) of the Clean Air Act (CAA) and incorporated under 40 CFR 63. On and after June 29, 1998, 326 IAC 2-4.1 is intended to implement the requirements of Section 112(g)(2)(B) of the Clean Air Act (CAA).

The operation of this drum hot-mix asphalt operation will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)
This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, or LaPorte County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.

326 IAC 5-1 (Opacity Limitations)
This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1)

326 IAC 6-4 (Fugitive Dust Emissions Limitations)
The source is subject to the requirements of 326 IAC 6-4, because the paved and unpaved roadways have the potential to emit fugitive particulate emissions. 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.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This source was constructed after December 13, 1985 and has potential fugitive particulate emissions of twenty-five (25) tons per year or more. Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the Fugitive Dust Control Plan that is included as Attachment A to the permit.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(a), this source (located in Madison County) is not subject to the requirements of 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

326 IAC 6.8 (Particulate Matter Limitations for Lake County)
Pursuant to 326 IAC 6.8-1-1(a), this source (located in Madison County) is not subject to the requirements of 326 IAC 6.8 because it is not located in Lake County.

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)
Pursuant to this rule, the source shall submit reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate (pounds SO_2 per MMBtu), to the OAQ upon request.

326 IAC 12-1 (New Source Performance Standards)
The hot-mix asphalt plant is required to comply with the requirements of 40 CFR 60.90, Subpart I, Standards of Performance for Hot-mix Asphalt Facilities, as described in the “Federal Rule Applicability” section of this TSD.

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State Rule Applicability – Individual Facilities

State rule applicability has been reviewed as follows:

Dryer-mixer
326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(c)(5), the dryer-mixer is not subject to the requirements of 326 IAC 6-3, since this unit is subject to NSPS subpart I.

326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)
The asphalt drum mixer/dryer, identified as emission unit EU-01, is subject to 326 IAC 7-1.1 because it has potential SO2 emissions of greater than 25 tons per year (limited potential emissions are 49.90 tons per year). Pursuant to this rule, sulfur dioxide emissions from the dryer/mixer burner shall be limited to five-tenths (0.5) pounds per million Btu for distillate oil combustion (including No. 2 fuel oil). This equates to a maximum allowable sulfur content of (0.5% by weight) for the distillate fuel oils.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)
In order to render the requirements of 326 IAC 8-1-6 not applicable, the dryer/mixer shall be limited as follows:

(a) The amount of asphalt processed shall not exceed 738,066 tons per twelve (12) consecutive month period and a VOC limit of 0.032 pound of VOC per ton of hot mix asphalt produced.

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

Parts Washer

326 IAC 8-3 (Organic Solvent Degreasing Operations)
Pursuant to 326 IAC 8-3 (Organic Solvent Degreasing Operations), the cold cleaner degreasing operation is subject to the requirements of 326 IAC 8-3-2 (Cold cleaner degreaser control equipment) and 326 IAC 8-3-8 (Material requirements for cold cleaner degreasers), since the operation meets the definition of a cold cleaner degreaser under 326 IAC 1-2-18.5 constructed after July 1, 1990, utilizes an organic solvent containing volatile organic compounds (VOCs) (as defined by 326 IAC 1-2-90), is not required to comply with 326 IAC 20-6-1 that incorporates by reference 40 CFR 63, Subpart T (National Emissions Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning), and uses a solvent that contain more than one percent (1%) of VOC by weight. The source shall meet the material requirements for cold cleaning degreasers specified in 326 IAC 8-3-8(b) and record keeping requirements specified in 326 IAC 8-3-8(c) and (d) of this rule.

Paved & unpaved roads

326 IAC 8-5-2 (Miscellaneous operations: asphalt paving)
Any paving application made after January 1, 1980, is subject to the requirements of 326 IAC 8-5-2. Pursuant to this rule, no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

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

The owner or operator will not process emulsified or cutback asphalt at this source unless proper approval has been obtained from IDEM, OAQ. Therefore, this source is not subject to this rule.

326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Category)
This source does not operate a Portland cement kiln or a blast furnace gas boiler with a heat input greater than two hundred fifty million (250,000,000) British thermal units per hour. The one (1) 120 million Btu dryer/mixer burner is not subject to this rule, therefore the requirements of 326 IAC 10-3 are not included in the permit for this source.
**Gasoline Dispensing**

**326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)**  
Tanks-01 through -04 are each not subject to the requirements of this rule because the source is not located in Clark, Floyd, Lake, or Porter Counties.

**Portable Crusher**

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**  
Pursuant to 326 IAC 6-3-1(c)(5), the portable crusher is not subject to the requirements of 326 IAC 6-3, since this unit is subject to NSPS subpart OOO.

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### Compliance Determination and Monitoring Requirements

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

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

(a) The Compliance Determination Requirements applicable to this source are as follows:
### Testing Requirements:

#### Summary of Testing Requirements

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Control Device</th>
<th>Timeframe for Testing or Date of Initial Valid Demonstration</th>
<th>Pollutant/Parameter</th>
<th>Frequency of Testing</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>(EU-01)</td>
<td>Baghouse</td>
<td>Within five (5) years of the date of the last valid compliance demonstration</td>
<td>PM</td>
<td>Once every five (5) years</td>
<td>326 IAC 6-3-2</td>
</tr>
<tr>
<td>(EU-01)</td>
<td>Baghouse</td>
<td>Within five (5) years of the date of the last valid compliance demonstration</td>
<td>PM10</td>
<td>Once every five (5) years</td>
<td>326 IAC 2-2</td>
</tr>
<tr>
<td>(EU-01)</td>
<td>Baghouse</td>
<td>Within five (5) years of the date of the last valid compliance demonstration</td>
<td>PM2.5</td>
<td>Once every five (5) years</td>
<td>326 IAC 2-2</td>
</tr>
<tr>
<td>(EU-01)</td>
<td>Baghouse</td>
<td>180 days after initial use of Blast Furnace slag</td>
<td>SO2</td>
<td>One Time*</td>
<td>326 IAC 2-2</td>
</tr>
<tr>
<td>Portable Crusher</td>
<td>None</td>
<td>Within 60 days after achieving the maximum production rate of the emission unit, but not later than 180 days after initial startup of the emission unit.</td>
<td>PM</td>
<td>Once every five (5) years</td>
<td>NSPS Subpart OOO</td>
</tr>
<tr>
<td>Portable Crusher</td>
<td>None</td>
<td>Within 60 days after achieving the maximum production rate of the emission unit, but not later than 180 days after initial startup of the emission unit.</td>
<td>PM10</td>
<td>Once every five (5) years</td>
<td>NSPS Subpart OOO</td>
</tr>
<tr>
<td>Portable Crusher</td>
<td>None</td>
<td>Within 60 days after achieving the maximum production rate of the emission unit, but not later than 180 days after initial startup of the emission unit.</td>
<td>PM2.5</td>
<td>Once every five (5) years</td>
<td>NSPS Subpart OOO</td>
</tr>
</tbody>
</table>

(b) The Compliance Monitoring Requirements applicable to this source are as follows:

<table>
<thead>
<tr>
<th>Control Device</th>
<th>Type of Parametric Monitoring</th>
<th>Frequency</th>
<th>Range or Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conveyors, screening, material transfer points and dryer/mixer stack (SV-1) exhaust</td>
<td>Visible Emissions</td>
<td>Daily</td>
<td>Normal-Abnormal</td>
</tr>
<tr>
<td>Portable Crusher</td>
<td>Visible Emissions</td>
<td>Daily</td>
<td>normal/abnormal</td>
</tr>
</tbody>
</table>
These monitoring conditions are necessary because the baghouse for the dryer/mixer must operate properly to assure compliance with 326 IAC 6-3.

These monitoring conditions are necessary because the conveyors, screening, material transfer points and dryer/mixer stack exhaust for the dryer/mixer must operate properly to assure compliance with 326 IAC 6-3.

The Permittee is required to obtain a certification from each shingle supplier stating that the factory seconds contain no asbestos.

### 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 April 16, 2019.

The operation of this stationary drum hot mix asphalt plant shall be subject to the conditions of the attached proposed FESOP Renewal No. F095-41346-03257.

The staff recommends to the Commissioner that the FESOP Renewal be approved.

### IDEM Contact

(a) If you have any questions regarding this permit, please contact William Altman, 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) 233-9664 or (800) 451-6027, and ask for William Altman or (317) 233-9664.

(b) A copy of the findings is available on the Internet at: [http://www.in.gov/ai/appfiles/idem-caats/](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 Air Permits page on the Internet at: [http://www.in.gov/idem/airquality/2356.htm](http://www.in.gov/idem/airquality/2356.htm); and the Citizens' Guide to IDEM on the Internet at: [http://www.in.gov/idem/6900.htm](http://www.in.gov/idem/6900.htm).
## Appendix A.2: Limited Emissions Summary

### Entire Source - Drum Mix

**Company Name:** E & B Paving, Inc.  
**Source Address:** 5002 S. State Road 67, Anderson, IN 46013  
**Permit Number:** F 095-4134-03257  
**Reviewer:** William Altman

### Asphalt Plant Limitations - Drum Mix

<table>
<thead>
<tr>
<th>Limitation Description</th>
<th>Limitation Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Hourly Asphalt Production</td>
<td>350 ton/hr</td>
</tr>
<tr>
<td>Annual Asphalt Production Limitation</td>
<td>735,080 ton/yr</td>
</tr>
<tr>
<td>Blast Furnace Slag Usage Limitation</td>
<td>75,800 ton/yr</td>
</tr>
<tr>
<td>Steel Slag Usage Limitation</td>
<td>735,080 ton/yr</td>
</tr>
<tr>
<td>Maximum Dryer Fuel Input Rate</td>
<td>510 MMBtu/hr</td>
</tr>
<tr>
<td>Natural Gas Limitation</td>
<td>326.15 MMCF/yr</td>
</tr>
<tr>
<td>No. 2 Fuel Oil Limitation</td>
<td>660.106 gal/yr, 0.50% sulfur</td>
</tr>
<tr>
<td>No. 6 Fuel Oil Limitation</td>
<td>310.337 gal/yr, 0.50% sulfur</td>
</tr>
<tr>
<td>Propane Limitation</td>
<td>130.769 gal/yr, 0.50% sulfur</td>
</tr>
<tr>
<td>Diesel Fuel Limitation - Generator &lt; 600 HP</td>
<td>0 gal/yr</td>
</tr>
<tr>
<td>Diesel Fuel Limitation - Generator &gt; 600 HP</td>
<td>0 gal/yr</td>
</tr>
<tr>
<td>Cold Mix Asphalt VOC Limitation</td>
<td>30.8 tons/yr</td>
</tr>
</tbody>
</table>

### Limited/Controlled Emissions

#### Limited/Controlled Potential Emissions (tons/year)

<table>
<thead>
<tr>
<th>Process Description</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>CO2e</th>
<th>Total HAPs</th>
<th>Worst Case HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM Dryer/Mixer Limitation</td>
<td>0.203</td>
<td>lton of asphalt production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM10 Dryer/Mixer Limitation</td>
<td>0.033</td>
<td>lton of asphalt production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM2.5 Dryer/Mixer Limitation</td>
<td>0.177</td>
<td>lton of asphalt production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO Dryer/Mixer Limitation</td>
<td>0.130</td>
<td>lton of asphalt production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC Dryer/Mixer Limitation</td>
<td>0.032</td>
<td>lton of asphalt production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blast Furnace Slag SO2 Dryer/Mixer Limitation</td>
<td>0.0014</td>
<td>lton of slag processed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Steel Slag SO2 Dryer/Mixer Limitation</td>
<td>0.0014</td>
<td>lton of slag processed</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Cold Mix Asphat VOC Limitation</td>
<td>30.8</td>
<td>tons/yr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Fugitive Emissions

<table>
<thead>
<tr>
<th>Process Description</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>CO2e</th>
<th>Total HAPs</th>
<th>Worst Case HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Load-Out, Silo Filling, On-Site Yard</td>
<td>0.41</td>
<td>0.41</td>
<td>0.41</td>
<td>0</td>
<td>0</td>
<td>8.23</td>
<td>1.06</td>
<td>0</td>
<td>0.11</td>
<td>0.03 (formaldehyde)</td>
</tr>
<tr>
<td>Material Storage Pits</td>
<td>1.88</td>
<td>0.59</td>
<td>0.59</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>Material Processing and Handling</td>
<td>2.38</td>
<td>1.15</td>
<td>1.15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unpaved and Paved Roads (worst case)</td>
<td>33.89</td>
<td>8.96</td>
<td>8.96</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cold Mix Asphalt Production</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>30.84</td>
<td>0</td>
<td>30.84</td>
<td>3.75</td>
<td>2.84 (xylenes)</td>
</tr>
<tr>
<td>Gasoline Fuel Transfer and Dispensing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.74</td>
<td>0</td>
<td>0</td>
<td>0.19</td>
<td>0.07 (xylenes)</td>
</tr>
<tr>
<td>Volatile Organic Liquid Storage Tanks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Totals Limited/Controlled Emissions

<table>
<thead>
<tr>
<th>Process</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>CO2e</th>
<th>Total HAPs</th>
<th>Worst Case HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fugitive Emissions</td>
<td>49.87</td>
<td>15.38</td>
<td>6.34</td>
<td>0</td>
<td>0</td>
<td>37.90</td>
<td>1.06</td>
<td>0</td>
<td>8.34</td>
<td>2.84 (xylenes)</td>
</tr>
</tbody>
</table>

#### Totals Limited/Controlled Emissions

<table>
<thead>
<tr>
<th>Process</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>CO2e</th>
<th>Total HAPs</th>
<th>Worst Case HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Limited/Controlled Emissions</td>
<td>124.90</td>
<td>49.90</td>
<td>49.90</td>
<td>49.90</td>
<td>49.90</td>
<td>49.77</td>
<td>49.90</td>
<td>49.815.42</td>
<td>12.39</td>
<td>2.84 (xylenes)</td>
</tr>
</tbody>
</table>

**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 Dry Fuel Combustion and Dryer/Mixer + Dryer/Mixer Slag Processing + Worst Case Emissions from Hot Oil Heater Fuel Combustion and Hot Oil Heating System + Diesel-Fired Generator ≤ 600 HP + Diesel-Fired Generator > 600 HP

Fuel component percentages provided by the source.
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.

