



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: October 8, 2009

RE: E & B Paving, Inc. / 151-27828-03222

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

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot12/03/07



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Mr. Steve Henderson
E & B Paving, Inc.
286 W 300 N
Anderson, IN 46012

 October 8, 2009

Re: 151-27828-03222
First Significant Revision to
F151-23046-03222

Dear Mr. Henderson:

E & B Paving, Inc. was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F151-23046-03222 on March 5, 2007 for a stationary batch mix asphalt plant located at 286 W. 300 N, Anderson, IN 46012. On April 22, 2009, the Office of Air Quality (OAQ) received an application from the source requesting:

- 1) The addition of refinery blend fuel oil, waste oil, and diesel engine oil to the source's fuel alternatives for the one (1) batch mix dryer and burner; and
- 2) The readjustment of permit limits to 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 Significant Permit Revision, F151-27828-03222.

Additionally, the Office of Air Quality (OAQ) has included permit conditions pertaining to the usage of Blast Furnace Slag and Steel Slag in the aggregate mix of the dryer/mixer. The permit conditions include slag sulfur content specifications, testing conditions, recordkeeping and reporting requirements. Permit conditions regarding steel slag are based on information and stack test results supplied by the company. Changes to permit conditions can be seen in the Proposed Changes section of the included Technical Support Document (TSD).

The attached Technical Support Document (TSD) provides additional explanation of the changes to the source/permit. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(f). Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

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

E & B Paving, Inc.
Angola, Indiana
Permit Reviewer: Jason R. Krawczyk

Page 2 of 2
FESOP SPR No. 151-27828-03222

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.
If you have any questions on this matter, please contact Jason R. Krawczyk, of my staff, at 317-232-8427 or 1-800-451-6027, and ask for extension 2-8427.

Sincerely,



Iryn Galilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Technical Support Document and revised permit

IC/JRK

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



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**Federally Enforceable State Operating Permit
OFFICE OF AIR QUALITY**

**E & B Paving, Inc.
C.R. 300 North
Angola, Indiana 46703**

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

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

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

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

| | |
|--|--|
| Operation Permit No.: 151-23046-03222 | |
| Issued by: <i>Original Signed by:</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality | Issuance Date: March 5, 2007 Expiration Date: March 5, 2017 |
| First Significant Permit Revision No.: F151-27828-03222 | |
| Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality | Issuance Date: October 8, 2009 Expiration Date: March 5, 2017 |

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Attachment A: Fugitive Dust Control Plan

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

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

| | |
|------------------------------|--|
| Source Address: | C.R. 300 North, Angola, IN 46703 |
| Mailing Address: | 286 W. 300 N, Anderson, IN 46012 |
| General Source Phone Number: | (765) 643-5358 |
| SIC Code: | 2951 |
| County Location: | Steuben |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories |

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

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

- (a) One (1) aggregate batch mix dryer, identified as EU-05, constructed in 1990, with a maximum capacity of 250 tons per hour, equipped with one (1) natural gas fired dryer burner, constructed in 1998, with a maximum heat input of 91 million (MM) Btu per hour, using No. 2 distillate fuel oil, Refinery Blend fuel oil, Waste oil, and Diesel Engine oil as back-up fuels, processing slag in the aggregate mix; using one (1) baghouse (ID No. 9) for particulate matter control, exhausting to one (1) stack (ID No. 9);

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

- (b) Feeding, conveying and loading operations, processing a maximum of 250 tons per hour;
- (c) Cold-mix (stockpile mix) asphalt manufacturing operations, constructed in 1990;
- (d) Three (3) 15,000 gallon liquid asphalt storage tanks (ID No. T-01, T-02 and T-03), constructed in 1999;
- (e) One (1) 15,800 gallon fuel oil storage tank (ID No. T-04), constructed in 1999;
- (f) One (1) 10,108 gallon fuel oil storage tank (ID No. T-05), constructed in 1999; and
- (g) One (1) 10,000 gallon fuel oil storage tank (ID No. T-06), constructed in 1999.

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

This stationary source also includes the following insignificant activities:

- (a) One (1) direct-fired hot oil heater, with a maximum heat input of 1.0 MMBtu per hour, firing No. 2 distillate fuel oil with natural gas as back-up fuel, exhausting to one (1) stack;

- (b) Sand, crushed stone and reclaimed asphalt pavement storage piles with a maximum total storage capacity of 60,000 tons; and
- (c) Paved and unpaved roadways [326 IAC 6-4]

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) for 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, F151-23046-03222, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

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

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

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

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

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

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

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within 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 the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

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

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

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

- (a) All terms and conditions of permits established prior to F151-23046-03222 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

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

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

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

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

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

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

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

- (1) That this permit contains a material mistake.
- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

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

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3.

Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

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

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

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

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

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

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

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

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

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

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

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

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

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

- (a) The requirements to obtain a permit modification under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.25 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 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

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

Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

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

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

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

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

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the 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 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) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

The notification which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

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

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

C.15 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 prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval 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 ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) 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.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.17 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.19 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance or ninety (90) days of initial start-up, whichever is later.

C.20 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. 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.21 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) aggregate batch mix dryer, identified as EU-05, constructed in 1990, with a maximum capacity of 250 tons per hour, equipped with one (1) natural gas fired dryer burner, constructed in 1998, with a maximum heat input of 91 million (MM) Btu per hour, using No. 2 distillate fuel oil, Refinery Blend fuel oil, Waste oil, and Diesel Engine oil as back-up fuels, processing slag in the aggregate mix; using one (1) baghouse (ID No. 9) for particulate matter control, exhausting to one (1) stack (ID No. 9);

Under 40 CFR 60, Subpart I, this asphalt plant is considered an affected source.
- (b) Feeding, conveying and loading operations, processing a maximum of 250 tons per hour;
- (c) Cold-mix (stockpile mix) asphalt manufacturing operations, constructed in 1990;
- (d) Three (3) 15,000 gallon liquid asphalt storage tanks (ID No. T-01, T-02 and T-03), constructed in 1999;
- (e) One (1) 15,800 gallon fuel oil storage tank (ID No. T-04), constructed in 1999;
- (f) One (1) 10,108 gallon fuel oil storage tank (ID No. T-05), constructed in 1999; and
- (h) One (1) 10,000 gallon fuel oil storage tank (ID No. T-06), constructed in 1999.

(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]

- (a) In order to render 326 IAC 2-2 not applicable, the amount of asphalt processed shall not exceed 246,910 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 0.893 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 246,910 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 0.368 pounds per ton of asphalt processed.
- (c) The PM2.5 emissions from the dryer/mixer shall not exceed 0.389 pounds per ton of asphalt processed.
- (d) The CO emissions from the dryer/mixer shall not exceed 0.40 pounds per ton of asphalt processed.
- (e) The VOC emissions from the dryer/mixer shall not exceed 0.036 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 18,800 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 limitations combusted in the dryer/mixer burner and all other combustion equipment:

- (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 0.65% ash, 0.400% chlorine, and 0.04% Lead.

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 HCL 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 985 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 1,200,076 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 542,710 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month; and
- (4) Waste oil usage shall not exceed 579,629 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (5) Diesel engine oil shall not exceed 159,619 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (6) Blast Furnace slag usage shall not exceed 18,800 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 NO_x 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 NO_x 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 246,910 tons per twelve (12) consecutive month period
- (b) The VOC emissions from the dryer/mixer shall not exceed 0.036 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

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 PM_{2.5} 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 PM_{2.5} 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 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) NO_x 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.

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

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
D = gallons of Diesel Engine oil used in last 12 months
E_G = 100 lb/million cubic feet of natural gas
E_O = 20 lb/1000 gallons of No. 2 fuel oil
E_R = 55 lb/1000 gallons of Refinery Blend fuel oil
E_W = 19 lb/1000 gallons of Waste oil
E_D = 617.4 lb/1000 gallons of Diesel Engine 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.

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

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
- D = gallons of Diesel Engine 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
- E_G = 0.60 lb/million cubic feet of natural gas
- E_O = 71.00 lb/1000 gallons of No. 2 fuel oil
- E_R = 157 lb/1000 gallons of Refinery Blend fuel oil
- E_W = 147 lb/1000 gallons of Waste oil
- E_D = 40.6 lb/1000 gallons of Diesel Engine oil
- E_B = 0.54lb/ton of Blast Furnace slag used
- E_T = 0.0014lb/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 ninety one (91) 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

- (b) 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 ninety one (91) 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

(c) 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 ninety one (91) 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.

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

D.1.12 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.1.13 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the aggregate dryer/mixer, once per day when the process is in operation and venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.1.14 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, 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;
- (6) The name of the fuel suppliers; and
- (7) A statement from the fuel supplier that certifies the sulfur content of the No. 2 fuel oil, Refinery Blend fuel oil, and/or the Waste oil.

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

- (e) 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.

- (f) To document compliance with Condition D.1.12, 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).
- (g) To document compliance with Condition D.1.13, the Permittee shall maintain the following:
 - (1) 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).
- (h) 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:

- (c) cold-mix (stockpile mix) asphalt manufacturing operations, constructed in 1990.

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

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), the use of cutback asphalt or asphalt emulsion shall not contain 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.

D.2.2 Cold-Mix (Stockpile Mix) VOC Usage [326 IAC 2-8-4] [326 IAC 2-2]

Emulsified asphalt with VOC solvent liquid binder used in the production of cold mix asphalt shall be limited to 60.95 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month. VOC emissions shall be less than 28.28 tons per 12 consecutive month period.

The source shall use emulsified asphalt with solvent, which is defined as containing a maximum of 15 percent (%) 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, shall be 7% or less of the total emulsion by volume.

Compliance with this condition will limit source-wide VOC to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) are not applicable.

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

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 not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION E.1

FACILITY OPERATION CONDITIONS

Emissions Unit Description: Hot-Mix Asphalt Plant

- (a) One (1) aggregate batch mix dryer, identified as EU-05, constructed in 1990, with a maximum capacity of 250 tons per hour, equipped with one (1) natural gas fired dryer burner, constructed in 1998, with a maximum heat input of 91 million (MM) Btu per hour, using No. 2 distillate fuel oil, Refinery Blend fuel oil, Waste oil, and Diesel Engine oil as back-up fuels, processing slag in the aggregate mix; using one (1) baghouse (ID No. 9) for particulate matter control, exhausting to one (1) stack (ID No. 9);

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)]

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

Pursuant to CFR Part 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart I, which are incorporated by reference as 326 IAC 12-1 for the asphalt plant as specified as follows. Pursuant to 40 CFR 60.90(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.

§ 60.90 *Applicability and designation of affected facility.*

- (a) The affected facility to which the provisions of this subpart apply is each hot mix asphalt facility. For the purpose of this subpart, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.
- (b) Any facility under paragraph (a) of this section that commences construction or modification after June 11, 1973, is subject to the requirements of this subpart.

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

§ 60.91 *Definitions.*

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

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

[51 FR 12325, Apr. 10, 1986]

§ 60.92 Standard for particulate matter.

- (a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:
- (1) Contain particulate matter in excess of 90 mg/dscm (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]

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

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

Source Name: E & B Paving, Inc.
Source Address: C.R. 300 North, Angola, Indiana 46703
Mailing Address: 286 W. 300 N, Anderson, IN 46012
FESOP Permit No.: F151-23046-03222

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

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

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

Source Name: E & B Paving, Inc.
Source Address: C.R. 300 North, Angola, Indiana 46703
Mailing Address: 286 W. 300 N, Anderson, IN 46012
FESOP Permit No.: F151-23046-03222

This form consists of 2 pages

Page 1 of 2

- | |
|---|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) 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 2-7-16 |
|---|

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: E & B Paving, Inc.
Source Address: County Road 300 North, Angola, IN 46703
Mailing Address: 286 W 300 N, Anderson, IN 46012
FESOP No.: F151-23046-03222
Facility: Batch mixer and dryer
Parameter: Throughput
Limit: The amount of hot mix asphalt produced in the dryer/burner shall not exceed 246,910 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|---------|--|--|--|
| | Hot Mix Asphalt Produced This Month (tons) | Hot Mix Asphalt Produced Previous 11 Months (tons) | 12 Month Total Hot Mix Asphalt Produced (tons) |
| Month 1 | | | |
| Month 2 | | | |
| Month 3 | | | |

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

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

Attach a signed certification to complete this report.

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

Fuel / Slag Usage Quarterly Report

Page 1 of 2

Source Name: E & B Paving, Inc.
Source Address: C.R. 300 North, Angola, Indiana 46703
Mailing Address: 286 W. 300 N, Anderson, IN 46012
FESOP Permit No.: F151-23046-03222
Facility: Batch mixer and dryer
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:

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

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
D = gallons of Diesel Engine oil used in last 12 months
E_G = 100 lb/million cubic feet of natural gas
E_O = 20 lb/1000 gallons of No. 2 fuel oil
E_R = 55 lb/1000 gallons of Refinery Blend fuel oil
E_W = 19 lb/1000 gallons of Waste oil
E_D = 617.4 lb/1000 gallons of Diesel Engine oil

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

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

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
D = gallons of Diesel Engine 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
E_G = 0.60 lb/million cubic feet of natural gas
E_O = 71.00 lb/1000 gallons of No. 2 fuel oil
E_R = 157 lb/1000 gallons of Refinery Blend fuel oil
E_W = 147 lb/1000 gallons of Waste oil
E_D = 40.6 lb/1000 gallons of Diesel Engine oil
E_B = 0.54lb/ton of Blast Furnace slag used
E_T = 0.0014lb/ton of Steel slag used

Multiple Fuel / Slag Usage Quarterly Report

QUARTER: _____ YEAR: _____

| Month | | Column 1 | Column 2 | Column 1 + Column 2 | Equation Results |
|---------|-----------------------------------|---------------------|-----------------------------|-------------------------|---------------------------------------|
| | Fuel Types / Slag (units) | Usage This Month | Usage Previous 11 Months | Usage 12 Month Total | Emissions (tons per 12 months) |
| Month 1 | Natural Gas (million cubic feet) | | | | Nitrogen Oxides = Sulfur Dioxide = |
| | No. 2 Fuel Oil (gallons) | | | | |
| | Refinery Blend Fuel Oil (gallons) | | | | |
| | Waste Fuel Oil (gallons) | | | | |
| | Diesel Engine Oil (gallons) | | | | |
| | Blast Furnace Slag (tons) | | | | |
| | Steel Slag Usage (tons) | | | | |
| Month 2 | Natural Gas (million cubic feet) | | | | Nitrogen Oxides = Sulfur Dioxide = |
| | No. 2 Fuel Oil (gallons) | | | | |
| | Refinery Blend Fuel Oil (gallons) | | | | |
| | Waste Fuel Oil (gallons) | | | | |
| | Diesel Engine Oil (gallons) | | | | |
| | Blast Furnace Slag (tons) | | | | |
| | Steel Slag Usage (tons) | | | | |
| Month 3 | Natural Gas (million cubic feet) | | | | Nitrogen Oxides = Sulfur Dioxide = |
| | No. 2 Fuel Oil (gallons) | | | | |
| | Refinery Blend Fuel Oil (gallons) | | | | |
| | Waste Fuel Oil (gallons) | | | | |
| | Diesel Engine Oil (gallons) | | | | |
| | Blast Furnace Slag (tons) | | | | |
| | Steel Slag Usage (tons) | | | | |

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: E & B Paving, Inc.
Source Address: County Road 300 North, Angola, IN 46703
Mailing Address: 286 W 300 N, Anderson, IN 46012
FESOP No.: F151-23046-03222
Facility: Cold-mix (stockpile mix) asphalt manufacturing operations
Parameter: VOC solvent in emulsified asphalt binder used in the production of cold mix asphalt
Limit: Emulsified asphalt with VOC solvent liquid binder used in the production of cold mix asphalt shall be limited to 60.21 tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|---------|---------------------------------------|---|---|
| | VOC solvent usage This Month (ton) | VOC solvent usage Previous 11 Months (ton) | 12 Month Total VOC solvent usage (ton) |
| Month 1 | | | |
| Month 2 | | | |
| Month 3 | | | |

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

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

Attach a signed certification to complete this report.

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

Source Name: E & B Paving, Inc.
Source Address: C.R. 300 North, Angola, Indiana 46703
Mailing Address: 286 W. 300 N, Anderson, IN 46012
FESOP Permit No.: F151-23046-03222

Months: _____ to _____ Year: _____

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

ATTACHMENT A

ASPHALT PLANT SITE FUGITIVE DUST CONTROL PLAN

1. Fugitive particulate matter (dust) emissions from interior roads and parking lots shall be controlled by one or more of the following measures:
 - A. Paving with asphalt.
 - B. Treating with emulsified asphalt on an as needed basis.
 - C. Treating with calcium chloride on an as needed basis.
 - D. Treating with water on an as needed basis.
2. Fugitive particulate matter (dust) emissions from aggregate stockpiles shall be controlled by one or more of the following measures:
 - A. Clean and maintain stockpile areas.
 - B. Treating around the stockpile areas with water on an as needed basis.
 - C. Treating the stockpiles with water on an as needed basis.
3. Fugitive particulate matter (dust) emissions from conveying of aggregates shall be controlled by treating with water on an as needed basis.
4. Fugitive particulate matter (dust) emissions from the transferring of aggregates shall be controlled by one of the following measures:
 - A. Locate stockpiles as close as possible to feed bins.
 - B. Limit transfer points to three foot drops or less.
 - C. Apply water on an as needed basis.
5. Fugitive particulate matter (dust) emissions from transporting of aggregates shall be controlled by one of the following measures:
 - A. Tarping the aggregate hauling vehicles.
 - B. 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.