### Fuel Limitations

<table>
<thead>
<tr>
<th>Maximum Fuel Input Rate</th>
<th>510 MBtu/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas Limitation</td>
<td>715 MMCF/yr</td>
</tr>
<tr>
<td>No. 2 Fuel Oil Limitation</td>
<td>697.285 gals/yr, and 0.36% sulfur</td>
</tr>
<tr>
<td>No. 4 Fuel Oil Limitation</td>
<td>648.168 gals/yr, and 0.54% sulfur</td>
</tr>
<tr>
<td>Residual (No. 5 or No. 6) Fuel Oil Limitation</td>
<td>315.347 gals/yr, and 0.98% sulfur</td>
</tr>
<tr>
<td>Propane Limitation</td>
<td>745.723 gals/yr, and 0.29% sulfur</td>
</tr>
<tr>
<td>Butane Limitation</td>
<td>6,977.274 gals/yr, and 0.27% sulfur</td>
</tr>
<tr>
<td>Used/Waste Oil Limitation</td>
<td>336.785 gals/yr, and 0.10% sulfur</td>
</tr>
</tbody>
</table>

#### Limited Emissions

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas (lb/MMCF)</th>
<th>No. 2 Fuel Oil (lb/MMCF)</th>
<th>No. 4 Fuel Oil (lb/MMCF)</th>
<th>Residual (No. 5 or No. 6) Fuel Oil (lb/MMCF)</th>
<th>Propane (lb/MMCF)</th>
<th>Butane (lb/MMCF)</th>
<th>Used/Used Oil (lb/MMCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM2.5/PM10</td>
<td>1.05E-05</td>
<td>1.00E-05</td>
<td>1.05E-05</td>
<td>1.00E-05</td>
<td>0.55E-05</td>
<td>0.55E-05</td>
<td>0.55E-05</td>
</tr>
<tr>
<td>VOC</td>
<td>1.40</td>
<td>1.40</td>
<td>1.40</td>
<td>1.40</td>
<td>0.55</td>
<td>0.55</td>
<td>0.55</td>
</tr>
<tr>
<td>NOx</td>
<td>0.020</td>
<td>0.020</td>
<td>0.020</td>
<td>0.020</td>
<td>0.020</td>
<td>0.020</td>
<td>0.020</td>
</tr>
<tr>
<td>CO</td>
<td>3.2</td>
<td>3.2</td>
<td>3.2</td>
<td>3.2</td>
<td>3.2</td>
<td>3.2</td>
<td>3.2</td>
</tr>
<tr>
<td>Statement</td>
<td>0.200</td>
<td>0.200</td>
<td>0.200</td>
<td>0.200</td>
<td>0.200</td>
<td>0.200</td>
<td>0.200</td>
</tr>
</tbody>
</table>

#### Emission Factors

- **PM2.5/PM10, VOC, NOx, CO**: Emission factors in tons/yr are calculated using the equation:
  \[ \text{Emission Factor (tons/yr)} = \frac{(\text{Fuel Limitation (gals/yr)}) \times (\text{Emission Factor (lb/kgal)}) \times (\text{kgal/1000 gal}) \times (\text{ton/2000 lbs})}{2000} \]

- **PM2.5/PM10**: Emission factors for PM2.5/PM10 are calculated using the equation:
  \[ \text{PM2.5/PM10 Emission Factor (tons/yr)} = \frac{(\text{Fuel Limitation (gals/yr)}) \times (\text{Emission Factor (lb/kgal)})}{2000} \]

#### Methodology

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

### Abbreviations

- **PM**: Particulate Matter
- **CO**: Carbon Monoxide
- **NOx**: Nitrous Oxides
- **VOC**: Volatile Organic Compounds
- **PAH**: Polyaromatic Hydrocarbons
- **HCl**: Hydrogen Chloride
- **HAP**: Hazardous Air Pollutant
- **PMG**: Particulate Matter (<10 um)
- **SO2**: Sulfur Dioxide
- **PAH**: Polyaromatic Hydrocarbons
- **HAP**: Hazardous Air Pollutant

---

*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 emission factors from combustion of residual or No. 6 fuel oil.*
Appendix A.2: Limited Emissions Summary
Page 3 of 20 TSD App A.2

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

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

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.

### Fuel Limitations

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Maximum Fuel Input Rate</th>
<th>Natural Gas Limitation</th>
<th>No. 2 Fuel Oil Limitation</th>
<th>No. 4 Fuel Oil Limitation</th>
<th>Residual (No. 5 or No. 6) Fuel Oil Limitation</th>
<th>Propane Limitation</th>
<th>Butane Limitation</th>
<th>Used/Waste Oil Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>510 MMBtu/hr</td>
<td>510 MMCF/yr</td>
<td>657,295 gal/yr, and 0.50% sulfur</td>
<td>660,106 gal/yr, and 0.50% sulfur</td>
<td>315,337 gal/yr, and 1.00% sulfur</td>
<td>7,450,703 gal/yr, and 0.20 g/100 ft³ sulfur</td>
<td>6,457,276 gal/yr, and 0.22 g/100 ft³ sulfur</td>
<td>356,789 gal/yr, and 1.00% sulfur</td>
</tr>
</tbody>
</table>

### Limited Emissions

<table>
<thead>
<tr>
<th>CO2e Fraction</th>
<th>Natural Gas (lb/MMCF)</th>
<th>No. 2 Fuel Oil (lb/kgal)</th>
<th>No. 4 Fuel Oil (lb/kgal)</th>
<th>Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)</th>
<th>Propane (lb/kgal)</th>
<th>Butane (lb/kgal)</th>
<th>Used/Waste Oil (lb/kgal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>30,628.35</td>
<td>7,845.06</td>
<td>7,971.92</td>
<td>3,915.71</td>
<td>44,586.89</td>
<td>44,366.86</td>
<td>3,708.74</td>
</tr>
<tr>
<td>CH4</td>
<td>0.64</td>
<td>0.32</td>
<td>0.32</td>
<td>0.16</td>
<td>2.30</td>
<td>2.15</td>
<td>0.15</td>
</tr>
<tr>
<td>N2O</td>
<td>0.56</td>
<td>0.09</td>
<td>0.09</td>
<td>0.08</td>
<td>0.36</td>
<td>0.21</td>
<td>0.04</td>
</tr>
<tr>
<td>Total</td>
<td>30,811.35</td>
<td>7,880.03</td>
<td>7,998.89</td>
<td>3,944.55</td>
<td>47,756.82</td>
<td></td>
<td>47,756.82</td>
</tr>
</tbody>
</table>

### Global Warming Potentials (GWP)

<table>
<thead>
<tr>
<th>Name</th>
<th>Chemical Formula</th>
<th>Global warming potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide</td>
<td>CO2</td>
<td>1</td>
</tr>
<tr>
<td>Methane</td>
<td>CH4</td>
<td>25</td>
</tr>
<tr>
<td>Nitrogen oxide</td>
<td>N2O</td>
<td>258</td>
</tr>
</tbody>
</table>

### 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.)

1. 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/MMCF. Emission Factor for NO2 from AP-42 Oil: 1.3 (dated 5/10), Table 1.3-8

2. 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 NO2 from AP-42 Chapter 1.5 (dated 7/08), Table 1.5-1

### Potential to Emit (tons/yr)

<table>
<thead>
<tr>
<th>CO2e Fraction</th>
<th>Natural Gas (tons/yr)</th>
<th>No. 2 Fuel Oil (tons/yr)</th>
<th>No. 4 Fuel Oil (tons/yr)</th>
<th>Residual (No. 5 or No. 6) Fuel Oil (tons/yr)</th>
<th>Propane (tons/yr)</th>
<th>Butane (tons/yr)</th>
<th>Used/Waste Oil (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>30,628.35</td>
<td>7,845.06</td>
<td>7,971.92</td>
<td>3,915.71</td>
<td>44,586.89</td>
<td>44,366.86</td>
<td>3,708.74</td>
</tr>
<tr>
<td>CH4</td>
<td>0.64</td>
<td>0.32</td>
<td>0.32</td>
<td>0.16</td>
<td>2.30</td>
<td>2.15</td>
<td>0.15</td>
</tr>
<tr>
<td>N2O</td>
<td>0.56</td>
<td>0.09</td>
<td>0.09</td>
<td>0.08</td>
<td>0.36</td>
<td>0.21</td>
<td>0.04</td>
</tr>
<tr>
<td>Total</td>
<td>30,811.35</td>
<td>7,880.03</td>
<td>7,998.89</td>
<td>3,944.55</td>
<td>47,756.82</td>
<td></td>
<td>47,756.82</td>
</tr>
</tbody>
</table>

### CO2e Equivalent Emissions (tons/yr)

30,811.35 + 7,880.03 + 7,998.89 + 3,944.55 = 47,622.09 + 47,756.82 = 3,721.54

CO2e Equivalent Emissions (tons/yr) 30,811.35 + 7,880.03 + 7,998.89 + 3,944.55 = 47,622.09 + 47,756.82 = 3,721.54
### Limited Emissions Summary

**Dryer/Mixer - Process Emissions**

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

#### Methodology

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


<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
<th>Worse Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM*</td>
<td>0.203</td>
<td>0.203</td>
<td>0.203</td>
<td>74.9</td>
<td>74.9</td>
<td>74.9</td>
<td>74.9</td>
</tr>
<tr>
<td>PM10*</td>
<td>0.093</td>
<td>0.093</td>
<td>0.093</td>
<td>34.3</td>
<td>34.3</td>
<td>34.3</td>
<td>34.3</td>
</tr>
<tr>
<td>SO2**</td>
<td>0.003</td>
<td>0.011</td>
<td>0.058</td>
<td>1.8</td>
<td>4.1</td>
<td>21.4</td>
<td>21.4</td>
</tr>
<tr>
<td>NOx**</td>
<td>0.024</td>
<td>0.055</td>
<td>0.050</td>
<td>9.8</td>
<td>20.3</td>
<td>20.3</td>
<td>20.3</td>
</tr>
<tr>
<td>VOC**</td>
<td>0.033</td>
<td>0.033</td>
<td>0.032</td>
<td>11.8</td>
<td>11.8</td>
<td>11.8</td>
<td>11.8</td>
</tr>
<tr>
<td>CO***</td>
<td>0.130</td>
<td>0.130</td>
<td>0.130</td>
<td>48.0</td>
<td>48.0</td>
<td>48.0</td>
<td>48.0</td>
</tr>
</tbody>
</table>

#### Total HAPs

**Total Single HAP** 1.1440023 (formaldehyde)

**Abbreviations**

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


**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 are 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.**

**CO AP-42 emission factor determined by combining data from drum mix dryer fired with natural gas, No. 2 fuel oil, and No. 2 fuel oil to develop single CO emission factor.**
Appendix A.2: Limited Emissions Summary
Greenhouse Gas (CO2e) Emissions from the
Drum-Mix Plant (Dryer/Mixer) Process Emissions

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

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

| Maximum Hourly Asphalt Production | 350 ton/hr |
| Annual Asphalt Production Limitation | 738,066 ton/yr |

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas (lb/ton)</th>
<th>No. 2 Fuel Oil (lb/ton)</th>
<th>Waste Oil (lb/ton)</th>
<th>Global Warming Potentials (GWP)</th>
<th>Natural Gas (tons/yr)</th>
<th>No. 2 Fuel Oil (tons/yr)</th>
<th>Waste Oil (tons/yr)</th>
<th>CO2e for</th>
<th>Drum-Mix Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>33</td>
<td>33</td>
<td>33</td>
<td>1</td>
<td>12,178.09</td>
<td>12,178.09</td>
<td>12,178.09</td>
<td>12,182.52</td>
<td>Drum-Mix Plant</td>
</tr>
<tr>
<td>CH4</td>
<td>0.0120</td>
<td>0.0120</td>
<td>0.0120</td>
<td>25</td>
<td>4.43</td>
<td>4.43</td>
<td>4.43</td>
<td>12,182.52</td>
<td>Total</td>
</tr>
<tr>
<td>N2O</td>
<td>298</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12,182.52</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12,182.52</td>
<td>12,182.52</td>
<td>12,182.52</td>
<td>12,288.80</td>
<td></td>
</tr>
</tbody>
</table>

CO2e Equivalent Emissions (tons/yr) = 12,288.80

**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 from 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 (25) + N2O Potential Emission of "worst case" fuel (ton/yr) x N2O GWP (298).

**Abbreviations**
CO2 = Carbon Dioxide
CH4 = Methane
N2O = Nitrogen Dioxide
PTE = Potential to Emit
Dryer/Mixer Slag Processing

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

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

Limited Blast Furnace Slag Usage = 73,800 ton/yr
Limited Annual Steel Slag Usage = 738,066 ton/yr

<table>
<thead>
<tr>
<th>Type of Slag</th>
<th>SO2 Emission Factor (lb/ton)</th>
<th>Limited Potential to Emit SO2 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blast Furnace Slag*</td>
<td>0.5400</td>
<td>19.9</td>
</tr>
<tr>
<td>Steel Slag**</td>
<td>0.0014</td>
<td>0.52</td>
</tr>
</tbody>
</table>

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
### Hot Oil Heater

**Fuel Combustion with Maximum Capacity < 100 MMBtu/hr**

Company Name: E & B Paving, Inc.
Source Location: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

Maximum Hot Oil Heater Fuel Input Rate = 2.35 MMBtu/hr
Natural Gas Usage = 21 MMCF/yr
No. 2 Fuel Oil Usage = 147,043 gal/yr, and 0.50 % sulfur

#### Unlimited/Uncontrolled Emissions

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas (lb/MMCF)</th>
<th>No. 2 Fuel Oil (lb/kgal)</th>
<th>Natural Gas (tons/yr)</th>
<th>No. 2 Fuel Oil (tons/yr)</th>
<th>Hot Oil Heater</th>
<th>Hot Oil Heater</th>
<th>Worst Case Fuel (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM2.5</td>
<td>7.6</td>
<td>3.3</td>
<td>0.078</td>
<td>0.243</td>
<td>0.24</td>
<td>0.24</td>
<td>0.24</td>
</tr>
<tr>
<td>SO2</td>
<td>0.6</td>
<td>7.10</td>
<td>0.006</td>
<td>5.220</td>
<td>5.22</td>
<td>5.22</td>
<td>5.22</td>
</tr>
<tr>
<td>NOx</td>
<td>100</td>
<td>20.0</td>
<td>1.029</td>
<td>1.470</td>
<td>1.47</td>
<td>1.47</td>
<td>1.47</td>
</tr>
<tr>
<td>VOC</td>
<td>5.5</td>
<td>0.20</td>
<td>0.057</td>
<td>0.015</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>CO</td>
<td>84</td>
<td>5.0</td>
<td>0.865</td>
<td>0.358</td>
<td>0.86</td>
<td>0.86</td>
<td>0.86</td>
</tr>
<tr>
<td><strong>Hazardous Air Pollutant</strong></td>
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<td>Arsenic</td>
<td>2.0E-04</td>
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<td>Beryllium</td>
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<td>Cadmium</td>
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<td>1.7E-05</td>
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<td>3.1E-05</td>
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<td>Chromium</td>
<td>1.4E-03</td>
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<td>Cobalt</td>
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<td>Lead</td>
<td>5.0E-04</td>
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<td>Manganese</td>
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<td>Mercury</td>
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<td>Nickel</td>
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<td>Selenium</td>
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<td>2.1E-03</td>
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<td>Benzene</td>
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<td>Dichlorobenzene</td>
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<td>Hexane</td>
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<tr>
<td>Phenol</td>
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<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>3.4E-03</td>
<td>3.5E-05</td>
<td>3.5E-05</td>
<td>3.5E-05</td>
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<td></td>
</tr>
<tr>
<td><strong>Total PAH Haps</strong></td>
<td>negl</td>
<td>negl</td>
<td>2.43E-04</td>
<td>2.43E-04</td>
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<td></td>
</tr>
<tr>
<td><strong>Total HAPs</strong></td>
<td>3.30E-03</td>
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<td>2.43E-04</td>
<td>2.43E-04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Worst Single HAP</strong> = (Hexane) (Formaldehyde) (Hexane)</td>
<td>1.9E-02</td>
<td>5.2E-03</td>
<td>0.024</td>
<td>1.9E-02</td>
<td>4.5E-03</td>
<td>1.9E-02</td>
<td></td>
</tr>
</tbody>
</table>

**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  
CO = Carbon Monoxide  
PM10 = Particulate Matter (<10 um)  
HAP = Hazardous Air Pollutant  
PM2.5 = Particulate Matter (<2.5 um)  
HCl = Hydrogen Chloride  
SO2 = Sulfur Dioxide  
NOx = Nitrous Oxides  
VOC = Volatile Organic Compounds
## Greenhouse Gas (CO2e) Emissions from Hot Oil Heater Fuel Combustion with Maximum Capacity < 100 MMBtu/hr

### Company Name: E & B Paving, Inc.
### Source Address: 5002 S. State Road 67, Anderson, IN 46013
### Permit Number: F 095-41346-03257
### Reviewer: William Altman

**Maximum Hot Oil Heater Fuel Input Rate** = 2.35 MMBtu/hr

**Natural Gas Usage** = 20.59 MMCF/yr

**No. 2 Fuel Oil Usage** = 147,042.86 gal/yr, 0.50% sulfur

### Unlimited/Uncontrolled Emissions

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas (lb/MMCF)</th>
<th>No. 2 Fuel Oil (lb/kgal)</th>
<th>Global Warming Potentials (GWP)</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>120,161.84</td>
<td>22,501.41</td>
<td>1</td>
<td>1,236.83</td>
</tr>
<tr>
<td>CH4</td>
<td>2.49</td>
<td>0.91</td>
<td>25</td>
<td>0.026</td>
</tr>
<tr>
<td>N2O</td>
<td>2.20</td>
<td>0.26</td>
<td>298</td>
<td>0.023</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>1,236.87</td>
</tr>
</tbody>
</table>

**CO2e Equivalent Emissions (tons/yr)** = 1,244.22

**Worse Case CO2e Emissions (tons/yr)** = 1,661.71

### 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 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 Usage (gals/yr) x Heating Value (MMBtu/gal) / [ton/2000 lbs]

### Abbreviations
- CH4 = Methane
- N2O = Nitrogen Dioxide
- CO2 = Carbon Dioxide
- PTE = Potential to Emit
The following calculations determine the unlimited/uncontrolled emissions from the combustion of natural gas and No. 2 fuel oil in the hot oil heating system, which is used to heat a specially designed transfer oil. The hot transfer oil is then pumped through a piping system that passes through the asphalt cement storage tanks, in order to keep the asphalt cement at the correct temperature.