E & B Paving Inc.

260 East County Road 300 North - Angola, IN



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

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

Source Background and Description

| | |
|---|---|
| Source Name: | E & B Paving, Inc. |
| Source Location: | C.R. 300 North, Angola, IN 46703 |
| County: | Steuben |
| SIC Code: | 2951 |
| Operation Permit No.: | F 151-23046-03222 |
| Operation Permit Issuance Date: | March 5, 2007 |
| Significant Permit Revision No.: | 151-27828-03222 |
| Permit Reviewer: | Jason R. Krawczyk |

On September 2, 2009, the Office of Air Quality (OAQ) had a notice published in the Herald Republican, Angola, Indiana, stating that E & B Paving, Inc. had applied for a Significant Permit Revision related to:

- 1) The addition of refinery blend fuel oil, waste oil, and diesel engine oil to the source's fuel alternatives for the one (1) batch mix dryer and burner; and
- 2) The readjustment of permit limits to 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 Significant Permit Revision, F151-27828-03222.

The notice also stated that the OAQ proposed to issue a Significant Permit Revision for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

No comments were received during the public notice period.

Additional Changes

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

- (a) IDEM has revised Condition D.1.2 as follows:

...
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:

- ...
(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 18,800 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.**

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

...

(b) IDEM has revised Condition D.1.4 as follows:

...

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.

...

| |
|---------------------|
| IDEM Contact |
|---------------------|

- (a) Questions regarding this proposed Significant Permit Revision can be directed to Jason R. Krawczyk at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8427 or toll free at 1-800-451-6027 extension 2-8427.
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Indiana Department of Environmental Management Office of Air Quality

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

Source Description and Location

| | |
|---|---|
| Source Name: | E & B Paving, Inc. |
| Source Location: | C.R. 300 North, Angola, IN 46703 |
| County: | Steuben |
| SIC Code: | 2951 |
| Operation Permit No.: | F 151-23046-03222 |
| Operation Permit Issuance Date: | March 5, 2007 |
| Significant Permit Revision No.: | 151-27828-03222 |
| Permit Reviewer: | Jason R. Krawczyk |

On April 22, 2009, the Office of Air Quality (OAQ) received an application from E & B Paving, Inc. related to a modification to an existing batch mix asphalt plant.

Existing Approvals

The source was issued FESOP Renewal No. 151-23046-03222 on March 5, 2007. The source has since received no additional approvals.

County Attainment Status

The source is located in Steuben County.

| Pollutant | Designation |
|--|---|
| SO ₂ | Better than national standards. |
| CO | Unclassifiable or attainment effective November 15, 1990. |
| O ₃ | Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹ |
| PM ₁₀ | Unclassifiable effective November 15, 1990. |
| NO ₂ | Cannot be classified or better than national standards. |
| Pb | Not designated. |
| ¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5. | |

(a) Ozone Standards

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. Steuben 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

Steuben County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules was July 15th, 2008. Indiana has three years from

the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.

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

Fugitive Emissions

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

Status of the Existing Source

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

| Process/emission unit | Potential To Emit of the Entire Source Prior to Revision (tons/year) | | | | | | | |
|---|--|--------------|-----------------|--------------|--------------|-----------------|-----------------|---------------|
| | PM | PM-10 | SO ₂ | VOC | CO | NO _x | Individual HAPs | Combined HAPs |
| aggregate batch mix dryer and burner ⁽¹⁾ | 191.04 | 81.22 | 97.71 | 1.98 | 96.76 | 29.03 | 0.65 | 1.84 |
| hot oil heater | 0.06 | 0.10 | 2.19 | 0.02 | 0.37 | 0.63 | Negl. | Negl. |
| conveying / handling | 12.11 | 5.73 | -- | -- | -- | -- | -- | -- |
| unpaved roads | 45.02 | 11.47 | -- | -- | -- | -- | -- | -- |
| storage | 0.46 | 0.16 | -- | -- | -- | -- | -- | -- |
| load-out | 1.21 | 1.21 | -- | 12.29 | 2.77 | -- | Negl. | Negl. |
| cold mix VOC storage | -- | -- | -- | 85.60 | -- | -- | -- | -- |
| Total Emissions | 249.90 | 99.90 | 99.90 | 99.90 | 99.90 | 29.66 | <10 | <25 |

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the unlimited potential to emit HAPs are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by E & B Paving, Inc. on April 22, 2009, relating to:

- 1) The addition of refinery blend fuel oil, waste oil, and diesel engine oil to the source's fuel alternatives for the one (1) batch mix dryer and burner; and
- 2) The readjustment of permit limits to 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 Significant Permit Revision, F151-27828-03222.

Additionally, the Office of Air Quality (OAQ) has included permit conditions pertaining to the usage of Blast Furnace Slag and Steel Slag in the aggregate mix of the dryer/mixer. The permit conditions include slag sulfur content specifications, testing conditions, recordkeeping and reporting requirements. Permit conditions regarding steel slag are based on information and stack test results supplied by the company. Changes to permit conditions can be seen in the Proposed Changes section of this Technical Support Document (TSD).

| |
|---------------------------|
| Enforcement Issues |
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There are no pending enforcement actions related to this revision.

| |
|------------------------------|
| Emission Calculations |
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See Appendix A of this TSD for detailed emission calculations.

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| Permit Level Determination – FESOP Revision |
|--|

This FESOP is being revised through a FESOP Significant Permit Revision pursuant to 326 IAC 2-8-11.1(g)(2) because it involves adjustment to the existing source-wide emissions limitations to maintain the FESOP status of the source (see PTE of the Entire Source After The Issuance of the FESOP Revision Section).

| |
|--|
| PTE of the Entire Source After Issuance of the FESOP Revision |
|--|

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

| Process Description | Potential to Emit of the Entire Source after Issuance of Revision (tons/year) | | | | | | | | |
|---|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------------------|---------------------|
| | Criteria Pollutants | | | | | | | Hazardous Air Pollutants | |
| | PM | PM10 | PM2.5 | SO2 | NOx | VOC | CO | Total HAPs | Worst Single HAP |
| Ducted Emissions | | | | | | | | | |
| Fuel Combustion (worst case) | 9.27 | 7.39 | 7.39 | 42.60 | 49.27 | 3.91 | 41.39 | 5.04 | 3.83 HCl |
| Dryer/Mixer | 110.23 | 45.43 | 47.98 | 10.86 | 14.81 | 4.44 | 49.38 | 1.32 | 0.38 HCOH |
| Dryer/Mixer Slag Processing (worst case) | - | - | - | 5.08 | - | - | - | - | - |
| Hot Oil Heater | 0.06 | 0.10 | 0.10 | 2.22 | 0.63 | 0.02 | 0.37 | 0.01 | 0.008 Hexane |
| Worst Case Emissions | 110.29 | 45.54 | 48.08 | 49.90 | 49.90 | 4.47 | 49.75 | 5.05 | 3.83 HCl |
| Fugitive Emissions | | | | | | | | | |
| Asphalt Load-Out, Silo Filling, On-Site Yard | 0.07 | 0.07 | 0.07 | 0 | 0 | 1.50 | 0.15 | 0.02 | 0.00 |
| Material Storage Piles | 0.46 | 0.16 | 0.16 | 0 | 0 | 0 | 0 | 0 | 0 |
| Material Processing and Handling | 0.71 | 0.34 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0 |
| Material Crushing, Screening, and Conveying | 3.50 | 1.28 | 1.28 | 0 | 0 | 0 | 0 | 0 | 0 |
| Paved and Unpaved Roads (worst case) | 9.86 | 2.51 | 0.25 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cold Mix Asphalt Production | 0 | 0 | 0 | 0 | 0 | 28.28 | 0 | 7.38 | 2.55 Xylenes |
| Gasoline Dispensing | 0 | 0 | 0 | 0 | 0 | 0.00 | 0 | 0.00 | 0.00 Xylenes |
| Volatile Organic Liquid Storage Vessels | 0 | 0 | 0 | 0 | 0 | negl. | 0 | negl. | negl. |
| Total Fugitive Emissions | 14.61 | 4.36 | 1.82 | 0 | 0 | 29.79 | 0.15 | 7.40 | 2.55 Xylenes |
| Total Limited Emissions | 124.90 | 49.90 | 49.90 | 49.90 | 49.90 | 34.25 | 49.90 | 12.45 | 3.83 HCl |
| Title V Major Source Thresholds | NA | 100 | 100 | 100 | 100 | 100 | 100 | 25 | 10 |
| PSD Major Source Thresholds | 250 | 250 | 250 | 250 | 250 | 250 | 250 | NA | NA |
| (1) PTE after Production Limitation. negl. = negligible * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. | | | | | | | | | |

(a) FESOP Status

This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).