Maximum Fuel Input Rate To Hot Oil Heater = 2.35 MMBtu/hr
Natural Gas Usage = 20.59 MMCF/yr, and
No. 2 Fuel Oil Usage = 147,042.86 gal/yr

### Emission Factors

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas (lb/ft³)</th>
<th>No. 2 Fuel Oil (lb/gal)</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Worse Case PTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>2.60E-08</td>
<td>2.68E-04</td>
<td>2.68E-04</td>
<td>0.002</td>
<td>0.002</td>
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<tr>
<td>CO</td>
<td>8.90E-06</td>
<td>0.0012</td>
<td>0.092</td>
<td>0.088</td>
<td>0.092</td>
</tr>
<tr>
<td>CO2</td>
<td>2.058.60</td>
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</table>

**Greenhouse Gas as CO2e**

<table>
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<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas (lb/ft³)</th>
<th>No. 2 Fuel Oil (lb/gal)</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Worse Case PTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>2.60E-08</td>
<td>2.68E-04</td>
<td>2.57E-04</td>
<td>2.68E-04</td>
<td></td>
</tr>
<tr>
<td>Acenaphthene</td>
<td>5.30E-07</td>
<td>3.90E-05</td>
<td>3.90E-05</td>
<td>3.90E-05</td>
<td></td>
</tr>
<tr>
<td>Anthracene</td>
<td>1.80E-07</td>
<td>1.32E-05</td>
<td>1.32E-05</td>
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<td></td>
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<tr>
<td>Benzo(b)fluoranthene</td>
<td>1.00E-07</td>
<td>7.35E-06</td>
<td>7.35E-06</td>
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<td></td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>4.40E-08</td>
<td>3.23E-06</td>
<td>3.23E-06</td>
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<td></td>
</tr>
<tr>
<td>Fluorene</td>
<td>3.20E-08</td>
<td>2.35E-06</td>
<td>2.35E-06</td>
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<td></td>
</tr>
<tr>
<td>Naphthalene</td>
<td>1.70E-08</td>
<td>1.25E-03</td>
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<td></td>
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<tr>
<td>Phenanthrene</td>
<td>4.90E-06</td>
<td>3.60E-04</td>
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<td></td>
</tr>
<tr>
<td>Pyrene</td>
<td>3.20E-08</td>
<td>2.35E-06</td>
<td>2.35E-06</td>
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<td></td>
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</tbody>
</table>

**Total HAPs** 1.96E-03

Worst Single HAP 1.25E-03 (Naphthalene)

### Methodology

Natural Gas Usage (MMCF/yr) = \([\text{Maximum Fuel Input Rate (MMBtu/hr)} \times 8,760 \text{ hrs/yr}] \times 1 \text{ MMCF/1,000 MMBtu}\)

No. 2 Fuel Oil Usage (gal/yr) = \([\text{Maximum Fuel Input Rate (MMBtu/hr)} \times 8,760 \text{ hrs/yr}] \times 1 \text{ gal/0.140 MMBtu}\)

Natural Gas: Potential to Emit (tons/yr) = (Natural Gas Usage (MMCF/yr))*Emission Factor (lb/MMCF)*1,000,000 CF/MMCF)*1 ton/2000 lbs

No. 2 Fuel Oil: Potential to Emit (tons/yr) = (No. 2 Fuel Oil Usage (gal/yr))*Emission Factor (lb/gal)*1 ton/2000 lbs

Unlimited Potential to Emit CO2e (tons/yr) = Unlimited Potential to Emit CO2 (ton/yr) x CO2 GWP (1)

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Table 11.1-13

*Note: There are no emission factors for CH4 and N2O available in either 40 CFR 98, Subpart C or AP-42 Chapter 11.1. Therefore, it is assumed that there are no CH4 and N2O emission anticipated from this process.

### Abbreviations

CO = Carbon Monoxide  
VOC = Volatile Organic Compound  
CO2 = Carbon Dioxide
### Appendix A.2: Limited Emissions Summary

**Reciprocating Internal Combustion Engines - Diesel Fuel**

**Output Rating** (=<600 HP)

**Company Name:** E & B Paving, Inc.

**Source Address:** 5002 S. State Road, Anderson, IN 46013

**Permit Number:** F 095-41346-03257

**Reviewer:** William Altman

<table>
<thead>
<tr>
<th>Output Horsepower Rating (hp)</th>
<th>0.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited Hours Operated per Year</td>
<td>0</td>
</tr>
<tr>
<td>Limited Throughput (hp-hr/yr)</td>
<td>0</td>
</tr>
<tr>
<td>Limited Diesel Fuel Usage (gal/yr)</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Emission Factors

<table>
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<tr>
<th>Pollutant</th>
<th>PM&lt;sub&gt;2.5&lt;/sub&gt;</th>
<th>PM&lt;sub&gt;10&lt;/sub&gt;</th>
<th>direct PM&lt;sub&gt;2.5&lt;/sub&gt;</th>
<th>SO&lt;sub&gt;2&lt;/sub&gt;</th>
<th>NO&lt;sub&gt;x&lt;/sub&gt;</th>
<th>VOC</th>
<th>CO</th>
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</thead>
<tbody>
<tr>
<td>Emission Factor in lb/hp-hr</td>
<td>0.0022</td>
<td>0.0022</td>
<td>0.0022</td>
<td>0.0021</td>
<td>0.0310</td>
<td>0.0025</td>
<td>0.0087</td>
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<tr>
<td>Emission Factor in lb/kgal&lt;sup&gt;1&lt;/sup&gt;</td>
<td>43.07</td>
<td>43.07</td>
<td>43.07</td>
<td>40.13</td>
<td>608.85</td>
<td>49.22</td>
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<tr>
<td>Limited Emission in tons/yr</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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</tbody>
</table>

<sup>1</sup>The 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.

<sup>2</sup>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)

#### Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Xylene</th>
<th>1,3-Butadiene</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
<th>Acrolein</th>
<th>Total PAH HAP&lt;sup&gt;3&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMBtu&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3.3E-04</td>
<td>4.0E-04</td>
<td>2.2E-04</td>
<td>3.9E-05</td>
<td>1.1E-03</td>
<td>7.6E-04</td>
<td>9.2E-05</td>
<td>1.6E-04</td>
</tr>
<tr>
<td>Emission Factor in lb/kgal&lt;sup&gt;4&lt;/sup&gt;</td>
<td>1.28E-01</td>
<td>5.60E-02</td>
<td>3.91E-02</td>
<td>5.36E-03</td>
<td>1.05E-01</td>
<td>1.27E-02</td>
<td>2.30E-02</td>
<td>1.05E-01</td>
</tr>
<tr>
<td>Limited Emission in tons/yr</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
</tr>
</tbody>
</table>

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

<sup>4</sup>The 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.

#### Green House Gas Emissions (GHG)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CO&lt;sub&gt;2&lt;/sub&gt;&lt;sup&gt;5&lt;/sup&gt;</th>
<th>CH&lt;sub&gt;4&lt;/sub&gt;&lt;sup&gt;6&lt;/sup&gt;</th>
<th>N&lt;sub&gt;2&lt;/sub&gt;O&lt;sup&gt;6&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/hp-hr</td>
<td>1.15</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Emission Factor in kg/MMBtu</td>
<td>0.003</td>
<td>0.0006</td>
<td>NA</td>
</tr>
<tr>
<td>Limited Emission in tons/yr</td>
<td>22.51E-01</td>
<td>0.91</td>
<td>0.18</td>
</tr>
</tbody>
</table>

<sup>5</sup>The 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.

<sup>6</sup>Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) * 1/10^6 (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

#### 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 (Btu/lb) * 1/7.1 (lb/gal)

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) / 2204.6 (lb/kg) / 2000/1 (ton/yr)

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298)
### Appendix A.2: Limited Emissions Summary

**Large Reciprocating Internal Combustion Engines - Diesel Fuel**

**Output Rating (>600 HP)**

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>E &amp; B Paving, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Address:</td>
<td>5002 S. State Road 67, Anderson, IN 46013</td>
</tr>
<tr>
<td>Permit Number:</td>
<td>F 095-41346-03287</td>
</tr>
<tr>
<td>Reviewer:</td>
<td>William Altman</td>
</tr>
</tbody>
</table>

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

#### Sulfur Content (S) of Fuel (% by weight)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Sulfur Content (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>0.00</td>
</tr>
<tr>
<td>PM10</td>
<td>0.00</td>
</tr>
<tr>
<td>PM2.5</td>
<td>0.00</td>
</tr>
<tr>
<td>CO</td>
<td>0.0573</td>
</tr>
<tr>
<td>CO2</td>
<td>7.76E-04</td>
</tr>
<tr>
<td>NOx</td>
<td>0.0006</td>
</tr>
<tr>
<td>SO2</td>
<td>0.00</td>
</tr>
<tr>
<td>VOC</td>
<td>0.00</td>
</tr>
<tr>
<td>CO2e</td>
<td>0.00</td>
</tr>
</tbody>
</table>

#### Green House Gas Emissions (GHG)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CH4</th>
<th>N2O</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>1.16</td>
<td>0.0006</td>
</tr>
<tr>
<td>CO2e Total in tons/yr</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

#### Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Xylene</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
<th>Acrylonitrile</th>
<th>Total PAHs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMBtu</td>
<td>7.76E-04</td>
<td>2.81E-04</td>
<td>1.93E-04</td>
<td>7.86E-05</td>
<td>2.52E-05</td>
<td>7.86E-06</td>
<td>2.12E-04</td>
</tr>
<tr>
<td>Emission Factor in lb/kgal</td>
<td>1.06E-01</td>
<td>3.85E-02</td>
<td>2.64E-02</td>
<td>1.08E-02</td>
<td>3.45E-03</td>
<td>1.08E-03</td>
<td>2.91E-02</td>
</tr>
<tr>
<td>Limited Emission in tons/yr</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
</tr>
</tbody>
</table>

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.

2. Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) * 1/10^6 (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

3. The AP-42 Chapter 3.4-1 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.

4. Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) * 1/10^6 (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

#### Methodology

Limited Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Limited Hours Operated per Year] * [Limited Diesel Fuel Usage (gal/yr)] / (7,000 Btu/hp-hr) * 1/10^6 (gal/lb) * 1/19,300 (Btu/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 Part 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 lb/ton) / (2,000 lb/ton)

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (296).

### Summary

- **Limited Emission of Total HAPs (tons/yr):** 0.00E+00
- **Limited Emission of Worst Case HAPs (tons/yr):** 0.00E+00
- **CO2e Total in tons/yr:** 0.00
Appendix A.2: Limited Emissions Summary
Asphalt Load-Out, Silo Filling, and Yard Emissions

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

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, $T = 325\,^\circ F$
Asphalt Volatility Factor, $V = -0.5$
Annual Asphalt Production Limitation = 736,000 tons/yr

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Load-Out</th>
<th>Silo Filling</th>
<th>On-Site Yard</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PM*</td>
<td>5.2E-04</td>
<td>5.9E-04</td>
<td>NA</td>
<td>0.19</td>
</tr>
<tr>
<td>Organic PM</td>
<td>3.4E-04</td>
<td>2.5E-04</td>
<td>NA</td>
<td>0.13</td>
</tr>
<tr>
<td>TOC</td>
<td>0.004</td>
<td>0.012</td>
<td>0.001</td>
<td>1.53</td>
</tr>
<tr>
<td>CO</td>
<td>0.001</td>
<td>0.001</td>
<td>3.5E-04</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Total PM/HAPs: 0.099
Total VOC/HAPs: 0.023
Total non-VOC/HAPs: 0.12
Total non-VOC/non-HAPs: 0.11

PM* = Not Applicable (no AP-42 Emission Factor)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>1.44</th>
<th>4.50</th>
<th>0.4</th>
<th>6.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total VOCs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total HAPs</td>
<td>0.03</td>
<td>0.07</td>
<td>0.006</td>
<td>0.11</td>
</tr>
<tr>
<td>Worst Single HAP</td>
<td></td>
<td>0.033</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(formaldehyde)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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)


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
### Organic Particulate-Based Compounds (Table 11.1-15)

<table>
<thead>
<tr>
<th>PAH HAPs</th>
<th>CASRN</th>
<th>Category</th>
<th>HAP Type</th>
<th>Source</th>
<th>Load-out and Onsite Yard (% by weight of Total Organic PM)</th>
<th>Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)</th>
<th>Limited Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acenaphthene</td>
<td>83-32-9</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.26%</td>
<td>0.47%</td>
<td>3.3E-04</td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>203-96-8</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.028%</td>
<td>0.014%</td>
<td>3.5E-05</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120-12-7</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.07%</td>
<td>0.13%</td>
<td>8.8E-05</td>
</tr>
<tr>
<td>Benzo[a]anthracene</td>
<td>56-55-3</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.019%</td>
<td>0.056%</td>
<td>2.4E-05</td>
</tr>
<tr>
<td>Benzo[b]fluoranthene</td>
<td>205-99-2</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.0076%</td>
<td>0</td>
<td>9.6E-06</td>
</tr>
<tr>
<td>Benzo[k]fluoranthene</td>
<td>207-08-9</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.0022%</td>
<td>0</td>
<td>2.8E-06</td>
</tr>
<tr>
<td>Benzo[g,h,i]perylene</td>
<td>191-24-2</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.0019%</td>
<td>0</td>
<td>2.4E-06</td>
</tr>
<tr>
<td>Benzo[a]pyrene</td>
<td>130-92-8</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.0023%</td>
<td>0</td>
<td>2.8E-06</td>
</tr>
<tr>
<td>Benzo[e]pyrene</td>
<td>192-97-2</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.0078%</td>
<td>0.0009%</td>
<td>9.8E-06</td>
</tr>
<tr>
<td>Chrysene</td>
<td>218-01-9</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.103%</td>
<td>0.21%</td>
<td>1.3E-04</td>
</tr>
<tr>
<td>Dibenzo[a,h]anthracene</td>
<td>53-70-3</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.00037%</td>
<td>0</td>
<td>4.7E-07</td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>205-44-0</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.05%</td>
<td>0.15%</td>
<td>6.3E-05</td>
</tr>
<tr>
<td>Fluorene</td>
<td>86-73-7</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.77%</td>
<td>1.01%</td>
<td>9.7E-04</td>
</tr>
<tr>
<td>Indeno[1,2,3-cd]pyrene</td>
<td>193-39-5</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.00047%</td>
<td>0</td>
<td>5.9E-07</td>
</tr>
<tr>
<td>2-Methylnaphthalene</td>
<td>91-57-6</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>2.38%</td>
<td>5.27%</td>
<td>3.0E-03</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>1.25%</td>
<td>1.82%</td>
<td>1.8E-03</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>90-14-1</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.22%</td>
<td>0.03%</td>
<td>2.8E-05</td>
</tr>
<tr>
<td>Pyrene</td>
<td>128-00-0</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>Organic PM</td>
<td>0.81%</td>
<td>1.80%</td>
<td>1.0E-03</td>
</tr>
<tr>
<td>Total PAH HAPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.007</td>
<td>0.011</td>
<td>0.018</td>
</tr>
</tbody>
</table>