(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, 0.200% chlorine, and 0.010% 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 985 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 1,200,076 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 542,710 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month; and
- (4) Waste oil usage shall not exceed 579,629 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (5) Diesel engine oil shall not exceed 159,619 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (6) The Blast Furnace slag usage shall not exceed 18,800 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) NO_x 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:

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

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
- D = gallons of Diesel Engine oil used in last 12 months
- E_G = 100 lb/million cubic feet of natural gas
- E_O = 20 lb/1000 gallons of No. 2 fuel oil
- E_R = 55 lb/1000 gallons of Refinery Blend fuel oil
- E_W = 19 lb/1000 gallons of Waste oil
- E_D = 617.4 lb/1000 gallons of Diesel Engine 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:

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

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
- D = gallons of Diesel Engine 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
- E_G = 0.60 lb/million cubic feet of natural gas
- E_O = 71.00 lb/1000 gallons of No. 2 fuel oil
- E_R = 157 lb/1000 gallons of Refinery Blend fuel oil
- E_W = 147 lb/1000 gallons of Waste oil
- E_D = 40.6 lb/1000 gallons of Diesel Engine oil
- E_B = 0.54lb/ton of Blast Furnace slag used
- E_T = 0.0014lb/ton of Steel slag used

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 NO_x 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 246,910 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 0.368 pounds per ton of asphalt processed.
 - (c) The PM2.5 emissions from the dryer/mixer shall not exceed 0.389 pounds per ton of asphalt processed.
 - (d) The CO emissions from the dryer/mixer shall not exceed 0.40 pounds per ton of asphalt processed.
 - (e) The VOC emissions from the dryer/mixer shall not exceed 0.036 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.

- (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.

(b) PSD Minor Source

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

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

- (1) The amount of asphalt processed shall not exceed 246,910 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 0.893 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.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

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

National Emission Standards for Hazardous Air Pollutants (NESHAP)

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

Compliance Assurance Monitoring (CAM)

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

State Rule Applicability Determination

The existing state rule applicability will not change as a result of the proposed revision.

Compliance Determination, Monitoring and Testing Requirements

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

| Emission Unit | Control Device | Timeframe for Testing | Pollutant | Frequency of Testing | Limit or Requirement (lb/ton of asphalt) |
|---------------|----------------|--|-----------|---------------------------|--|
| EU-05 | Baghouse No. 9 | Within five (5) years of the date of the last valid compliance demonstration | PM | Once every five (5) years | 0.893 lb PM/ton |
| | | | PM10 | | 0.368 lb PM10/ton |
| | | | PM2.5 | | 0.389 lb PM2.5/ton |
| | | 180 days after initial use of Blast Furnace Slag | SO2 | One Time | 0.54 lb SO2/ton |

The Permittee shall perform PM2.5 testing of the aggregate dryer/mixer at least once every five (5) years from the date of the last valid compliance demonstration, to be run concurrently with the PM and PM10 testing. The existing PM and PM10 compliance requirements will not change as a result of this revision.

The Permittee shall perform SO2 testing for the aggregate dryer within one hundred eighty days (180) of initial use of Blast Furnace slag in the aggregate mix.

- (b) The existing monitoring requirements will not change as a result of this revision. The source shall continue to comply with the applicable requirements and permit conditions as contained in FESOP No: 151-23046-03222, issued on March 5, 2007.

Proposed Changes

- (a) The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

...

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

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

- (a) One (1) aggregate batch mix dryer, identified as EU-05, constructed in 1990, with a maximum capacity of 250 tons per hour, equipped with one (1) natural gas fired dryer burner, constructed in 1998, with a maximum heat input of 91 million (MM) Btu per hour, using No. 2 distillate fuel oil, **Refinery Blend fuel oil, Waste oil, and Diesel Engine oil** as back-up fuels, **processing slag in the aggregate mix**; using one (1) baghouse (ID No. 9) for particulate matter control, exhausting to one (1) stack (ID No. 9);

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

...

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) aggregate batch mix dryer, identified as EU-05, constructed in 1990, with a maximum capacity of 250 tons per hour, equipped with one (1) natural gas fired dryer burner, constructed in 1998, with a maximum heat input of 91 million (MM) Btu per hour, using No. 2 distillate fuel oil, **Refinery Blend fuel oil, Waste oil, and Diesel Engine oil** as back-up fuels, **processing slag in the aggregate mix**; using one (1) baghouse (ID No. 9) for particulate matter control, exhausting to one (1) stack (ID No. 9);

Under 40 CFR 60, Subpart I, this asphalt plant is considered an affected source.

...

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

...

D.1.1 Particulate Matter (PM) [326 IAC 2-2]

- (a) **In order to render 326 IAC 2-2 not applicable, the amount of asphalt processed shall not exceed 246,910 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 0.893 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.1.4 Particulate Matter (PM₁₀) [326 IAC 2-8-4] [326 IAC 2-2]~~

~~Pursuant to 326 IAC 2-8-4, the following shall apply:~~

- ~~(a) PM₁₀ emissions from the aggregate dryer and mixer shall not exceed 0.336 pound PM₁₀ per ton of hot mix asphalt produced; and~~
- ~~(b) The amount of hot mix asphalt produced in the drum mixer and dryer shall not exceed 483,813 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~

~~This will limit the source wide potential to emit PM₁₀ to less than 100 tons per year. Compliance with this limit will satisfy 326 IAC 2-8-4 (FESOP). Therefore, the requirements of 326 IAC 2-7, Part 70 and 326 IAC 2-2, Prevention of Significant Deterioration (PSD), do not apply.~~

~~D.1.5 Carbon monoxide (CO) and Nitrogen Oxides (NO_x) [326 IAC 2-8] [326 IAC 2-2]~~

~~Pursuant to 326 IAC 2-8-4, the following shall apply:~~

- ~~(a) CO emissions from the batch mix dryer shall not exceed 0.40 pound of CO per ton of hot mix asphalt produced.~~
- ~~(b) NO_x emissions for the batch mix dryer shall not exceed 0.12 pound of NO_x per ton of hot mix asphalt produced.~~
- ~~(c) The amount of hot mix asphalt produced in the drum mixer and dryer shall not exceed 483,813 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~

~~This limits total source wide CO and NO_x emissions to less than 100 tons per year. Compliance with this limit will satisfy 326 IAC 2-8-4 and render the requirements of Part 70 (326 IAC 2-7) and PSD (326 IAC 2-2) not applicable.~~

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

~~Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 91 million British thermal units per hour burner for the aggregate batch mix dryer shall be limited to 0.5 pound per MMBtu heat input when using distillate oils. This is equivalent to a maximum allowable sulfur content of (0.5%) for No. 2 distillate fuel oil.~~

~~Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average, with compliance determined at the end of each month.~~

~~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 246,910 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 0.368 pounds per ton of asphalt processed.~~
- ~~(c) The PM2.5 emissions from the dryer/mixer shall not exceed 0.389 pounds per ton of asphalt processed.~~

- (d) The CO emissions from the dryer/mixer shall not exceed 0.40 pounds per ton of asphalt processed.
- (e) The VOC emissions from the dryer/mixer shall not exceed 0.036 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 limitations, combined with the limited PTE from other emission units at this source, shall limit the source-wide total potential to emit PM₁₀, PM_{2.5}, 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, PM_{2.5}, 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 limitations combusted in the dryer/mixer burner and all other combustion equipment:

- (a) The HCl emissions shall not exceed 26.4 pounds of HCl per 1,000 gallons of waste oil burned.
- (b) The waste oil combusted shall not contain more than 0.65% ash, 0.400% chlorine, and 0.04% Lead.

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 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.

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.1.7 No. 2 Fuel Usage and Equivalent, Sulfur Dioxide (SO₂) [326 IAC 2-8-4]~~

~~Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:~~

- ~~(a) The sulfur content of the No. 2 fuel oil used in the 91 MMBtu per hour burner for the aggregate dryer shall not exceed 0.5 percent.~~
- ~~(b) The input of No. 2 distillate fuel oil with a maximum sulfur content of 0.5% to the 91 MMBtu per hour burner for the aggregate dryer shall be limited to 2,752,394 gallons per~~

~~twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, the SO₂ emissions are limited to less than 100 tons per year.~~

~~(c) For purposes of determining compliance, the following shall apply:~~

~~every million cubic feet (MMCF) of natural gas burned shall be equivalent to 8.0 gallons of No. 2 distillate fuel oil based on SO₂ emissions, such that the total input of No. 2 distillate fuel oil and No. 2 distillate fuel oil equivalent input does not exceed the limit specified.~~

~~Compliance with the above limits shall render the requirements of 326 IAC 2-7 (Part 70) not applicable.~~

D.1.4 Fuel 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.**
- (5) The sulfur content of the Steel slag shall not exceed 0.66 percent by weight.**

(b) Single Fuel Usage Limitations:

When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer burner 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 985 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 1,200,076 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 542,710 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month; and**
- (4) Waste oil usage shall not exceed 579,629 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.**
- (5) Diesel engine oil shall not exceed 159,619 gallons per twelve (12)**

consecutive month period, with compliance determined at the end of each month.