Other semi-volatile HAPs

| Phenol         | PM/HAP | Organic PM | 1.18% | 0 | 1.5E-03 | 0 | 0 | 1.5E-03 |

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

**Methodology**

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


**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)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CASRN</th>
<th>Category</th>
<th>HAP Type</th>
<th>Source</th>
<th>Speciation Profile</th>
<th>Limited Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Load-out and Onsite Yard (% by weight of TOC)</td>
<td>Silo Filling and Asphalt Storage Tank (% by weight of TOC)</td>
<td>Load-out</td>
</tr>
<tr>
<td>VOL</td>
<td>VOC</td>
<td>---</td>
<td>TOC</td>
<td>94%</td>
<td>100%</td>
<td>1.44</td>
</tr>
<tr>
<td>non-VOL/non-HAP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methane</td>
<td>74-82-8</td>
<td>non-VOL/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td>6.50%</td>
<td>0.26%</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>non-VOL/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.04%</td>
<td>0.055%</td>
</tr>
<tr>
<td>Ethylene</td>
<td>74-85-1</td>
<td>non-VOL/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.71%</td>
<td>1.10%</td>
</tr>
<tr>
<td>Total non-VOL/non-HAP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>7.30%</td>
<td>1.40%</td>
<td>0.112</td>
<td>0.063</td>
<td>0.030</td>
<td>0.20</td>
</tr>
<tr>
<td>Volatile organic HAPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.052%</td>
<td>0.032%</td>
</tr>
<tr>
<td>Bromomethane</td>
<td>74-83-9</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0086%</td>
<td>0.0049%</td>
</tr>
<tr>
<td>2-Butanone</td>
<td>78-93-3</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.049%</td>
<td>0.039%</td>
</tr>
<tr>
<td>Carbon Disulfide</td>
<td>75-15-0</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.013%</td>
<td>0.016%</td>
</tr>
<tr>
<td>Chloroethane</td>
<td>75-00-3</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0021%</td>
<td>0.004%</td>
</tr>
<tr>
<td>Chloromethane</td>
<td>74-87-3</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.015%</td>
<td>0.023%</td>
</tr>
<tr>
<td>Cumene</td>
<td>92-82-8</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.11%</td>
<td>0</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.28%</td>
<td>0.038%</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.088%</td>
<td>0.89%</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>100-54-3</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.15%</td>
<td>0.10%</td>
</tr>
<tr>
<td>Isocyanate</td>
<td>540-84-1</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0018%</td>
<td>0.0031%</td>
</tr>
<tr>
<td>Methylene Chloride</td>
<td>75-09-2</td>
<td>non-VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0</td>
<td>0.00027%</td>
</tr>
<tr>
<td>MTBE</td>
<td>1634-04-4</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Styrene</td>
<td>100-42-2</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0073%</td>
<td>0.0004%</td>
</tr>
<tr>
<td>Tetrachloroethene</td>
<td>127-18-4</td>
<td>non-VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0077%</td>
<td>0</td>
</tr>
<tr>
<td>Toluene</td>
<td>100-88-3</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.21%</td>
<td>0.062%</td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
<td>71-55-6</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trichloroethene</td>
<td>79-01-8</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trichlorofluoromethane</td>
<td>75-69-4</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0015%</td>
<td>0</td>
</tr>
<tr>
<td>m,p-Xylene</td>
<td>1330-20-7</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.41%</td>
<td>0.20%</td>
</tr>
<tr>
<td>p-Xylene</td>
<td>95-47-6</td>
<td>VOL/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.08%</td>
<td>0.037%</td>
</tr>
<tr>
<td>Total volatile organic HAPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.25%</td>
<td>1.30%</td>
<td>0.023</td>
<td>0.958</td>
<td>0.006</td>
<td>0.088</td>
</tr>
</tbody>
</table>

### Methodology

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


### 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: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

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.

\[ Ef = 1.7 \times (s/1.5) \times (365-p)/235 \times (f/15) \]

where

- \( Ef \) = 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

<table>
<thead>
<tr>
<th>Material</th>
<th>Silt Content (wt %)*</th>
<th>Emission Factor (lb/acre/day)</th>
<th>Maximum Anticipated Pile Size (acres)**</th>
<th>PTE of PM (tons/yr)</th>
<th>PTE of PM10/PM2.5 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>2.6</td>
<td>3.01</td>
<td>0.75</td>
<td>0.412</td>
<td>0.144</td>
</tr>
<tr>
<td>Limestone</td>
<td>1.6</td>
<td>1.85</td>
<td>0.75</td>
<td>0.253</td>
<td>0.089</td>
</tr>
<tr>
<td>RAP</td>
<td>0.5</td>
<td>0.58</td>
<td>0.75</td>
<td>0.079</td>
<td>0.028</td>
</tr>
<tr>
<td>Gravel</td>
<td>1.6</td>
<td>1.85</td>
<td>0.75</td>
<td>0.253</td>
<td>0.089</td>
</tr>
<tr>
<td>Shingles</td>
<td>0.5</td>
<td>0.58</td>
<td>0.75</td>
<td>0.079</td>
<td>0.028</td>
</tr>
<tr>
<td>Slag</td>
<td>3.8</td>
<td>4.40</td>
<td>0.75</td>
<td>0.602</td>
<td>0.211</td>
</tr>
</tbody>
</table>

**Maximum anticipated pile size (acres) provided by the source.

\[ \text{PTE of PM (tons/yr)} = (\text{Emission Factor (lb/acre/day)}) \times (\text{Maximum Pile Size (acres)}) \times (\text{ton/2000 lbs}) \times (365 \text{ days/yr}) \]

\[ \text{PTE of PM10/PM2.5 (tons/yr)} = (\text{Potential PM Emissions (tons/yr)}) \times 35\% \]

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

**Methodology

Abbreviations

RAP = recycled asphalt pavement
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

Material Processing, Handling, Crushing, Screening, and Conveying

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

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.

\[
Ef = k*(0.0032)*(U/5)^{1.3} / (M/2)^{1.4}
\]

where:
- \( Ef \) = 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)

\[
EF (PM) = 2.27E-03 \text{ lb PM/ton of material handled}
\]
\[
EF (PM10) = 1.07E-03 \text{ lb PM10/ton of material handled}
\]
\[
EF (PM2.5) = 1.62E-04 \text{ lb PM2.5/ton of material handled}
\]

Annual Asphalt Production Limitation = 738,066 tons/yr
Percent Asphalt Cement/Binder (weight %) = 5.0%
Maximum Material Handling Throughput = 701,163 tons/yr

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Limited PTE of PM (tons/yr)</th>
<th>Limited PTE of PM10 (tons/yr)</th>
<th>Limited PTE of PM2.5 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck unloading of materials into storage piles</td>
<td>0.79</td>
<td>0.38</td>
<td>0.06</td>
</tr>
<tr>
<td>Front-end loader dumping of materials into feeder bins</td>
<td>0.79</td>
<td>0.38</td>
<td>0.06</td>
</tr>
<tr>
<td>Conveyor dropping material into dryer/mixer or batch tower</td>
<td>0.79</td>
<td>0.38</td>
<td>0.06</td>
</tr>
<tr>
<td>Total (tons/yr)</td>
<td>2.38</td>
<td>1.13</td>
<td>0.17</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Uncorrected Emission Factor for PM (lbs/ton)</th>
<th>Uncorrected Emission Factor for PM10 (lbs/ton)</th>
<th>Limited PTE of PM (tons/yr)**</th>
<th>Limited PTE of PM10/PM2.5 (tons/yr)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crushing</td>
<td>0.0054</td>
<td>0.0024</td>
<td>1.89</td>
<td>0.34</td>
</tr>
<tr>
<td>Screening</td>
<td>0.025</td>
<td>0.0087</td>
<td>8.76</td>
<td>3.05</td>
</tr>
<tr>
<td>Conveying</td>
<td>0.003</td>
<td>0.0011</td>
<td>1.05</td>
<td>0.39</td>
</tr>
</tbody>
</table>

Limited Potential to Emit (tons/yr) = 11.71

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

#### 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).

### Company Name: E & B Paving, Inc.

### Source Address: 502 S. Road E 57, Anderson, IN 46013

### Permit Number: F 095-41346-03227

### Reviewer: William Altman

#### Average  Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]

#### Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]

#### Maximum one-way miles (miles/yr) = [Maximum trips per year (trip/yr)] * [Maximum one-way distance (mi/trip)]

#### Maximum one-way distance (mi/trip) = [Maximum Weight of Vehicle and Load (tons/trip)] / [Average Vehicle Weight Per Trip (ton/trip)]

#### Maximum Weight of Vehicle and Load (tons/trip) = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]

#### Maximum asphalt cement/binder throughputs = [Annual asphalt production limitation (tons/yr)] * [Percent asphalt cement/binder (weight %)]

#### Mitigated emission factor, $E_{ext}$ = $E * [(365 - P)/365]$

where $P$ = number of days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

#### Total

### Abbreviations

- PM = Particulate Matter
- PM10 = Particulate Matter (<10 um)
- PM2.5 = Particulate Matter (<2.5 um)
- PTE = Potential to Emit
- TSP = Total Suspended Particles
- 20.3 = silt content of unpaved roads (AP-42 Table 13.2.2-1 Iron and Steel Production)
- 3.26 = particle size multiplier (AP-42 Table 13.2.2-2 for industrial roads)
- 125 = particle size multiplier (AP-42 Table 13.2.2-2 for paveways)
- 36,903 = average vehicle weight (provided by source)
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).

### Mitigated Emission Factor, $E_{ext}$

$E_{ext} = Ef * [1 - (p/4N)]$

where $p = \text{rainfall (inches) per year}$

### Emission Factors for Particulate Matter

- PM10 = Particulate Matter
- PM2.5 = Particulate Matter
- E & B Paving, Inc.
- Source Address: 5002 S. State Road 67, Anderson, IN 46013
- Permit Number: F 095-41346-03257
- Reviewed: William Altman

#### Paved Roads at Industrial Site

<table>
<thead>
<tr>
<th>Process</th>
<th>Vehicle Type</th>
<th>Mitigated PTE of PM (After Control) (tons/yr)</th>
<th>Mitigated PTE of PM2.5 (After Control) (tons/yr)</th>
<th>Mitigated PTE of PM10 (After Control) (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate Concrete Truck Leave Full</td>
<td>Concrete Truck (16 CY)</td>
<td>20.3</td>
<td>7.4</td>
<td>12.0</td>
</tr>
<tr>
<td>Aggregate Concrete Truck Enter Empty</td>
<td>Concrete Truck (16 CY)</td>
<td>22.4</td>
<td>8.8</td>
<td>13.6</td>
</tr>
<tr>
<td>Aggregate/Concrete Truck Leave Full</td>
<td>Aggregate/Concrete Truck (16 CY)</td>
<td>19.0</td>
<td>7.0</td>
<td>12.0</td>
</tr>
<tr>
<td>Aggregate/Concrete Truck Enter Empty</td>
<td>Aggregate/Concrete Truck (16 CY)</td>
<td>20.3</td>
<td>8.8</td>
<td>12.0</td>
</tr>
<tr>
<td>Asphalt Concrete Truck Leave Full</td>
<td>Asphalt Concrete Truck (3 CY)</td>
<td>20.3</td>
<td>8.8</td>
<td>12.0</td>
</tr>
<tr>
<td>Asphalt Concrete Truck Enter Empty</td>
<td>Asphalt Concrete Truck (3 CY)</td>
<td>20.3</td>
<td>8.8</td>
<td>12.0</td>
</tr>
</tbody>
</table>

**Abbreviations**

- PM = Particulate Matter
- PM10 = Particulate Matter
- PM2.5 = Particulate Matter
- E & B Paving, Inc.
- Source Address: 5002 S. State Road 67, Anderson, IN 46013
- Permit Number: F 095-41346-03257
- Reviewed: William Altman

#### Paved Roads

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).
Limited VOC Emissions from the Sum of the Liquid Binders = 30.8 tons/yr

### Volatile Organic Compounds

<table>
<thead>
<tr>
<th>Liquid Binder</th>
<th>Maximum weight % of VOC solvent in binder</th>
<th>Weight % of VOC solvent in binder that evaporates</th>
<th>VOC Solvent Usage Limitation (tons/yr)</th>
<th>Limited PTE of VOC (tons/yr)</th>
<th>Liquid Binder Adjustment Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut back asphalt rapid cure</td>
<td>25.3%</td>
<td>95.0%</td>
<td>32.5</td>
<td>30.8</td>
<td>1.053</td>
</tr>
<tr>
<td>Cut back asphalt medium cure</td>
<td>28.6%</td>
<td>70.0%</td>
<td>44.1</td>
<td>30.8</td>
<td>1.429</td>
</tr>
<tr>
<td>Cut back asphalt slow cure</td>
<td>20.0%</td>
<td>25.0%</td>
<td>123.4</td>
<td>30.8</td>
<td>4.000</td>
</tr>
<tr>
<td>Emulsified asphalt with solvent</td>
<td>15.0%</td>
<td>46.4%</td>
<td>66.5</td>
<td>30.8</td>
<td>2.155</td>
</tr>
<tr>
<td>Other asphalt with solvent binder</td>
<td>25.9%</td>
<td>2.5%</td>
<td>1233.7</td>
<td>30.8</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Worst Case Limited PTE of VOC = 30.8

### Hazardous Air Pollutants

<table>
<thead>
<tr>
<th>Hazardous Air Pollutant (HAP) Content (% by weight)*</th>
<th>For Various Petroleum Solvents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatile Organic HAP</td>
<td>CAS#</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------</td>
</tr>
<tr>
<td>n-Butane</td>
<td>74-90-8</td>
</tr>
<tr>
<td>2,2,4-Trimethylpentane</td>
<td>96-05-1</td>
</tr>
<tr>
<td>Acenaphthene</td>
<td>120-12-7</td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>206-66-8</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120-19-4</td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
</tr>
<tr>
<td>Benzo(a)anthracene</td>
<td>50-55-3</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>50-32-8</td>
</tr>
<tr>
<td>Benzo(g,h,i)perylene</td>
<td>191-24-2</td>
</tr>
<tr>
<td>Biphenyl</td>
<td>90-05-4</td>
</tr>
<tr>
<td>Chrysene</td>
<td>218-01-9</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>206-44-0</td>
</tr>
<tr>
<td>Fluorene</td>
<td>80-17-7</td>
</tr>
<tr>
<td>Indeno(1,2,3-cd)pyrene</td>
<td>183-39-5</td>
</tr>
<tr>
<td>Methyl-terti-butylether</td>
<td>1634-04-4</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>85-05-1</td>
</tr>
<tr>
<td>Pyrene</td>
<td>139-00-0</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
</tr>
<tr>
<td>Total Xylenes</td>
<td>1330-20-7</td>
</tr>
<tr>
<td>Total Organic HAPs</td>
<td>28.08%</td>
</tr>
<tr>
<td>Worst Single HAP</td>
<td>9.09%</td>
</tr>
</tbody>
</table>

### 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)]

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: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

Gasoline Throughput = 1,300 gallons/day = 474.5 kgal/yr

### Volatile Organic Compounds

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Emission Factor (lb/kgal of throughput)</th>
<th>PTE of VOC (tons/yr)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filling storage tank (balanced submerged filling)</td>
<td>0.3</td>
<td>0.07</td>
</tr>
<tr>
<td>Tank breathing and emptying</td>
<td>1.0</td>
<td>0.24</td>
</tr>
<tr>
<td>Vehicle refueling (displaced losses - controlled)</td>
<td>1.1</td>
<td>0.26</td>
</tr>
<tr>
<td>Spillage</td>
<td>0.7</td>
<td>0.17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0.74</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Hazardous Air Pollutants

<table>
<thead>
<tr>
<th></th>
<th>Worst Case Total HAP Content of VOC solvent (weight %)* = 28.08%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Worst Case Single HAP Content of VOC solvent (weight %)* = 9.0%</td>
</tr>
<tr>
<td>Limited PTE of Total HAPs (tons/yr) = 0.19</td>
<td>Xylenes</td>
</tr>
<tr>
<td>Limited PTE of Single HAP (tons/yr) = 0.07</td>
<td>Xylenes</td>
</tr>
</tbody>
</table>