- (6) Blast Furnace slag usage shall not exceed 18,800 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) NO_x 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 NO_x 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 NO_x 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 246,910 tons per twelve (12) consecutive month period
- (b) The VOC emissions from the dryer/mixer shall not exceed 0.036 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.1.87 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

D.1.98 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.1.3 and D.1.4~~**D.1.1(b), D.1.2(b), and D.1.2(c)**, the Permittee shall perform PM, ~~and~~ 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 ~~this~~ **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 be conducted in accordance with Section C- Performance Testing.**

~~D.1.10 Sulfur Dioxide Emissions and Sulfur Content~~

~~Compliance shall be determined utilizing one of the following options.~~

- ~~(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil by:
 - ~~(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or~~
 - ~~(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - ~~(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and~~
 - ~~(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.~~~~~~
- ~~(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the aggregate dryer and mixer using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.~~
- ~~(c) In order to demonstrate compliance with Conditions D.1.5 and D.1.6 the Permittee shall demonstrate that weight percent sulfur dioxide in the fuels used does not exceed one half of a percent (0.5%) by weight when operating on No. 2 distillate fuel oil using the methods described in (a) of this condition.~~

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

~~D.1.11 Particulate Matter (PM and PM₁₀)~~

~~In order to comply with Conditions D.1.3 and D.1.4, the baghouse for particulate control shall be in operation and control emissions from the aggregate dryer/mixer at all times that the aggregate dryer/mixer is in operation.~~

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 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, the Permittee shall limit fuel usage in the dryer/mixer burner according to the following formulas:

- (1) NO_x 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.

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

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
D = gallons of Diesel Engine oil used in last 12 months
E_G = 100 lb/million cubic feet of natural gas
E_O = 20 lb/1000 gallons of No. 2 fuel oil
E_R = 55 lb/1000 gallons of Refinery Blend fuel oil
E_W = 19 lb/1000 gallons of Waste oil
E_D = 617.4 lb/1000 gallons of Diesel Engine 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.

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

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
- D** = gallons of Diesel Engine 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
- E_G** = 0.60 lb/million cubic feet of natural gas
- E_O** = 71.00 lb/1000 gallons of No. 2 fuel oil
- E_R** = 157 lb/1000 gallons of Refinery Blend fuel oil
- E_W** = 147 lb/1000 gallons of Waste oil
- E_D** = 40.6 lb/1000 gallons of Diesel Engine oil
- E_B** = 0.54lb/ton of Blast Furnace slag used
- E_T** = 0.0014lb/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 Conditions 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 ninety one (91) 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

(b) 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 ninety one (91) 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

- (c) 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 ninety one (91) 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.

...

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

D.1.15 Record Keeping Requirements

- (a) ~~To document compliance with conditions D.1.3, D.1.4 and D.1.5, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the annual throughput limits to the aggregate dryers established in conditions D.1.3, D.1.4 and D.1.5.~~
- (1) ~~Calendar dates covered in the compliance determination period; and~~
- (2) ~~Hot mix asphalt produced in the batch mix dryer per month since the last compliance determination period.~~
- (b) ~~To document compliance with Conditions D.1.6, and D.1.7, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) below shall be complete and sufficient to establish compliance with the SO₂ emission limits established in Conditions D.1.6, and D.1.7.~~
- (1) ~~Calendar dates covered in the compliance determination period;~~
- (2) ~~Actual No. 2 fuel oil usage and equivalent per month since last compliance determination period and equivalent SO₂ emissions; and~~
- (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.~~
- ~~If the fuel supplier certification is used to demonstrate compliance the following, as a minimum shall be maintained:~~
- (4) ~~Fuel supplier certifications.~~
- (5) ~~The name of the fuel supplier; and~~
- (6) ~~A statement from the fuel supplier that certifies the sulfur content of the fuel oil.~~
- ~~The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. 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.~~
- (c) ~~The Permittee shall maintain records sufficient to verify compliance with the procedures specified in Condition D.1.10. Records shall be maintained for a period of five (5) years and shall be made available upon request by IDEM, OAQ.~~
- (d) ~~To document compliance with Condition D.1.12, the Permittee shall maintain daily records of visible emission notations of the aggregate dryer and batch mixer stack exhaust.~~
- (e) ~~To document compliance with Condition D.1.13, the Permittee shall maintain daily records of the pressure drop.~~
- (f) ~~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 condition D.1.3, D.1.4, D.1.5 and D.1.7 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 an “authorized individual” as defined by 326 IAC 2-1.1-1(1).~~

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, 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;**
- (6) The name of the fuel suppliers; and**
- (7) A statement from the fuel supplier that certifies the sulfur content of the No. 2 fuel oil, Refinery Blend fuel oil, and/or the Waste oil.**

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

- (e) 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.**
- (f) To document compliance with Condition D.1.12, 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).**
- (g) To document compliance with Condition D.1.13, the Permittee shall maintain the following:**
 - (1) 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).**
- (h) 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 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(c) cold-mix (stockpile mix) asphalt manufacturing operations, constructed in 1990.

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

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

...
D.2.2 Cold-Mix (Stockpile Mix) VOC Usage [326 IAC 2-8-4] [326 IAC 2-2]

Emulsified asphalt with VOC solvent liquid binder used in the production of cold mix asphalt shall be limited to ~~184.48~~ **60.21** tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month. VOC emissions shall be less than ~~85.60~~ **27.94** tons per 12 consecutive month period.

The source shall use emulsified asphalt with solvent, which is defined as containing a maximum of 15 percent (%) 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, shall be 7% or less of the total emulsion by volume.

Compliance with this condition will limit source-wide VOC to less than 100 tons per **twelve (12)** consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) are not applicable.

...

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

FESOP Quarterly Report

Source Name: E & B Paving, Inc.

...

Limit: Emulsified asphalt with VOC solvent liquid binder used in the production of cold mix asphalt shall be limited to ~~91~~ **60.21** tons of VOC solvent per twelve (12) consecutive month period, with compliance determined at the end of each month.

...

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

FESOP Quarterly Report

Source Name: E & B Paving, Inc.

...

Limit: The amount of hot mix asphalt produced in the batch mixer and dryer shall be limited to ~~483,843~~ **246,910** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

...

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

FESOP Quarterly Report

Source Name: _____ E & B Paving, Inc.
 Source Address: _____ County Road 300 North, Angola, IN 46703 _____
 Mailing Address: _____ 286 W 300 N, Anderson, IN 46012 _____
 FESOP No.: _____ F151 23046 03222
 Facility: _____ 91 MMBtu per hour burner for the aggregate dryer
 Parameter: _____ No. 2 distillate fuel oil usage to limit SO₂ emissions
 Limit: _____ The usage of No. 2 distillate fuel oil with a maximum sulfur content of 0.5% in the 91 MMBtu per hour burner for the aggregate dryer shall be limited to 2,752,394 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, where every million cubic feet (MMCF) of natural gas burned shall be equivalent to 8.0 gallons of No. 2 distillate fuel oil. This limit is equivalent to SO₂ emissions of less than 100 tons per year.

YEAR: _____

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|---------|--|--|--|
| | No. 2 fuel oil and equivalent usage This Month (gallons) | No. 2 fuel oil and equivalent usage Previous 11 Months (gallons) | 12 Month Total No. 2 fuel oil and equivalent usage (gallons) |
| Month 1 | | | |
| Month 2 | | | |
| Month 3 | | | |

_____ No deviation occurred in this quarter.

_____ Deviation/s occurred in this quarter.

_____ Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

...

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

Fuel / Slag Usage Quarterly Report

Page 1 of 2

Source Name: E & B Paving, Inc.
Source Address: C.R. 300 North, Angola, Indiana 46703
Mailing Address: 286 W. 300 N, Anderson, IN 46012
FESOP Permit No.: F151-23046-03222
Facility: Batch mixer and dryer
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:

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

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
D = gallons of Diesel Engine oil used in last 12 months
E_G = 100 lb/million cubic feet of natural gas
E_O = 20 lb/1000 gallons of No. 2 fuel oil
E_R = 55 lb/1000 gallons of Refinery Blend fuel oil
E_W = 19 lb/1000 gallons of Waste oil
E_D = 617.4 lb/1000 gallons of Diesel Engine oil

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

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

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
D = gallons of Diesel Engine 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
E_G = 0.60 lb/million cubic feet of natural gas
E_O = 71.00 lb/1000 gallons of No. 2 fuel oil
E_R = 157 lb/1000 gallons of Refinery Blend fuel oil
E_W = 147 lb/1000 gallons of Waste oil
E_D = 40.6 lb/1000 gallons of Diesel Engine oil
E_B = 0.54lb/ton of Blast Furnace slag used
E_T = 0.0014lb/ton of Steel slag used

Multiple Fuel / Slag Usage Quarterly Report

QUARTER: _____ YEAR: _____

| Month | | Column 1 | Column 2 | Column 1 + Column 2 | Equation Results |
|---------|-----------------------------------|---------------------|-----------------------------|-------------------------|---------------------------------------|
| | Fuel Types / Slag (units) | Usage This Month | Usage Previous 11 Months | Usage 12 Month Total | Emissions (tons per 12 months) |
| Month 1 | Natural Gas (million cubic feet) | | | | Nitrogen Oxides = Sulfur Dioxide = |
| | No. 2 Fuel Oil (gallons) | | | | |
| | Refinery Blend Fuel Oil (gallons) | | | | |
| | Waste Fuel Oil (gallons) | | | | |
| | Diesel Engine Oil (gallons) | | | | |
| | Blast Furnace Slag Usage (tons) | | | | |
| | Steel Slag Usage (tons) | | | | |
| Month 2 | Natural Gas (million cubic feet) | | | | Nitrogen Oxides = Sulfur Dioxide = |
| | No. 2 Fuel Oil (gallons) | | | | |
| | Refinery Blend Fuel Oil (gallons) | | | | |
| | Waste Fuel Oil (gallons) | | | | |
| | Diesel Engine Oil (gallons) | | | | |
| | Blast Furnace Slag Usage (tons) | | | | |
| | Steel Slag Usage (tons) | | | | |
| Month 3 | Natural Gas (million cubic feet) | | | | Nitrogen Oxides = Sulfur Dioxide = |
| | No. 2 Fuel Oil (gallons) | | | | |
| | Refinery Blend Fuel Oil (gallons) | | | | |
| | Waste Fuel Oil (gallons) | | | | |
| | Diesel Engine Oil (gallons) | | | | |
| | Blast Furnace Slag Usage (tons) | | | | |
| | Steel Slag Usage (tons) | | | | |

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.

...

- (b) Upon further review, IDEM, OAQ has decided to make the following changes to the permit. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

- (1) IDEM has decided to remove the information regarding the Authorized Individual from Section A.1 of the permit.

...

A.1 General Information [326 IAC 2-8-3(b)]

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

Authorized Individual: ~~_____~~ Steve Henderson, Regulatory Affairs Director

...

- (2) IDEM has updated the B and C Conditions within the permit. The permit term has been extended to a term of ten (10) years since FESOP 151-23046-03222 is the source's second FESOP Renewal.

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, 151-23046-03222, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.~~

~~(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.~~

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

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

~~(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or~~

~~(b) the emission unit to which the condition pertains permanently ceases operation.~~

B.4 Enforceability [326 IAC 2-8-6]

~~Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.~~

B.5 Severability [326 IAC 2-8-4(4)]

~~The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.~~

~~B.6 — Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]~~

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

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

~~(a) — The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.~~

~~(b) — For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.~~

~~B.8 — 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.9 — Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]~~

~~(a) — Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.~~

~~(b) — One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.~~

~~(c) — An "authorized individual" is defined at 326 IAC 2-1.1-1(1).~~

~~B.10 — Annual Compliance Certification [326 IAC 2-8-5(a)(1)]~~

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

~~Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251~~

~~(b) — The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.~~

~~(c) — The annual compliance certification report shall include the following:~~

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

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

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

- (a) ~~If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:~~
 - (1) ~~Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;~~
 - (2) ~~A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and~~
 - (3) ~~Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.~~
- (b) ~~A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- (c) ~~To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.~~

~~B.12 Emergency Provisions [326 IAC 2-8-12]~~

- (a) ~~An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.~~
- (b) ~~An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:~~
 - (1) ~~An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;~~
 - (2) ~~The permitted facility was at the time being properly operated;~~

~~(3) — During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;~~

~~(4) — For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;~~

~~Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or~~

~~Telephone Number: 317-233-0178 (ask for Compliance Section)~~

~~Facsimile Number: 317-233-6865~~

~~Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.~~

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

~~Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251~~

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

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

~~(A) — A description of the emergency;~~

~~(B) — Any steps taken to mitigate the emissions; and~~

~~(C) — Corrective actions taken.~~

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

~~(6) — The Permittee immediately took all reasonable steps to correct the emergency.~~

~~(c) — In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.~~

~~(d) — This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.~~

~~(e) — The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(e)(6) be revised in response to an emergency.~~

- (f) ~~Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.~~
- (g) ~~Operations may continue during an emergency only if the following conditions are met:~~
- (1) ~~If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.~~
- (2) ~~If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:~~
- (A) ~~The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and~~
- (B) ~~Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.~~
- ~~Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.~~
- (h) ~~The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.~~

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

- (a) ~~All terms and conditions of permits established prior to 151-23046-03222 and issued pursuant to permitting programs approved into the state implementation plan have been either:~~
- (1) ~~incorporated as originally stated,~~
- (2) ~~revised, or~~
- (3) ~~deleted.~~
- (b) ~~All previous registrations and permits are superseded by this permit.~~

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

~~The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.~~

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

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

~~Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251~~

~~using the attached Quarterly Deviation and Compliance Monitoring Report, or its~~

equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

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

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination

~~[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]~~

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. ~~[326 IAC 2-8-4(5)(C)]~~ The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. ~~[326 IAC 2-8-8(a)]~~

- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. ~~[326 IAC 2-8-8(b)]~~

- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. ~~[326 IAC 2-8-8(c)]~~

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

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:

- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

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

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

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

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

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

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

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

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

- (a) ~~Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;~~
- (b) ~~As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;~~
- (c) ~~As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;~~
- (d) ~~As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and~~
- (e) ~~As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of~~

~~assuring compliance with this permit or applicable requirements.~~

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

~~(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.~~

~~(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:~~

~~Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251~~

~~The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

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

~~B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]~~

~~(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.~~

~~(b) Failure to pay may result in administrative enforcement action or revocation of this permit.~~

~~(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.~~

~~B.24 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]~~

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

~~SECTION C SOURCE OPERATION CONDITIONS~~

Entire Source

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

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

~~Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326~~

~~IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.~~

~~G.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. This limitation shall also satisfy the requirements of 326 IAC 2-2 (PSD);~~

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

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

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

~~(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided 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.~~

~~G.3 Opacity [326 IAC 5-1]~~

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

~~(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.~~

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

~~G.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.~~

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

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

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

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

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

~~Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on April 30, 1996. The plan is included as 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
Asbestos Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251~~

~~The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers~~

~~and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

~~(e) Procedures for Asbestos Emission Control~~

~~The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.~~

~~(f) Demolition and Renovation~~

~~The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).~~

~~(g) Indiana Accredited Asbestos Inspector~~

~~The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.~~

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

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

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

~~A test protocol, except as provided elsewhere in this permit, shall be submitted to:~~

~~Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251~~

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

- ~~(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

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

~~Compliance Requirements [326 IAC 2-1.1-11]~~

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

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

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

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

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

~~Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251~~

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

~~The notification which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

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

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

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

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

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

~~(b) — The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.~~

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

~~C.15 — 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 prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.~~

~~(b) — These ERPs shall be submitted for approval to:~~

~~Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue~~

~~Indianapolis, Indiana 46204-2251~~

~~within ninety (90) days after the date of issuance of this permit.~~

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

- ~~(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.~~
- ~~(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.~~
- ~~(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.~~
- ~~(f) 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.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]~~

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

~~C.17 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]~~

- ~~(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.~~
- ~~(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - ~~(1) initial inspection and evaluation;~~
 - ~~(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or~~
 - ~~(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.~~~~
- ~~(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - ~~(1) monitoring results;~~
 - ~~(2) review of operation and maintenance procedures and records;~~
 - ~~(3) inspection of the control device, associated capture system, and the process.~~~~

- (d) ~~Failure to take reasonable response steps shall be considered a deviation from the permit.~~
- (e) ~~The Permittee shall maintain the following records:~~
 - (1) ~~monitoring data;~~
 - (2) ~~monitor performance data, if applicable; and~~
 - (3) ~~corrective actions taken.~~

~~C.18 Actions Related to Noncompliance Demonstrated by a Stack Test~~

- (a) ~~When the results of a stack test performed in conformance with Section C – Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.~~
- (b) ~~A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.~~
- (c) ~~IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.~~

~~The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

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

~~C.19 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]~~

- (a) ~~Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.~~
- (b) ~~Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.~~

~~C.20 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]~~

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

- (c) ~~Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.~~
- (d) ~~Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- (e) ~~Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.~~

Stratospheric Ozone Protection

~~C.21 Compliance with 40 CFR 82 and 326 IAC 22-1~~

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

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

SECTION 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, F151-23046-03222, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.**
- (b) **If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.**

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

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

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

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

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

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

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

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within 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 the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Emergency Provisions [326 IAC 2-8-12]

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

- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

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

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

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

- (f) **Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.**
- (g) **Operations may continue during an emergency only if the following conditions are met:**
 - (1) **If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.**
 - (2) **If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:**
 - (A) **The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and**
 - (B) **Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.**

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

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

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

- (a) **All terms and conditions of permits established prior to F151-23046-03222 and issued pursuant to permitting programs approved into the state implementation plan have been either:**
 - (1) **incorporated as originally stated,**
 - (2) **revised, or**
 - (3) **deleted.**
- (b) **All previous registrations and permits are superseded by this permit.**

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

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

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

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

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

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

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

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

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

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

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

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

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

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

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

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

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

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

and

**United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590**

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

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

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

- (b) **Emission Trades [326 IAC 2-8-15(c)]**
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

- (c) **Alternative Operating Scenarios [326 IAC 2-8-15(d)]**
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) **Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.**

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

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

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

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

- (a) **Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;**
- (b) **As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;**
- (c) **As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;**
- (d) **As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and**
- (e) **As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.**

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

- (a) **The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.**
- (b) **Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:**

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

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

- (a) The requirements to obtain a permit modification under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.25 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 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

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

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

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

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

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

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

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

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the 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 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) **All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.**

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

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

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

be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

The notification which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

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

demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

C.15 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 prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.**

(b) **These ERPs shall be submitted for approval 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 ninety (90) days after the date of issuance of this permit.