### 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)]


### Abbreviations

VOC = Volatile Organic Compounds
PTE = Potential to Emit

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:

Gasoline Throughput = 1,300 gallons/day = 474.5 kgal/yr

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:
### Appendix A.1: Unlimited Emissions Calculations

**Entire Source - Drum Mix**

**Company Name:** E & B Paving, Inc.  
**Source Address:** 5002 S. State Road 67, Anderson, IN 46013  
**Permit Number:** F 095-41346-03257  
**Reviewer:** William Altman

#### Maximum Hourly Asphalt Production
- **Maximum Hourly Asphalt Production:** 360 ton/hr

#### Maximum Annual Asphalt Production
- **Maximum Annual Asphalt Production:** 3,066,000 ton/yr

#### Maximum Annual Blast Furnace Slag Usage
- **Maximum Annual Blast Furnace Slag Usage:** 1,287,720 ton/yr

#### Maximum Annual Steel Slag Usage
- **Maximum Annual Steel Slag Usage:** 1,287,720 ton/yr

#### Maximum Dryer Fuel Input Rate
- **Maximum Dryer Fuel Input Rate:** 120.0 MMBtu/hr

#### Natural Gas Usage
- **Natural Gas Usage:** 1,051 MMCF/yr

#### No. 2 Fuel Oil Usage
- **No. 2 Fuel Oil Usage:** 7,508,571 gal/yr, 0.50% sulfur

#### No. 4 Fuel Oil Usage
- **No. 4 Fuel Oil Usage:** 7,508,571 gal/yr, 0.66% sulfur

#### Residual (No. 5 or No. 6) Fuel Oil Usage
- **Residual (No. 5 or No. 6) Fuel Oil Usage:** 7,508,571 gal/yr, 0.50% sulfur

#### Propane Usage
- **Propane Usage:** 11,615,470 gal/yr, 0.20 gr/100 ft³ sulfur

#### Butane Usage
- **Butane Usage:** 10,792,608 gal/yr, 0.22 gr/100 ft³ sulfur

#### Used/Waste Oil Usage
- **Used/Waste Oil Usage:** 7,508,571 gal/yr, 1.00% sulfur, 0.50% ash, 0.20% chlorine, 0.010% lead

#### Diesel Fuel Usage - Generator < 600 HP
- **Diesel Fuel Usage - Generator < 600 HP:** 0 gal/yr, 0.50% sulfur

#### Diesel Fuel Usage - Generator > 600 HP
- **Diesel Fuel Usage - Generator > 600 HP:** 0 gal/yr, 0.50% sulfur

#### Unlimited PM Dryer/Mixer Emission Factor
- **Unlimited PM Dryer/Mixer Emission Factor:** 28.0 lb/ton of asphalt production

#### Unlimited PM10 Dryer/Mixer Emission Factor
- **Unlimited PM10 Dryer/Mixer Emission Factor:** 6.5 lb/ton of asphalt production

#### Unlimited PM2.5 Dryer/Mixer Emission Factor
- **Unlimited PM2.5 Dryer/Mixer Emission Factor:** 1.5 lb/ton of asphalt production

#### Unlimited VOC Dryer/Mixer Emission Factor
- **Unlimited VOC Dryer/Mixer Emission Factor:** 0.032 lb/ton of asphalt production

#### Unlimited CO Dryer/Mixer Emission Factor
- **Unlimited CO Dryer/Mixer Emission Factor:** 0.13 lb/ton of asphalt production

#### Unlimited Blast Furnace Slag SO2 Dryer/Mixer Emission Factor
- **Unlimited Blast Furnace Slag SO2 Dryer/Mixer Emission Factor:** 0.74 lb/ton of slag processed

#### Unlimited Steel Slag SO2 Dryer/Mixer Emission Factor
- **Unlimited Steel Slag SO2 Dryer/Mixer Emission Factor:** 0.0014 lb/ton of slag processed

### Unlimited/Uncontrolled Emissions

<table>
<thead>
<tr>
<th>Process Description</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>CO2e</th>
<th>Total HAPs</th>
<th>Worst Case HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ducted Emissions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dryer Fuel Combustion (worst case)</td>
<td>120.14</td>
<td>95.73</td>
<td>95.73</td>
<td>589.42</td>
<td>176.45</td>
<td>5.94</td>
<td>45.33</td>
<td>93,924.66</td>
<td>54.15</td>
<td>49.56</td>
</tr>
<tr>
<td>Dryer/Mixer (Process)</td>
<td>42,924.00</td>
<td>9,964.50</td>
<td>2,299.50</td>
<td>88.91</td>
<td>84.32</td>
<td>49.06</td>
<td>199.29</td>
<td>51,048.90</td>
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<td>Dryer/Mixer Slag Processing (worst case)</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>Hot Oil Heater Fuel Combustion/Process (worst case)</td>
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<td>0.24</td>
<td>0.24</td>
<td>0.22</td>
<td>1.47</td>
<td>0.06</td>
<td>0.86</td>
<td>0.024</td>
<td>0.019</td>
<td>(hexane)</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diesel-Fired Generator &gt; 600 HP</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>Worst Case Emissions</strong></td>
<td>42,924.15</td>
<td>9,964.74</td>
<td>2,299.74</td>
<td>1,071.10</td>
<td>177.92</td>
<td>177.92</td>
<td>200.15</td>
<td>95,983.26</td>
<td>54.17</td>
<td>49.56</td>
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<tr>
<td><strong>Fugitive Emissions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphalt Load-Out, On-Site Yard</td>
<td>1.70</td>
<td>1.70</td>
<td>1.70</td>
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<td>0</td>
<td>26.36</td>
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<td>0.44</td>
<td>0.14</td>
<td>(formaldehyde)</td>
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<tr>
<td>Material Storage Piles</td>
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<td>0.98</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>Material Processing and Handling</td>
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<td>Unpaved and Paved Roads (worst case)</td>
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<td>97.31</td>
<td>97.31</td>
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<td>Cold Mix Asphalt Production</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9,910.71</td>
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<td>Service Fuel Transfer and Dispensing</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.19</td>
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<td>Volatile Organic Liquid Storage Vessels</td>
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<td>0</td>
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<td>0</td>
<td>negl</td>
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<tr>
<td><strong>Total Fugitive Emissions</strong></td>
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<td>10.04</td>
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<td>0.00</td>
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<td>9,911.34</td>
<td>3.31618</td>
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<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PM</strong></td>
<td><strong>PM10</strong></td>
<td><strong>PM2.5</strong></td>
<td><strong>SO2</strong></td>
<td><strong>NOx</strong></td>
</tr>
<tr>
<td>Dryer/Mixer (Process)</td>
<td>42,924.00</td>
<td>9,964.50</td>
<td>2,299.50</td>
<td>88.91</td>
</tr>
<tr>
<td>Diesel-Fired Generator &lt; 600 HP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diesel-Fired Generator &gt; 600 HP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Worst Case Emissions</strong></td>
<td>42,924.15</td>
<td>9,964.74</td>
<td>2,299.74</td>
<td>1,071.10</td>
</tr>
</tbody>
</table>

**Unlimited/Uncontrolled Potential to Emit**

**Criteria Pollutants**

- **PM**: 42,924.15 tons/yr
- **PM10**: 9,964.74 tons/yr
- **PM2.5**: 2,299.74 tons/yr
- **SO2**: 1,071.10 tons/yr
- **NOx**: 177.92 tons/yr
- **VOC**: 177.92 tons/yr
- **CO**: 200.15 tons/yr
- **CO2e**: 95,983.26 tons/yr

**Greenhouse Gas Pollutants**

- **Total HAPs**: 54.17 tons/yr

**Hazardous Air Pollutants**

- **Worst Case HAP**: 49.56 tons/yr

**Fuel component percentages provided by the source.**
### Maximum Capacity

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas (lb/MMCF)</th>
<th>No. 2 Fuel Oil (lb/MMBtu)</th>
<th>No. 4 Fuel Oil (lb/MMBtu)</th>
<th>Propane (lb/MMBtu)</th>
<th>Butane (lb/MMBtu)</th>
<th>Used/Waste Oil (lb/MMBtu)</th>
<th>Natural Gas (lb/MMCF)</th>
<th>No. 2 Fuel Oil (lb/MMBtu)</th>
<th>No. 4 Fuel Oil (lb/MMBtu)</th>
<th>Propane (lb/MMBtu)</th>
<th>Butane (lb/MMBtu)</th>
<th>Used/Waste Oil (lb/MMBtu)</th>
<th>WORSE CASE FUEL (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 2 Fuel Oil</td>
<td>70</td>
<td>7.5</td>
<td>7.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td>7.5</td>
<td>7.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>No. 4 Fuel Oil</td>
<td>70</td>
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<td>7.5</td>
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<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td>7.5</td>
<td>7.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Propane</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td>7.5</td>
<td>7.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Butane</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td>7.5</td>
<td>7.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Used/Waste Oil</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td>7.5</td>
<td>7.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

### Unlimited/Uncontrolled Emissions

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas Usage (MMCF/yr)</th>
<th>No. 2 Fuel Oil Usage (MMBtu/hr)</th>
<th>No. 4 Fuel Oil Usage (MMBtu/hr)</th>
<th>Propane Usage (gal/yr)</th>
<th>Butane Usage (gal/yr)</th>
<th>Used/Waste Oil Usage (gal/yr)</th>
<th>Maximum Natural Gas Usage (MMCF/yr)</th>
<th>No. 2 Fuel Oil Usage (MMBtu/hr)</th>
<th>No. 4 Fuel Oil Usage (MMBtu/hr)</th>
<th>Propane Usage (gal/yr)</th>
<th>Butane Usage (gal/yr)</th>
<th>Used/Waste Oil Usage (gal/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>70</td>
<td>7.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td>7.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>No. 2 Fuel Oil</td>
<td>70</td>
<td>7.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td>7.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>No. 4 Fuel Oil</td>
<td>70</td>
<td>7.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td>7.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Propane</td>
<td>500</td>
<td>500</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td>7.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Butane</td>
<td>500</td>
<td>500</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td>7.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
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<tr>
<td>Used/Waste Oil</td>
<td>5000</td>
<td>5000</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
<td>7.0</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
</tbody>
</table>

### Methodology

- **Total PAH-HaPs**:
  - No. 4 Fuel Oil Usage:
    - PM-2.5 = Particulate Matter
    - HAP = Hazardous Air Pollutant

- **VOC**:
  - Volatile Organic Compounds

- **PM**:
  - Particulate Matter

- **PM-2.5**:
  - Particulate Matter (≤ 2.5 μm)

- **NOx**:
  - Nitric Oxides

- **SO2**:
  - Sulfur Dioxide

- **HAP**:
  - Hazardous Air Pollutant

**Notes**:
- *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.*

---

**Sources of AP-42 Emission Factors for fuel combustion**:
- Natural Gas: AP-42 Chapter 14 (dated 7/96), Tables 1-4.1, 1-4.2, 1-4.3, 1-4.4
- Propane and Butane: AP-42 Chapter 15 (dated 7/96), Tables 1-5.1 (assuming PM = NOx)
- Waste Oil: AP-42 Chapter 11 (dated 10/96), Tables 11-1.1, 11-1.2, 11-1.3, 11-1.4, and 11-1.5

---

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

**Dryer/Mixer Fuel Combustion with Maximum Capacity > 100 MMBtu/hr**

**Company Name:** E & B Paving, Inc.

**Source Address:** 5602 S. State Road 67, Anderson, IN 46013

**Permit Number:** F095-1346-03257

**Reviewer:** William Altheran

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.
### Unlimited/Uncontrolled Emissions

<table>
<thead>
<tr>
<th>Name</th>
<th>CO2e Fraction (tons/yr)</th>
<th>Global Warming Potential (GWP)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natural Gas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 2 Fuel Oil Usage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 4 Fuel Oil Usage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual (No. 5 or No. 6 Fuel Oil Usage)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propane Usage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butane Usage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used/Waste Oil Usage</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CO2</strong></td>
<td>63,157.06</td>
<td>22,501.41</td>
</tr>
<tr>
<td><strong>CH4</strong></td>
<td>3.94</td>
<td>0.97</td>
</tr>
<tr>
<td><strong>N2O</strong></td>
<td>3.94</td>
<td>0.97</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>63,296.95</td>
<td>22,501.41</td>
</tr>
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</table>

### Unlimited/Uncontrolled Potential to Emit (tons/yr)

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CO2e for worst case fuel (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>22,501.41</td>
</tr>
<tr>
<td>CH4</td>
<td>0.97</td>
</tr>
<tr>
<td>N2O</td>
<td>0.97</td>
</tr>
</tbody>
</table>

### CO2e Equivalent Emissions (tons/yr)

<table>
<thead>
<tr>
<th>Name</th>
<th>CO2e Equivalent Emissions (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>63,534.41</td>
</tr>
<tr>
<td>Fuel Oil</td>
<td>84,853.28</td>
</tr>
<tr>
<td>Propane</td>
<td>82,970.15</td>
</tr>
<tr>
<td>Butane</td>
<td>82,684.97</td>
</tr>
<tr>
<td>Used/Waste Oil</td>
<td>82,688.99</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>78,241.57</td>
</tr>
</tbody>
</table>

### Methodology

<table>
<thead>
<tr>
<th>Fuel Usage from TSD Appendix A.1, page 1 of 14</th>
<th>Abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel from Natural Gas (MMBtu/hr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMBtu/10^6 Btu]</td>
<td>CO2 = Carbon Dioxide</td>
</tr>
<tr>
<td>Fuel from Fuel Oil (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.102 MMBtu]</td>
<td>CH4 = Methane</td>
</tr>
<tr>
<td>Fuel from Butane (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0915 MMBtu]</td>
<td>N2O = Nitrogen Dioxide</td>
</tr>
<tr>
<td>Fuel from Butane (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0915 MMBtu]</td>
<td>Waste Oil</td>
</tr>
<tr>
<td>Fuel from Propane (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0915 MMBtu]</td>
<td>Waste Oil</td>
</tr>
<tr>
<td>Fuel from Butane (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0915 MMBtu]</td>
<td>Waste Oil</td>
</tr>
<tr>
<td>Fuel from Used/Waste Oil (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0915 MMBtu]</td>
<td>Waste Oil</td>
</tr>
<tr>
<td>Fuel from Used/Waste Oil (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0915 MMBtu]</td>
<td>Waste Oil</td>
</tr>
</tbody>
</table>

### Abbreviations

- 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)]
- EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of the Fuel Oil (MMBtu/gal)]
- EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (1,000 gal/MMBtu)]
- EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (1000 gal/kgal)]
- EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (1000 gal/kgal)]
- EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (1000 gal/kgal)]
- EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (1000 gal/kgal)]

### Sources of Emission Factors for fuel combustion

- 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]
- Butane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.102 MMBtu]
- Propane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0915 MMBtu]
- Used/Waste Oil Usage = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0915 MMBtu]
**Appendix A.1: Unlimited Emissions Calculations**

**Dryer/Mixer - Process Emissions**

**Company Name:** E & B Paving, Inc.  
**Source Address:** 5002 S. State Road 67, Anderson, IN 46013  
**Permit Number:** F 095-41346-03257  
**Reviewer:** William Altman

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

- **Maximum Hourly Asphalt Production:** 350 tons/hr
- **Maximum Annual Asphalt Production:** 3,066,000 tons/yr

### Criteria Pollutant

<table>
<thead>
<tr>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
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<tbody>
<tr>
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<td>PM2.5</td>
<td>1.5</td>
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<td>1.5</td>
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<td>2295.5</td>
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<td>NOX</td>
<td>0.005</td>
<td>0.011</td>
<td>0.018</td>
<td>5.2</td>
<td>16.9</td>
</tr>
<tr>
<td>VOC</td>
<td>0.028</td>
<td>0.055</td>
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<td>39.9</td>
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### PM10

<table>
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### SO2

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### NOX

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### VOC

<table>
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<tbody>
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### CO

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>CO</td>
</tr>
</tbody>
</table>

### Hazardous Air Pollutant

<p>| Drum-Mix Plant (dryer/mixer) |</p>
<table>
<thead>
<tr>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
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<tbody>
<tr>
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<tr>
<td>Arsenic</td>
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<td>2.7E-04</td>
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<td>1.0E-02</td>
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<td>Total HAPs</td>
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</tbody>
</table>

**Methodology**

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


Abbreviations

- PM = Particulate Matter
- SO2 = Sulfur Dioxide
- CO = Carbon Monoxide
- PAH = Polyaromatic Hydrocarbon
- NOx = Nitrous Oxides
- HAP = Hazardous Air Pollutant
- VOC = Volatile Organic Compounds
- HCl = Hydrogen Chloride

**Uncontrolled Emission Factors (lb/ton)**

**Uncontrolled Emission Factors (lb/ton)**

<p>| Curtailed Pollutant | Drum-Mix Plant (dryer/mixer) |</p>
<table>
<thead>
<tr>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
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<tbody>
<tr>
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### PM10

<table>
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### SO2

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### NOX

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### VOC

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### CO

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<tr>
<td>Total HAPs</td>
<td>16.34</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Methodology**

**Worst Single HAP**

**Total HAPs**

**4.75** (formaldehyde)

* 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 waste oil to develop single CO emission factor.