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

(c) **If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.**

(d) **These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.**

(e) **Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.**

(f) **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.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.17 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) **Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.**

(b) **The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or**

**exceedance (other than those caused by excused startup or shutdown conditions).
Corrective actions may include, but are not limited to, the following:**

- (1) initial inspection and evaluation;**
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or**
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.**
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:**
- (1) monitoring results;**
 - (2) review of operation and maintenance procedures and records; and/or**
 - (3) inspection of the control device, associated capture system, and the process.**
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.**
- (e) The Permittee shall maintain the following records:**
- (1) monitoring data;**
 - (2) monitor performance data, if applicable; and**
 - (3) corrective actions taken.**

**C.18 Actions Related to Noncompliance Demonstrated by a Stack Test
[326 IAC 2-8-4][326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.**
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.**
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.**

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.19 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance or ninety (90) days of initial start-up, whichever is later.

C.20 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

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

**Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251**
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. 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.21 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

...

- (3) IDEM has decided to move the information regarding the New Source Performance Standards from Section D.1 to Section E.1.

...

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

~~D.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]~~

~~Pursuant to 40 CFR 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR 60 Subpart A—General Provisions, which are incorporated by reference as 326 IAC 12-1, for the aggregate dryer and burner in accordance with the schedule in 40 CFR 60, Subpart A.~~

~~D.1.2 NSPS, Requirements [40 CFR Part 60, Subpart I] [326 IAC 12-1]~~

~~Pursuant to CFR Part 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart I, which are incorporated by reference as 326 IAC 12-1 for the aggregate dryer and burner as specified as follows:~~

~~§ 60.90—Applicability and designation of affected facility.~~

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

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

~~§ 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.~~

~~§ 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.~~

~~§ 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.~~

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

~~D.1.3—PSD Minor Limit [326 IAC 2-2]~~

~~(a) Particulate matter emissions from the aggregate dryer and mixer shall not exceed 0.790 pound PM per ton of hot mix asphalt produced; and~~

~~(b) The amount of hot mix asphalt produced in the drum mixer and dryer shall not exceed 483,813 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~

~~This limits total source wide PM emissions to less than 250 tons per year. Therefore, compliance with this limit will render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.~~

SECTION E.1

FACILITY OPERATION CONDITIONS

Emissions Unit Description: Hot-Mix Asphalt Plant

(a) One (1) aggregate batch mix dryer, identified as EU-05, constructed in 1990, with a maximum capacity of 250 tons per hour, equipped with one (1) natural gas fired dryer burner, constructed in 1998, with a maximum heat input of 91 million (MM) Btu per hour, using No. 2 distillate fuel oil, Refinery Blend fuel oil, Waste oil, and Diesel Engine oil as back-up fuels, processing slag in the aggregate mix; using one (1) baghouse (ID No. 9) for particulate matter control, exhausting to one (1) stack (ID No. 9);

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)]

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

Pursuant to CFR Part 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart I, which are incorporated by reference as 326 IAC 12-1 for the asphalt plant as specified as follows. Pursuant to 40 CFR 60.90(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.

§ 60.90 Applicability and designation of affected facility.

- (a) The affected facility to which the provisions of this subpart apply is each hot mix asphalt facility. For the purpose of this subpart, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.
- (b) Any facility under paragraph (a) of this section that commences construction or modification after June 11, 1973, is subject to the requirements of this subpart.

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

§ 60.91 Definitions.

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

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

[51 FR 12325, Apr. 10, 1986]

§ 60.92 Standard for particulate matter.

- (a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:
 - (1) Contain particulate matter in excess of 90 mg/dscm (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]**

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 22, 2009.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Revision No. 151-27828-03222. The staff recommends to the Commissioner that this FESOP Significant Revision be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Jason R. Krawczyk at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8427 or toll free at 1-800-451-6027 extension 2-8427.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations
Limited Emission Summary

Company Name: E & B Paving, Inc.
Source Address: CR 300 North, Angola, IN 46703
Permit Number: F151-27828-03222
Reviewer: Jason R. Krawczyk

| Process Description | PM | PM10 | PM2.5 | SO2 | NOx | VOC | CO | Hazardous Air Pollutants |
|---|-----------|------------------------------|-------|-----|-----|-----|----|--------------------------|
| Maximum Hourly Asphalt Production = | 250 | ton/hr | | | | | | |
| Annual Asphalt Production Limitation = | 248,910 | ton/yr | | | | | | |
| Blast Furnace Slag Usage = | 18,800 | ton/yr | | | | | | |
| Maximum Steel Slag Usage = | 249,910 | | | | | | | |
| Natural Gas Limitation = | 985 | MMCF/yr | | | | | | |
| No. 2 Fuel Oil Limitation = | 1,200.078 | gallyr, and | | | | | | |
| No. 4 Fuel Oil Limitation = | 0 | gallyr, and | | | | | | |
| Refinery Blend Fuel Oil Limitation = | 542,710 | gallyr, and | | | | | | |
| Propane Limitation = | 0 | gallyr, and | | | | | | |
| Butane Limitation = | 0 | gallyr, and | | | | | | |
| Used/Waste Oil Limitation = | 579,629 | gallyr, and | | | | | | |
| Diesel Engine Oil Limitation = | 159,819 | gallyr, and | | | | | | |
| | | | | | | | | 0.010 % lead |
| | | | | | | | | 0.200 % chlorine, |
| | | | | | | | | 0.50 % ash |
| PM Dryer/Mixer Limitation = | 0.893 | lb/ton of asphalt production | | | | | | |
| PM10 Dryer/Mixer Limitation = | 0.388 | lb/ton of asphalt production | | | | | | |
| PM2.5 Dryer/Mixer Limitation = | 0.388 | lb/ton of asphalt production | | | | | | |
| CO Dryer/Mixer Limitation = | 0.4 | lb/ton of asphalt production | | | | | | |
| VOC Dryer/Mixer Limitation = | 0.036 | lb/ton of asphalt production | | | | | | |
| Blast Furnace Slag SO2 Dryer/Mixer Limitation = | 0.540 | lb/ton of slag processed | | | | | | |
| Steel Slag SO2 Dryer/Mixer Maximum = | 0.0014 | lb/ton of slag processed | | | | | | |
| Cold Mix Asphalt VOC Usage Limitation = | 28.28 | tons/yr | | | | | | |

| Process Description | Limited/Controlled Potential Emissions (tons/year) | | | | | | | |
|--|--|-------|-------|-------|-------|-------|-------|---------------------------|
| | PM | PM10 | PM2.5 | SO2 | NOx | VOC | CO | Hazardous Air Pollutants |
| Ducted Emissions | | | | | | | | |
| Dryer Fuel Combustion (worst case) | 9.27 | 7.39 | 7.39 | 42.80 | 49.27 | 3.91 | 41.39 | 5.04 (hydrogen chloride) |
| Dryer/Mixer and Batch Tower (Process) | 110.23 | 45.43 | 47.98 | 10.86 | 14.81 | 4.44 | 49.38 | 1.32 (formaldehyde) |
| Dryer/Mixer Slag Processing (worst case) | 0 | 0 | 0 | 5.08 | 0 | 0 | 0 | 0 |
| Hot Oil Heater Fuel Combustion (worst case) | 0.06 | 0.10 | 0.10 | 2.22 | 0.63 | 0.02 | 0.37 | 0.01 (hexane) |
| Worst Case Emissions | 119.29 | 45.54 | 48.08 | 49.90 | 49.90 | 4.47 | 49.75 | 5.05 (hydrogen chloride) |
| Fugitive Emissions | | | | | | | | |
| Asphalt Load-Out, Site Filling, On-Site Yard | 0.07 | 0.07 | 0.07 | 0 | 0 | 1.50 | 0.15 | 0.02 (formaldehyde) |
| Material Storage Piles | 0.46 | 0.16 | 0.16 | 0 | 0 | 0 | 0 | 0 |
| Material Processing and Handling | 0.71 | 0.34 | 0.05 | 0 | 0 | 0 | 0 | 0 |
| Material Crushing, Screening, and Conveying | 3.60 | 1.28 | 1.28 | 0 | 0 | 0 | 0 | 0 |
| Unpaved and Paved Roads (worst case) | 9.86 | 2.51 | 0.25 | 0 | 0 | 0 | 0 | 0 |
| Cold Mix Asphalt Production | 0 | 0 | 0 | 0 | 0 | 28.28 | 0 | 2.55 (xylenes) |
| Gasoline Fuel Transfer and Dispensing | 0 | 0 | 0 | 0 | 0 | 0.00 | 0 | 0.00 (xylenes) |
| Volatile Organic Liquid Storage Vessels | 0 | 0 | 0 | 0 | 0 | negl | 0 | negl (xylenes) |
| Total Fugitive Emissions | 14.61 | 4.36 | 1.32 | 0 | 0 | 28.79 | 0.15 | 2.55 (xylenes) |
| Totals Limited/Controlled Emissions | 134.90 | 49.90 | 49.90 | 49.90 | 49.90 | 34.25 | 49.90 | 12.45 (hydrogen chloride) |