Abbreviations

- PM = Particulate Matter
- SO2 = Sulfur Dioxide
- CO = Carbon Monoxide
- PAH = Polyaromatic Hydrocarbon
- NOx = Nitrous Oxides
- HAP = Hazardous Air Pollutant
- VOC = Volatile Organic Compounds
- HCl = Hydrogen Chloride
The following calculations determine the unlimited/uncontrolled emissions from the aggregate drying/mixing process:

Maximum Hourly Asphalt Production = 350 ton/hr
Maximum Annual Asphalt Production = 3,066,000 ton/yr

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>33</td>
<td>33</td>
<td>33</td>
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<tr>
<td>CH4</td>
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<tr>
<td>N2O</td>
<td>298</td>
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<td>0</td>
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<table>
<thead>
<tr>
<th>Emission Factor (lb/ton)</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
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<tbody>
<tr>
<td>Drum-Mix Plant (dryer/mixer)</td>
<td>Natural Gas</td>
</tr>
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<td>CO2</td>
<td>50,589.00</td>
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<td>CH4</td>
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<tr>
<td>N2O</td>
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<table>
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<tr>
<th>Global Warming Potentials (GWP)</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>Natural Gas</td>
</tr>
<tr>
<td>CO2</td>
<td>50,589.00</td>
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<tr>
<td>CH4</td>
<td>18.40</td>
</tr>
<tr>
<td>N2O</td>
<td>0</td>
</tr>
</tbody>
</table>

Total CO2e for Worst Case Fuel = 51,048.90 tons/yr

CO2e Equivalent Emissions (tons/yr) = 51,048.90

**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 emissions 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) \* CO2 GWP (1) + Unlimited Potential to Emit CH4 of "worst case" fuel (ton/yr) \* CH4 GWP (25) + Unlimited Potential to Emit N2O of "worst case" fuel (ton/yr) \* N2O GWP (298).

**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: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

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

Maximum Annual Blast Furnace Slag Usage = 1,287,720 ton/yr 1.1% sulfur
Maximum Annual Steel Slag Usage = 1,287,720 ton/yr 0.66% sulfur

<table>
<thead>
<tr>
<th>Type of Slag</th>
<th>SO2 Emission Factor (lb/ton)</th>
<th>Unlimited Potential to Emit SO2 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blast Furnace Slag*</td>
<td>0.74</td>
<td>476.5</td>
</tr>
<tr>
<td>Steel Slag**</td>
<td>0.0014</td>
<td>0.90</td>
</tr>
</tbody>
</table>

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:** E & B Paving, Inc.  
**Source Location:** 5002 S. State Road 67, Anderson, IN 46013  
**Permit Number:** F 095-41346-03257  
**Reviewer:** William Altman

Maximum Hot Oil Heater Fuel Input Rate = 2.35 MMBtu/hr  
Natural Gas Usage = 20.59 MMCF/yr  
No. 2 Fuel Oil Usage = 147,043 gal/yr, and 0.50% sulfur

### Unlimited/Uncontrolled Emissions

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas Emission Factor (lb/MMCF)</th>
<th>No. 2 Fuel Oil Emission Factor (lb/kgal)</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Worse Case Fuel</strong></td>
<td><strong>(lb/MMCF)</strong></td>
<td><strong>(lb/kgal)</strong></td>
<td><strong>(tons/yr)</strong></td>
</tr>
<tr>
<td>PM</td>
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<td>2.0</td>
<td>0.020</td>
</tr>
<tr>
<td>PM/SPM/PE</td>
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<td>VOC</td>
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<td>2.43E-04</td>
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</table>

**Worst Single HAP** = 1.9E-02  
**Total HAPS** = 5.2E-03

**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  
- CO = Carbon Monoxide  
- PM10 = Particulate Matter (<10 um)  
- HAP = Hazardous Air Pollutant  
- PM2.5 = Particulate Matter (<2.5 um)  
- HCl = Hydrogen Chloride  
- SO2 = Sulfur Dioxide  
- PAH = Polynuclear Hydrocarbon  
- NOx = Nitrous Oxides  
- VOC = Volatile Organic Compounds
Appendix A.1: Unlimited Emissions Calculations

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

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

Maximum Hot Oil Heater Fuel Input Rate = 2.35 MMBtu/hr
Natural Gas Usage = 20.59 MMCF/yr
No. 2 Fuel Oil Usage = 147,042.86 gal/yr, 0.50% sulfur

Unlimited/Uncontrolled Emissions

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas (lb/MMCF)</th>
<th>No. 2 Fuel Oil (lb/kgal)</th>
<th>Global Warming Potentials (GWP)</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>120,161.84</td>
<td>22,501.41</td>
<td>1</td>
<td>1,236.83</td>
</tr>
<tr>
<td>CH4</td>
<td>2.49</td>
<td>0.91</td>
<td>25</td>
<td>0.03</td>
</tr>
<tr>
<td>N2O</td>
<td>2.2</td>
<td>0.26</td>
<td>298</td>
<td>0.02</td>
</tr>
</tbody>
</table>

CO2e Equivalent Emissions (tons/yr) = Unlimited Potential to Emit CO2 (tons/yr) x CO2 GWP (1) + Unlimited Potential to Emit CH4 (tons/yr) x CH4 GWP (25) + Unlimited Potential to Emit N2O (tons/yr) x N2O GWP (298).

Worse Case CO2e Emissions (tons/yr) = Unlimited Potential to Emit CO2 (tons/yr) x CO2 GWP (1) + Unlimited Potential to Emit CH4 (tons/yr) x CH4 GWP (25) + Unlimited Potential to Emit N2O (tons/yr) x N2O GWP (298).

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 (gal/yr)] * [Emission Factor (lb/kgal)] * [kgal/1000 gal] * [ton/2000 lbs]

Abbreviations
CO2 = Carbon Dioxide
N2O = Nitrogen Dioxide
CH4 = Methane
PTE = Potential to Emit
The following calculations determine the unlimited/uncontrolled emissions from the combustion of natural gas and No. 2 fuel oil in the hot oil heating system, which is used to heat a specially designed transfer oil. The hot transfer oil is then pumped through a piping system that passes through the asphalt cement storage tanks, in order to keep the asphalt cement at the correct temperature.

Maximum Fuel Input Rate To Hot Oil Heater = 2.35 MMBtu/hr
Natural Gas Usage = 20.59 MMCF/yr, and
No. 2 Fuel Oil Usage = 147,042.86 gal/yr

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas (lb/ft³)</th>
<th>No. 2 Fuel Oil (lb/gal)</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Worse Case PTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>2.60E-08</td>
<td>2.66E-05</td>
<td>2.68E-04</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>CO</td>
<td>8.90E-06</td>
<td>0.0012</td>
<td>0.092</td>
<td>0.088</td>
<td>0.092</td>
</tr>
<tr>
<td>Greenhouse Gas as CO2e</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO2</td>
<td>0.20</td>
<td>28.00</td>
<td>2058.60</td>
<td>2058.60</td>
<td>2058.60</td>
</tr>
<tr>
<td>Hazardous Air Pollutant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>2.60E-08</td>
<td>3.50E-06</td>
<td>2.68E-04</td>
<td>2.57E-04</td>
<td>2.68E-04</td>
</tr>
<tr>
<td>Acrenylphthene</td>
<td>5.30E-07</td>
<td>3.90E-05</td>
<td>3.90E-05</td>
<td>3.90E-05</td>
<td></td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>2.00E-07</td>
<td>1.47E-05</td>
<td>1.47E-05</td>
<td>1.47E-05</td>
<td></td>
</tr>
<tr>
<td>Anthracene</td>
<td>1.80E-07</td>
<td>1.32E-05</td>
<td>1.32E-05</td>
<td>1.32E-05</td>
<td></td>
</tr>
<tr>
<td>Benzo(a) fluoranthene</td>
<td>1.00E-07</td>
<td>7.35E-06</td>
<td>7.35E-06</td>
<td>7.35E-06</td>
<td></td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>4.40E-08</td>
<td>3.23E-06</td>
<td>3.23E-06</td>
<td>3.23E-06</td>
<td></td>
</tr>
<tr>
<td>Fluorene</td>
<td>3.20E-08</td>
<td>2.35E-06</td>
<td>2.35E-06</td>
<td>2.35E-06</td>
<td></td>
</tr>
<tr>
<td>Naphthalene</td>
<td>1.70E-05</td>
<td>1.25E-03</td>
<td>1.25E-03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>4.90E-06</td>
<td>3.60E-04</td>
<td>3.60E-04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pyrene</td>
<td>3.20E-08</td>
<td>2.35E-06</td>
<td>2.35E-06</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total HAPs 1.96E-03  (Naphthalene)
Worst Single HAP 1.25E-03  (Naphthalene)

Methodology
Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
No. 2 Fuel Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.140 MMBtu]
Natural Gas: Potential to Emit (tons/yr) = (Natural Gas Usage (MMCF/yr))*(Emission Factor (lb/CF))*(1000000 CF/MMCF)*(ton/2000 lbs)
No. 2 Fuel Oil: Potential to Emit (tons/yr) = (No. 2 Fuel Oil Usage (gal/yr))*(Emission Factor (lb/gal))*(ton/2000 lbs)
Unlimited Potential to Emit CO2e (tons/yr) = Unlimited Potential to Emit CO2 (ton/yr) x CO2 GWP (1)
1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Note: There are no emission factors for CH4 and N20 available in either 40 CFR 98, Subpart C or AP-42 Chapter 11.1. Therefore, it is assumed that there are no CH4 and N2O emission anticipated from this process.

Abbreviations
CO = Carbon Monoxide  VOC = Volatile Organic Compound  CO2 = Carbon Dioxide
Appendix A.1: Unlimited Emissions Calculations

Reciprocating Internal Combustion Engines - Diesel Fuel

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

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

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/hp-hr</th>
<th>Emission Factor in lb/kgal</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM2.5</td>
<td>0.0022</td>
<td>43.07</td>
<td>0.0</td>
</tr>
<tr>
<td>PM10</td>
<td>0.0022</td>
<td>43.07</td>
<td>0.0</td>
</tr>
<tr>
<td>NOx</td>
<td>0.0021</td>
<td>0.00</td>
<td>0.0</td>
</tr>
<tr>
<td>SO2</td>
<td>0.0310</td>
<td>0.00</td>
<td>0.0</td>
</tr>
<tr>
<td>VOC</td>
<td>0.0025</td>
<td>0.00</td>
<td>0.0</td>
</tr>
<tr>
<td>CO</td>
<td>0.0067</td>
<td>0.00</td>
<td>0.0</td>
</tr>
</tbody>
</table>

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.

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

3PM 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)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Xylene</th>
<th>1,3-Butadiene</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
<th>Acrolein</th>
<th>Total PAH HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/kgal</td>
<td>1.28E-01</td>
<td>5.60E-02</td>
<td>3.91E-02</td>
<td>5.36E-03</td>
<td>1.05E-01</td>
<td>1.27E-02</td>
<td>2.30E-02</td>
<td>1.58E-04</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
</tr>
</tbody>
</table>

3PAH = Polycyclic aromatic hydrocarbons (PAHs are considered HAPs, since they are considered polycyclic aromatic compounds.)

4Emission factor (lb/kgal) = 40 CFR 98 EF (kg/MMBtu) * 2.20462 (lb/kg) / 1,000 (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)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CO2</th>
<th>CH4</th>
<th>N2O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/hp-hr</td>
<td>0.00</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Emission Factor in kg/MMBtu</td>
<td>0.003</td>
<td>0.0006</td>
<td>0.0000</td>
</tr>
<tr>
<td>Emission Factor in lb/kgal</td>
<td>22.512</td>
<td>0.007</td>
<td>0.000</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

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.

6Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) / 1,000 (hp-hr/Btu) * 19,300 (Btu/lb) / 7.1 (lb/gal)

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.

8Emission factor (lb/kgal) = 40 CFR 98 EF (kg/MMBtu) * 2.20462 (lb/kg) / 1,000 (gal/kgal)

Potential Emissions (tons/yr) = CO2 Emission (tons/yr) + CH4 Emission (tons/yr) + N2O Emission (tons/yr)

| Summed Potential Emissions 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) / 1,000 (Btu/lb) / 7.1 (lb/gal)

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 Tables 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) / Emission Factor (lb/kgal)] / 1,000 (gal/kgal) / 2,000 (lb/ton)

CO2e (tons/yr) = CO2 Potential Emission (tons/yr) + CH4 Potential Emission (tons/yr) + N2O Potential Emission (tons/yr)

CO2e Total in tons/yr 0.00
Appendix A.1: Unlimited Emissions Calculations

Large Reciprocating Internal Combustion Engines - Diesel Fuel

Page 11 of 20 TSD App A.1

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

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

---

### Green House Gas Emissions (GHG)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CO\textsubscript{2}</th>
<th>CH\textsubscript{4}\textsuperscript{a}</th>
<th>N\textsubscript{2}O\textsuperscript{a}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/hp-hr</td>
<td>1.16</td>
<td>6.35E-05</td>
<td>NA</td>
</tr>
<tr>
<td>Emission Factor in kg/MMBtu</td>
<td>NA</td>
<td>NA</td>
<td>0.0006</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

---

### Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Xylene</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
<th>Acrolein</th>
<th>Total PAH HAPs\textsuperscript{a}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMBtu</td>
<td>7.76E-04</td>
<td>2.81E-04</td>
<td>1.93E-04</td>
<td>7.89E-05</td>
<td>2.52E-05</td>
<td>7.88E-05</td>
<td>2.12E-04</td>
</tr>
<tr>
<td>Emission Factor in lb/kgal\textsuperscript{a}</td>
<td>1.06E-01</td>
<td>3.95E-02</td>
<td>2.64E-02</td>
<td>3.47E-03</td>
<td>1.00E-03</td>
<td>2.91E-02</td>
<td>1.91E-02</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

\textsuperscript{a}PAH = Polynuclear Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

---

### Total Emission Factors

- **CO\textsubscript{2}**
- **CH\textsubscript{4}\textsuperscript{a}**
- **N\textsubscript{2}O\textsuperscript{a}**
- **PM**
- **PM\textsubscript{10}\textsuperscript{a}**
- **SO\textsubscript{2}\textsuperscript{a}**
- **NO\textsubscript{x}\textsuperscript{a}**
- **VOC**
- **HAPs**

---

### Methodology

- **Maximum Diesel Fuel Usage (gal/yr)** = [Output Horsepower Rating (hp)] \times [Maximum Hours Operated per Year]
- **Potential Throughput (hp-hr/yr)** = [Output Horsepower Rating (hp)] \times [Maximum Hours Operated per Year] / 19300 (Btu/hp-hr) / 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.
- **CO\textsubscript{2}** Total Emission = CO\textsubscript{2} Potential Emission \times CO2 GWP (1) + CH\textsubscript{4} Potential Emission \times CH4 GWP (25) + N\textsubscript{2}O Potential Emission GWP \times N2O GWP (298).
Appendix A.1: Unlimited Emissions Calculations

Asphalt Load-Out, Silo Filling, and Yard Emissions

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

Asphalt Temperature, $T = 325$ F
Asphalt Volatility Factor, $V = -0.5$
Maximum Annual Asphalt Production = 3,066,000 tons/yr

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Load-Out</th>
<th>Silo Filling</th>
<th>On-Site Yard</th>
<th>Total</th>
<th>PM/HAPs</th>
<th>VOC/HAPs</th>
<th>non-VOC/HAPs</th>
<th>non-VOC/non-HAPs</th>
<th>Total VOCs</th>
<th>Total HAPs</th>
<th>Worst Single HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PM*</td>
<td>5.2E-04</td>
<td>5.9E-04</td>
<td>NA</td>
<td>0.80</td>
<td>0.90</td>
<td>0.38</td>
<td>1.88</td>
<td>1.88</td>
<td>1.70</td>
<td>0.91</td>
<td>1.136 (formaldehyde)</td>
</tr>
<tr>
<td>Organic PM</td>
<td>3.4E-04</td>
<td>2.5E-04</td>
<td>NA</td>
<td>0.52</td>
<td>0.389</td>
<td>0.38</td>
<td>1.88</td>
<td>1.88</td>
<td>0.91</td>
<td>0.389</td>
<td>0.357</td>
</tr>
<tr>
<td>TOC</td>
<td>0.004</td>
<td>0.012</td>
<td>0.001</td>
<td>0.38</td>
<td>18.68</td>
<td>1.88</td>
<td>1.88</td>
<td>1.88</td>
<td>26.7</td>
<td>2.07</td>
<td>0.12</td>
</tr>
<tr>
<td>CO</td>
<td>0.001</td>
<td>0.001</td>
<td>3.5E-04</td>
<td>2.07</td>
<td>1.809</td>
<td>0.540</td>
<td>0.12</td>
<td>0.12</td>
<td>4.42</td>
<td>0.28</td>
<td>0.44</td>
</tr>
</tbody>
</table>

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)


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

\[
\text{Total PM} = 0.000181 + 0.00141(-V)e^{0.0251(T+460)-20.43}
\]

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

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

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

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

\[
\text{PM} = 0.000332 + 0.00105(-V)e^{0.0251(T+460)-20.43}
\]

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

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

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

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
### Organic Particulate-Based Compounds (Table 11.1-15)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CASRN</th>
<th>Category</th>
<th>HAP Type</th>
<th>Source</th>
<th>Load-out and Onsite Yard (% by weight of Total Organic PM)</th>
<th>Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)</th>
<th>Speciation Profile</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAH HAPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acenaphthene</td>
<td>83-32-9</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.26%</td>
<td>0.47%</td>
<td>1.4E-03</td>
<td>1.8E-03</td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>208-96-8</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.028%</td>
<td>0.014%</td>
<td>1.5E-04</td>
<td>5.4E-05</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120-12-7</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.07%</td>
<td>0.13%</td>
<td>3.7E-04</td>
<td>5.1E-04</td>
</tr>
<tr>
<td>Benzo(a)anthracene</td>
<td>56-55-3</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.019%</td>
<td>0.056%</td>
<td>9.9E-05</td>
<td>2.2E-04</td>
</tr>
<tr>
<td>Benzo(b)fluoranthene</td>
<td>205-99-2</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.007%</td>
<td>0</td>
<td>4.0E-05</td>
<td>0</td>
</tr>
<tr>
<td>Benzo(ghi)peranthrene</td>
<td>207-08-9</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.022%</td>
<td>0</td>
<td>1.1E-05</td>
<td>0</td>
</tr>
<tr>
<td>Benzo(g,h,i)perylene</td>
<td>191-24-2</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0019%</td>
<td>0</td>
<td>9.9E-06</td>
<td>0</td>
</tr>
<tr>
<td>Benzo(k)pyrene</td>
<td>50-32-2</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0023%</td>
<td>0</td>
<td>1.2E-05</td>
<td>0</td>
</tr>
<tr>
<td>Benzo(e)pyrene</td>
<td>192-97-2</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0078%</td>
<td>0.0098%</td>
<td>4.1E-05</td>
<td>3.7E-05</td>
</tr>
<tr>
<td>Chrysene</td>
<td>218-01-9</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.103%</td>
<td>0.1%</td>
<td>5.4E-04</td>
<td>8.2E-04</td>
</tr>
<tr>
<td>Dibenzo(a,h)anthracene</td>
<td>53-70-3</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.00037%</td>
<td>0</td>
<td>1.9E-06</td>
<td>0</td>
</tr>
<tr>
<td>Fluoranidine</td>
<td>206-44-0</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.08%</td>
<td>0.15%</td>
<td>2.6E-04</td>
<td>0</td>
</tr>
<tr>
<td>Fluorene</td>
<td>86-73-7</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.77%</td>
<td>1.01%</td>
<td>4.0E-03</td>
<td>3.9E-03</td>
</tr>
<tr>
<td>Indeno(1,2,3-cd)pyrene</td>
<td>193-39-5</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.00047%</td>
<td>0</td>
<td>2.5E-06</td>
<td>0</td>
</tr>
<tr>
<td>2-Methylnaphthalene</td>
<td>91-57-6</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>2.38%</td>
<td>5.27%</td>
<td>1.2E-02</td>
<td>2.1E-02</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>1.95%</td>
<td>1.82%</td>
<td>6.0E-03</td>
<td>7.1E-03</td>
</tr>
<tr>
<td>Perylene</td>
<td>198-50-0</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.022%</td>
<td>0.03%</td>
<td>1.1E-04</td>
<td>1.2E-04</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>85-01-8</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.81%</td>
<td>1.80%</td>
<td>4.2E-03</td>
<td>7.0E-03</td>
</tr>
<tr>
<td>Pyrene</td>
<td>129-00-0</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.15%</td>
<td>0.44%</td>
<td>7.8E-04</td>
<td>1.7E-03</td>
</tr>
</tbody>
</table>

**Total PAH HAPs**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CASRN</th>
<th>Category</th>
<th>HAP Type</th>
<th>Source</th>
<th>Load-out and Onsite Yard (% by weight of Total Organic PM)</th>
<th>Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)</th>
<th>Speciation Profile</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other semi-volatile HAPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phenol</td>
<td>PM/HAP</td>
<td>—</td>
<td>Organic PM</td>
<td>1.16%</td>
<td>0</td>
<td>6.2E-03</td>
<td>0</td>
<td>6.2E-03</td>
</tr>
</tbody>
</table>

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

**Methodology**

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


**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)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CASRN</th>
<th>Category</th>
<th>HAP Type</th>
<th>Source</th>
<th>Speciation Profile</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Load-out and Onsite Yard (% by weight of TOC)</td>
<td>Silo Filling and Asphalt Storage Tank (% by weight of TOC)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Load-out</td>
<td>Silo Filling</td>
<td>Onsite Yard</td>
</tr>
<tr>
<td><strong>VOC</strong></td>
<td></td>
<td></td>
<td></td>
<td>TOC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-VOC/non-HAPS</td>
<td></td>
<td></td>
<td></td>
<td>94%</td>
<td>100%</td>
<td>5.99</td>
</tr>
<tr>
<td>Methane</td>
<td>74-82-8</td>
<td>non-VOC/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td></td>
<td>6.50%</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>non-VOC/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td></td>
<td>0.046%</td>
</tr>
<tr>
<td>Ethylene</td>
<td>74-85-1</td>
<td>non-VOC/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td></td>
<td>0.71%</td>
</tr>
<tr>
<td><strong>Total non-VOC/non-HAPS</strong></td>
<td></td>
<td></td>
<td></td>
<td>7.30%</td>
<td>1.40%</td>
<td>0.465</td>
</tr>
<tr>
<td><strong>Volatile organic HAPs</strong></td>
<td></td>
<td></td>
<td></td>
<td>1.50%</td>
<td>1.30%</td>
<td>0.096</td>
</tr>
</tbody>
</table>

#### Methodology

\[
\text{Unlimited/Uncontrolled Potential to Emit (tons/yr)} = \left( \text{Speciation Profile} \right) \times \left[ \text{TOC (tons/yr)} \right]
\]


#### Abbreviations

- **TOC** = Total Organic Compounds
- **VOC** = Volatile Organic Compound
- **MTBE** = Methyl tert butyl ether
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.

\[
Ef = 1.7*(s/1.5)*(365-p)/235*(f/15)
\]

where \( Ef \) = emission factor (lb/acre/day)

\[
s = \text{silt content (wt %)}
\]

\[
p = 125 \text{ days of rain greater than or equal to 0.01 inches}
\]

\[
f = 15 \text{ % of wind greater than or equal to 12 mph}
\]

<table>
<thead>
<tr>
<th>Material</th>
<th>Silt Content (wt %)*</th>
<th>Emission Factor (lb/acre/day)</th>
<th>Maximum Anticipated Pile Size (acres)**</th>
<th>PTE of PM (tons/yr)</th>
<th>PTE of PM10/PM2.5 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>2.6</td>
<td>3.01</td>
<td>0.75</td>
<td>0.412</td>
<td>0.144</td>
</tr>
<tr>
<td>Limestone</td>
<td>1.6</td>
<td>1.85</td>
<td>0.75</td>
<td>0.253</td>
<td>0.089</td>
</tr>
<tr>
<td>RAP</td>
<td>0.5</td>
<td>0.58</td>
<td>0.75</td>
<td>0.079</td>
<td>0.028</td>
</tr>
<tr>
<td>Gravel</td>
<td>1.6</td>
<td>1.85</td>
<td>0.75</td>
<td>0.253</td>
<td>0.089</td>
</tr>
<tr>
<td>Shingles</td>
<td>0.5</td>
<td>0.58</td>
<td>0.75</td>
<td>0.079</td>
<td>0.028</td>
</tr>
<tr>
<td>Slag</td>
<td>3.8</td>
<td>4.40</td>
<td>0.75</td>
<td>0.602</td>
<td>0.211</td>
</tr>
</tbody>
</table>

**Maximum anticipated pile size (acres) provided by the source.

PTE of PM (tons/yr) = (Emission Factor (lb/acre/day)) * (Maximum Pile Size (acres)) * (ton/2000 lbs) * (365 days/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)

Methodology

Abbreviations

PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit
RAP = Recycled Asphalt Pavement
Appendix A.1: Unlimited Emissions Calculations

Material Processing, Handling, Crushing, Screening, and Conveying

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 995-41346-03257
Reviewer: William Altman

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.

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

where:
- \( Ef \) = 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)

\[ Ef \text{ (PM)} = 2.27 \times 10^{-3} \text{ lb PM/ton of material handled} \]
\[ Ef \text{ (PM10)} = 1.07 \times 10^{-3} \text{ lb PM10/ton of material handled} \]
\[ Ef \text{ (PM2.5)} = 1.62 \times 10^{-4} \text{ lb PM2.5/ton of material handled} \]

Maximum Annual Asphalt Production = 3,066,000 tons/yr
Percent Asphalt Cement/Binder (weight %) = 5.0%
Maximum Material Handling Throughput = 2,912,700 tons/yr

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Unlimited/Uncontrolled PTE of PM (tons/yr)</th>
<th>Unlimited/Uncontrolled PTE of PM10 (tons/yr)</th>
<th>Unlimited/Uncontrolled PTE of PM2.5 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck unloading of materials into storage piles</td>
<td>3.30</td>
<td>1.56</td>
<td>0.24</td>
</tr>
<tr>
<td>Front-end loader dumping of materials into feeder bins</td>
<td>3.30</td>
<td>1.56</td>
<td>0.24</td>
</tr>
<tr>
<td>Conveyor dropping material into dryer/mixer or batch</td>
<td>3.30</td>
<td>1.56</td>
<td>0.24</td>
</tr>
<tr>
<td>Total (tons/yr)</td>
<td>9.90</td>
<td>4.68</td>
<td>0.71</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Uncontrolled Emission Factor for PM (lbs/ton)*</th>
<th>Uncontrolled Emission Factor for PM10 (lbs/ton)*</th>
<th>Unlimited/Uncontrolled PTE of PM (tons/yr)</th>
<th>Unlimited/Uncontrolled PTE of PM10 (tons/yr)</th>
<th>Unlimited/Uncontrolled PTE of PM2.5 (tons/yr)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crushing</td>
<td>0.0054</td>
<td>0.0024</td>
<td>7.86</td>
<td>3.50</td>
<td></td>
</tr>
<tr>
<td>Screening</td>
<td>0.026</td>
<td>0.0087</td>
<td>36.41</td>
<td>12.67</td>
<td></td>
</tr>
<tr>
<td>Conveying</td>
<td>0.003</td>
<td>0.0011</td>
<td>4.37</td>
<td>1.60</td>
<td></td>
</tr>
</tbody>
</table>

\[ \text{Unlimited Potential to Emit (tons/yr)} = 48.64 \]
\[ \text{Unlimited Potential to Emit (tons/yr)} = 17.77 \]

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)
*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
## 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).

### 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) = [Maximum Weight of Vehicle (tons)] + [Maximum Weight of Load (tons)]

Maximum trips per year (trip/yr) = [Maximum Weight of Vehicle and Load (tons)] / [Maximum Weight of Load (tons)]

Maximum one-way distance (ft/trip) = [Maximum one-way distance (ft/mile)] / 5280

Average Miles Per Trip (miles/trip) = \[\text{SUM}[\text{Maximum one-way miles (miles/yr)}/\text{SUM}[\text{Maximum trips per year (trip/yr)}]]

\[k = \frac{w \times \exp[(-a \times \text{Dust Control Efficiency})]}{w - a \times \text{Dust Control Efficiency}}\]

\[\text{Mitigated PTE} = \left(\text{Mitigated PTE (Before Control)}\right) \times (1 - \text{Dust Control Efficiency})\]

\[\text{Mitigated Emission Factor, } E_{\text{ext}} = E_{\text{f}} \times \left[\frac{1}{365 - P}\right] \times \left[\frac{3}{365}\right]\]

### Calculations

<table>
<thead>
<tr>
<th>Process</th>
<th>Vehicle Type</th>
<th>Maximum Weight of Vehicle (tons)</th>
<th>Maximum Weight of Load (tons)</th>
<th>Maximum Weight of Vehicle and Load (tons)</th>
<th>Maximum trips per year (trip/yr)</th>
<th>Total Weight Driven per Day (ton/yr)</th>
<th>Maximum one-way distance (ft/trip)</th>
<th>Maximum one-way distance (mile/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate/Asphalt Truck Empty Load</td>
<td>16-CY truck</td>
<td>11.7</td>
<td>0.0</td>
<td>11.7</td>
<td>2.06</td>
<td>17.0</td>
<td>0.96</td>
<td>317.0</td>
</tr>
<tr>
<td>Asphalt-Concrete/Binder Truck Empty Load</td>
<td>16-CY truck</td>
<td>16.0</td>
<td>0.0</td>
<td>16.0</td>
<td>2.06</td>
<td>17.0</td>
<td>0.96</td>
<td>317.0</td>
</tr>
<tr>
<td>Asphalt-Concrete/Binder Truck Leave Empty</td>
<td>16-CY truck</td>
<td>21.0</td>
<td>0.0</td>
<td>21.0</td>
<td>2.06</td>
<td>17.0</td>
<td>0.96</td>
<td>317.0</td>
</tr>
<tr>
<td>Asphalt-Concrete/Binder Truck Leave Full</td>
<td>16-CY truck</td>
<td>26.0</td>
<td>15.0</td>
<td>41.0</td>
<td>2.06</td>
<td>17.0</td>
<td>0.96</td>
<td>317.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Truck Leave Full</td>
<td>16-CY truck</td>
<td>26.0</td>
<td>15.0</td>
<td>41.0</td>
<td>2.06</td>
<td>17.0</td>
<td>0.96</td>
<td>317.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Truck Leave Full</td>
<td>6000 gal tanker</td>
<td>16.0</td>
<td>0.0</td>
<td>16.0</td>
<td>2.06</td>
<td>17.0</td>
<td>0.96</td>
<td>317.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Truck Leave Full</td>
<td>16-CY truck</td>
<td>26.0</td>
<td>15.0</td>
<td>41.0</td>
<td>2.06</td>
<td>17.0</td>
<td>0.96</td>
<td>317.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Truck Leave Full</td>
<td>6000 gal tanker</td>
<td>16.0</td>
<td>0.0</td>
<td>16.0</td>
<td>2.06</td>
<td>17.0</td>
<td>0.96</td>
<td>317.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Truck Leave Full</td>
<td>16-CY truck</td>
<td>26.0</td>
<td>15.0</td>
<td>41.0</td>
<td>2.06</td>
<td>17.0</td>
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<td>317.0</td>
</tr>
<tr>
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<td>6000 gal tanker</td>
<td>16.0</td>
<td>0.0</td>
<td>16.0</td>
<td>2.06</td>
<td>17.0</td>
<td>0.96</td>
<td>317.0</td>
</tr>
</tbody>
</table>

### Abbreviations

PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)

\[\text{Average Vehicle Weight Per Trip} = \frac{\text{Average Vehicle Weight Per Trip (ton/yr)}}{\text{Average Miles Per Trip (mile/yr)}}\]

\[\text{Maximum No. 2 Fuel Oil Usage} = \left(\frac{\text{Annual Asphalt Production Limitation (tons/yr)}}{1000}\right) \times \left(\frac{\text{Percent Asphalt Cement/Binder (weight %)}}{100}\right)\]

\[\text{Maximum Weight of Vehicle and Load} = \left(\frac{\text{Maximum Weight of Vehicle (tons)}}{1000}\right) + \left(\frac{\text{Maximum Weight of Load (tons)}}{1000}\right)\]

\[\text{Mitigated Emission Factor} = \left(\frac{\text{E}_{\text{f}}}{1000}\right) \times \left(\frac{\text{E}_{\text{ext}}}{1000}\right)\]
**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).

### Paved Roads at Industrial Site

#### Maximum Asphalt Cement/Binder Throughput

<table>
<thead>
<tr>
<th>Process</th>
<th>Vehicle Type</th>
<th>Maximum Weight (tons/yr)</th>
<th>Maximum Weight of Vehicle and Load (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paved Roads at Industrial Site</td>
<td>Tanker truck (6000 gal)</td>
<td>8127.0</td>
<td>1.1E-02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48.00</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td>44.00</td>
<td>12.0</td>
</tr>
</tbody>
</table>

#### Maximum Material Handling Throughput

<table>
<thead>
<tr>
<th>Process</th>
<th>Vehicle Type</th>
<th>Maximum Weight (tons)</th>
<th>Maximum Weight of Load (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tanker truck (6000 gal)</td>
<td>8127.0</td>
<td>1.1E-02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48.00</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td>44.00</td>
<td>12.0</td>
</tr>
</tbody>
</table>

### Methodology

Maximum Material Handling Throughput = Annual Asphalt Production Limitation (tons/yr) * 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 = Maximum Weight of Vehicle (tons) + Maximum Weight of Load (tons)

Total Weight driven per year = Maximum Weight of Vehicle and Load (tons) * Maximum trips per year (trip/yr)

Maximum one-way distance (miles) = Maximum one-way distance (feet) / 5280

### Calculations

#### Emissions

<table>
<thead>
<tr>
<th>Process</th>
<th>Vehicle Type</th>
<th>Mitigated PTE (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tanker truck (6000 gal)</td>
<td>266.1</td>
<td>19.20</td>
<td>7984.4</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24.0</td>
<td>18.55</td>
<td>330</td>
<td>102.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20.3</td>
<td>17.00</td>
<td>6.95</td>
<td>7984.4</td>
</tr>
</tbody>
</table>

### Abbreviations

PM = Particulate Matter
PMA = Particulate Matter (10-um) PMS = Particulate Matter (>2.5 um)

### Source Information

Company Name: E A & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Company Name: E & B Paving, Inc.
F 095-41346-03257

### Figure 13.2.1-2

- Maximum one-way distance (miles) = Maximum one-way distance (feet) / 5280
- Maximum Weight of Vehicle and Load (tons) = Maximum Weight of Vehicle (tons) + Maximum Weight of Load (tons)
- Total Weight driven per year = Maximum Weight of Vehicle and Load (tons) * Maximum trips per year (trip/yr)
- Maximum one-way distance (miles) = Maximum one-way distance (feet) / 5280
- Maximum Material Handling Throughput = Annual Asphalt Production Limitation (tons/yr) * Percent Asphalt Cement/Binder (weight %)

### Table 13.2.1-1

<table>
<thead>
<tr>
<th>Process</th>
<th>Vehicle Type</th>
<th>Mitigated PTE (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Tanker truck (6000 gal)</td>
<td>266.1</td>
<td>19.20</td>
<td>7984.4</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24.0</td>
<td>18.55</td>
<td>330</td>
<td>102.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20.3</td>
<td>17.00</td>
<td>6.95</td>
<td>7984.4</td>
</tr>
</tbody>
</table>

### Table 13.2.1-3

<table>
<thead>
<tr>
<th>Process</th>
<th>Vehicle Type</th>
<th>Mitigated PTE (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tanker truck (6000 gal)</td>
<td>266.1</td>
<td>19.20</td>
<td>7984.4</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24.0</td>
<td>18.55</td>
<td>330</td>
<td>102.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20.3</td>
<td>17.00</td>
<td>6.95</td>
<td>7984.4</td>
</tr>
</tbody>
</table>
Appendix A.1: Unlimited Emissions Calculations

Cold Mix Asphalt Production and Stockpiles

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41364-03257
Reviewer: William Altman

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.

**Volatile Organic Compounds**

<table>
<thead>
<tr>
<th></th>
<th>Maximum weight % of VOC solvent in binder*</th>
<th>Weight % VOC solvent in binder that evaporates</th>
<th>Maximum VOC Solvent Usage (tons/yr)</th>
<th>PTE of VOC (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)</td>
<td>25.3%</td>
<td>95.0%</td>
<td>38,784.9</td>
<td>36,845.7</td>
</tr>
<tr>
<td>Cut back asphalt medium cure (assuming kerosene solvent)</td>
<td>28.6%</td>
<td>70.0%</td>
<td>43,843.8</td>
<td>30,690.7</td>
</tr>
<tr>
<td>Cut back asphalt slow cure (assuming fuel oil solvent)</td>
<td>20.0%</td>
<td>25.0%</td>
<td>30,660.0</td>
<td>7,665.0</td>
</tr>
<tr>
<td>Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)</td>
<td>15.0%</td>
<td>46.4%</td>
<td>22,995.0</td>
<td>10,669.7</td>
</tr>
<tr>
<td>Other asphalt with solvent binder</td>
<td>25.9%</td>
<td>2.5%</td>
<td>39,704.7</td>
<td>992.6</td>
</tr>
</tbody>
</table>

**Worst Case PTE of VOC** = 36,845.7

**Hazardous Air Pollutants**

<table>
<thead>
<tr>
<th></th>
<th><strong>Worst Case Total HAP Content of VOC solvent (weight %)</strong></th>
<th>**Worst Case Single HAP Content of VOC solvent (weight %)</th>
<th>PTE of Total HAPs (tons/yr)</th>
<th>PTE of Single HAP (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>26.08%</td>
<td>9.0%</td>
<td>9,610.71</td>
<td>3,316.11</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Volatile Organic HAP</th>
<th>CAS#</th>
<th>Hazardous Air Pollutant (HAP) Content (% by weight)* For Various Petroleum Solvents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Gasoline</strong></td>
</tr>
<tr>
<td>1,3-Butadiene</td>
<td>106-69-0</td>
<td>3.70E-5%</td>
</tr>
<tr>
<td>2,2,4-Trimethylpentane</td>
<td>940-84-1</td>
<td>2.40%</td>
</tr>
<tr>
<td>Acenaphthene</td>
<td>71-43-2</td>
<td>1.90%</td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>208-96-8</td>
<td>4.50E-5%</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120-12-7</td>
<td>1.20E-6%</td>
</tr>
<tr>
<td>Benzene</td>
<td>95-47-6</td>
<td>9.50E-4%</td>
</tr>
<tr>
<td>Benz(o)aanthracene</td>
<td>96-55-3</td>
<td>9.60E-4%</td>
</tr>
<tr>
<td>Benz(o)pyrene</td>
<td>100-32-8</td>
<td>2.20E-6%</td>
</tr>
<tr>
<td>Benz(o)h,perylene</td>
<td>191-24-2</td>
<td>1.20E-4%</td>
</tr>
<tr>
<td>Biphenyl</td>
<td>92-52-4</td>
<td>6.30E-4%</td>
</tr>
<tr>
<td>Chrysene</td>
<td>218-01-9</td>
<td>4.50E-4%</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>1.70%</td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>206-44-0</td>
<td>7.10E-4%</td>
</tr>
<tr>
<td>Fluorene</td>
<td>98-73-7</td>
<td>4.20E-5%</td>
</tr>
<tr>
<td>Indeno(1,2,3-cd-pyrene)</td>
<td>193-39-5</td>
<td>1.00E-4%</td>
</tr>
<tr>
<td>Methyl tert-butyl ether</td>
<td>1631-04-4</td>
<td>0.33%</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.31%</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
<td>2.40%</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>85-01-8</td>
<td>8.60E-4%</td>
</tr>
<tr>
<td>Pyrene</td>
<td>129-00-0</td>
<td>2.40E-6%</td>
</tr>
<tr>
<td>Ytulene</td>
<td>108-88-3</td>
<td>8.10%</td>
</tr>
<tr>
<td><strong>Total Xylenes</strong></td>
<td>1330-20-7</td>
<td>8.00%</td>
</tr>
<tr>
<td></td>
<td><strong>Total Organic HAPs</strong></td>
<td><strong>26.08%</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Worst Single HAP</strong></td>
<td><strong>9.00%</strong></td>
</tr>
</tbody>
</table>

**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)]

**Abbreviations**

VOC = Volatile Organic Compounds
PTE = Potential to Emit

Composition of Petroleum Mixtures. The Association for Environmental Health and Science.
Appendix A.1: Unlimited Emissions Calculations
Gasoline Fuel Transfer and Dispensing Operation

Company Name: E & B Paving, Inc.
Source Address: 5002 S. State Road 67, Anderson, IN 46013
Permit Number: F 095-41346-03257
Reviewer: William Altman

Gasoline Throughput = 1,300 gallons/day = 474.5 kgal/yr

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Emission Factor (lb/kgal of throughput)</th>
<th>PTE of VOC (tons/yr)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filling storage tank (balanced submerged filling)</td>
<td>0.3</td>
<td>0.07</td>
</tr>
<tr>
<td>Tank breathing and emptying</td>
<td>1.0</td>
<td>0.24</td>
</tr>
<tr>
<td>Vehicle refueling (dispensed losses - controlled)</td>
<td>1.1</td>
<td>0.26</td>
</tr>
<tr>
<td>Spillage</td>
<td>0.7</td>
<td>0.17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>0.74</strong></td>
</tr>
</tbody>
</table>

Hazardous Air Pollutants

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Worst Case Total HAP Content of VOC solvent (weight %)* =</td>
<td>26.08%</td>
<td></td>
</tr>
<tr>
<td>Worst Case Single HAP Content of VOC solvent (weight %)* =</td>
<td>9.0%</td>
<td></td>
</tr>
<tr>
<td>Limited PTE of Total HAPs (tons/yr) =</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td>Limited PTE of Single HAP (tons/yr) =</td>
<td>0.07 Xylenes</td>
<td></td>
</tr>
</tbody>
</table>

Methodology
The gasoline throughput was provided by the source.

\[
PTE \text{ of VOC (tons/yr)} = \left(\text{Gasoline Throughput (lbs/day)} \times \frac{\text{365 days/yr}}{\text{365 days/yr}} \times \frac{\text{kgal}}{\text{1000 gal}} \times \frac{\text{Emission Factor (lb/kgal)}}{\text{ton/2000 lb}}\right)
\]

\[
PTE \text{ of Total HAPs (tons/yr)} = \left(\text{Worst Case Total HAP Content of VOC solvent (weight %)} \times \frac{\text{PTE of VOC (tons/yr)}}{\text{ton}}\right)
\]

\[
PTE \text{ of Single HAP (tons/yr)} = \left(\text{Worst Case Single HAP Content of VOC solvent (weight %)} \times \frac{\text{PTE of VOC (tons/yr)}}{\text{ton}}\right)
\]


Abbreviations
VOC = Volatile Organic Compounds
PTE = Potential to Emit
October 8, 2019

Mark Michael
E & B PAVING INC
1420 S Union St
Kokomo, IN 46902

Re: Public Notice
E & B Paving
Permit Level: FESOP Renewal
Permit Number: 095-41346-03257

Dear Mark Michael:

Enclosed is a copy of your draft FESOP Renewal, Technical Support Document, emission calculations, and the Public Notice.

The Public Notice period will begin the date the Notice is published on the IDEM Official Public Notice website. Publication has been requested and is expected within 2-3 business days. You may check the exact Public Notice begins and ends date here: https://www.in.gov/idem/5474.htm

Please note that as of April 17, 2019, IDEM is no longer required to publish the notice in a newspaper.

OAQ has submitted the draft permit package to the Pendleton Community Public Library 595 E Water St Pendleton IN 46064-1070. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to William Altman, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 3-9664 or dial (317) 233-9664.

Sincerely,

L. Pigott

L. Pigott
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover Letter 4/12/19
October 8, 2019

To: Pendleton Community Public Library 595 E Water St Pendleton IN 46064-1070 (Library)

From: Jenny Acker, Branch Chief
       Permits Branch
       Office of Air Quality

Subject: Important Information to Display Regarding a Public Notice for an Air Permit

Applicant Name: E & B Paving
Permit Number: 095-41346-03257

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. Please make this information readily available until you receive a copy of the final package.

If you have any questions concerning this public review process, please contact Joanne Smiddle-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library updated 4/2019
Notice of Public Comment

October 8, 2019
E & B Paving
095-41346-03257

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has posted on IDEM’s Public Notice website at https://www.in.gov/idem/5474.htm.

The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana’s Air Permitting Program.

Please Note: If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.

Enclosure
PN AAA Cover Letter 4/12/2019
Mail Code 61-53

<table>
<thead>
<tr>
<th>Name and address of Sender</th>
<th>Type of Mail:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204</td>
<td>CERTIFICATE OF MAILING ONLY</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Line</th>
<th>Article Number</th>
<th>Name, Address, Street and Post Office Address</th>
<th>Postage</th>
<th>Handing Charges</th>
<th>Act. Value (If Registered)</th>
<th>Insured Value</th>
<th>Due Send if COD</th>
<th>R.R. Fee</th>
<th>S.D. Fee</th>
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<td>Mark Michael E &amp; B PAVING INC 1420 S Union St Kokomo IN 46902 (Source CAATS)</td>
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<td>Madison County Commissioners 16 E. 9th Suite 104 Anderson IN 46016 (Local Official)</td>
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<td>Anderson Town Council &amp; Mayors Office P.O. Box 2100 Anderson IN 46016 (Local Official)</td>
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<td>Pendleton Community Public Library 595 E Water St Pendleton IN 46064-1070 (Library)</td>
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<td>Madison County Health Department 206 E 9th St Anderson IN 46016-1512 (Health Department)</td>
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<td>Scott Underwood The Herald Bulletin 1133 Jackson St Anderson IN 46016 (Affected Party)</td>
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<td>Scott Slade The Times-Post 104 W High St Pendleton IN 46064 (Affected Party)</td>
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The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50,000 per occurrence. The maximum indemnity payable on Express mail merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on insured and COD mail. See International Mail Manual for limitations of coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.