negl = negligible
 *Worst Case Emissions (tons/yr) = Worst Case Emissions from Dryer Fuel Combustion and Dryer/Mixer + Worst Case Emissions from Hot Oil Heater Fuel Combustion
 Worst Case Fuel Combustion is based on the fuel with the highest emissions for each specific pollutant.
 Worst Case Dryer/Mixer Slag Processing is based on the slag with the highest emissions for SO2.
 Fuel component percentages provided by the source.

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

Company Name: E & B Paving, Inc.
 Source Address: CR 300 North, Angola, IN 44703
 Permit Number: F451-27528-03222
 Reviewer: Jason R. Krawczyk

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

| Production and Fuel Limitations | 260 ton/yr | 0.60 % sulfur | 0.010 % lead |
|--|-------------------------------------|---------------|--------------|
| Maximum Hourly Asphalt Production = | 245,910 ton/yr | | |
| Annual Asphalt Production Limitation = | 665 MMCF/yr | | |
| Natural Gas Limitation = | 1,200,070 gal/yr, and | | |
| No. 2 Fuel Oil Limitation = | 0 gal/yr, and | | |
| No. 4 Fuel Oil Limitation = | 642,710 gal/yr, and | | |
| Refinery Blend Fuel Oil Limitation = | 0 gal/yr, and | | |
| Propane Limitation = | 0 gpi/100 ft ³ sulfur | | |
| Butane Limitation = | 0.22 gpi/100 ft ³ sulfur | | |
| Used/Waste Oil Limitation = | 1.00 % sulfur | | |
| Diesel Engine Oil Limitation = | 0.50 % ash | | |

| Criteria Pollutant | Emission Factor (units) | | | | | | | | | | Limited Potential to Emit (tons/yr) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | Natural Gas (lb/MMCF) | No. 2 Fuel Oil (lb/kgal) | No. 4 Fuel Oil (lb/kgal) | Refinery Blend Fuel Oil (lb/kgal) | Propane (lb/kgal) | Butane (lb/kgal) | Used/Waste Oil (lb/kgal) | Diesel Engine (lb/kgal) | Natural Gas (lb/kgal) | No. 2 Fuel Oil (lb/kgal) | No. 4 Fuel Oil (lb/kgal) | Refinery Blend Fuel Oil (lb/kgal) | Propane (lb/kgal) | Butane (lb/kgal) | Used/Waste Oil (lb/kgal) | Diesel Engine (lb/kgal) | Worse Case Fuel (lb/kgal) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hazardous Air Pollutants | | | | | | | | | | | | | | | | | | HCl | | | | | | | | | | | | | | | | | | Antimony | 5.25E-03 | 5.25E-03 | 13.2 | 5.47E-03 | 1.07E-01 | 1.30E-02 | 1.30E-02 | 1.05E-03 | 0.00E+00 | 0.00E+00 | 1.42E-03 | 0.00E+00 | 0.00E+00 | 3.63 | 3.63 | 1.4E-03 | Arsenic | 1.39E-03 | 1.39E-03 | 1.1E-01 | 1.39E-03 | 1.1E-01 | 1.1E-01 | 1.1E-01 | 9.85E-05 | 3.36E-04 | 0.00E+00 | 3.66E-04 | 0.00E+00 | 0.00E+00 | 3.19E-02 | 3.19E-02 | 2.8E-02 | Beryllium | 4.2E-04 | 4.2E-04 | 3.8E-05 | 4.2E-04 | 3.8E-05 | 3.8E-05 | 3.8E-05 | 5.9E-06 | 2.52E-04 | 0.00E+00 | 7.54E-06 | 0.00E+00 | 0.00E+00 | 2.70E-03 | 2.70E-03 | 2.7E-04 | Cadmium | 1.1E-03 | 1.1E-03 | 3.68E-04 | 1.1E-03 | 3.68E-04 | 3.68E-04 | 3.68E-04 | 6.4E-04 | 2.59E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 | 5.80E-03 | 5.80E-03 | 5.8E-03 | Chromium | 1.4E-03 | 1.4E-03 | 8.45E-04 | 1.4E-03 | 8.45E-04 | 8.45E-04 | 8.45E-04 | 4.1E-05 | 2.59E-04 | 0.00E+00 | 2.29E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.4E-03 | Cobalt | 8.4E-05 | 8.4E-05 | 6.02E-03 | 8.4E-05 | 6.02E-03 | 6.02E-03 | 6.02E-03 | 2.8E-04 | 7.56E-04 | 0.00E+00 | 4.10E-04 | 0.00E+00 | 0.00E+00 | 1.97E-02 | 1.97E-02 | 0.1E | Lead | 5.0E-04 | 5.0E-04 | 1.61E-03 | 5.0E-04 | 1.61E-03 | 1.61E-03 | 1.61E-03 | 1.9E-04 | 6.09E-04 | 0.00E+00 | 8.14E-04 | 0.00E+00 | 0.00E+00 | 3.19E-03 | 3.19E-03 | 2.6E-04 | Manganese | 2.9E-04 | 2.9E-04 | 1.19E-04 | 2.9E-04 | 1.19E-04 | 1.19E-04 | 1.19E-04 | 1.3E-04 | 2.69E-04 | 0.00E+00 | 3.07E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Mercury | 4.2E-04 | 4.2E-04 | 1.1E-02 | 4.2E-04 | 1.1E-02 | 1.1E-02 | 1.1E-02 | 1.3E-04 | 2.59E-04 | 0.00E+00 | 2.48E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 |
| HCl | | | | | | | | | | | | | | | | | | Antimony | 5.25E-03 | 5.25E-03 | 13.2 | 5.47E-03 | 1.07E-01 | 1.30E-02 | 1.30E-02 | 1.05E-03 | 0.00E+00 | 0.00E+00 | 1.42E-03 | 0.00E+00 | 0.00E+00 | 3.63 | 3.63 | 1.4E-03 | Arsenic | 1.39E-03 | 1.39E-03 | 1.1E-01 | 1.39E-03 | 1.1E-01 | 1.1E-01 | 1.1E-01 | 9.85E-05 | 3.36E-04 | 0.00E+00 | 3.66E-04 | 0.00E+00 | 0.00E+00 | 3.19E-02 | 3.19E-02 | 2.8E-02 | Beryllium | 4.2E-04 | 4.2E-04 | 3.8E-05 | 4.2E-04 | 3.8E-05 | 3.8E-05 | 3.8E-05 | 5.9E-06 | 2.52E-04 | 0.00E+00 | 7.54E-06 | 0.00E+00 | 0.00E+00 | 2.70E-03 | 2.70E-03 | 2.7E-04 | Cadmium | 1.1E-03 | 1.1E-03 | 3.68E-04 | 1.1E-03 | 3.68E-04 | 3.68E-04 | 3.68E-04 | 6.4E-04 | 2.59E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 | 5.80E-03 | 5.80E-03 | 5.8E-03 | Chromium | 1.4E-03 | 1.4E-03 | 8.45E-04 | 1.4E-03 | 8.45E-04 | 8.45E-04 | 8.45E-04 | 4.1E-05 | 2.59E-04 | 0.00E+00 | 2.29E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.4E-03 | Cobalt | 8.4E-05 | 8.4E-05 | 6.02E-03 | 8.4E-05 | 6.02E-03 | 6.02E-03 | 6.02E-03 | 2.8E-04 | 7.56E-04 | 0.00E+00 | 4.10E-04 | 0.00E+00 | 0.00E+00 | 1.97E-02 | 1.97E-02 | 0.1E | Lead | 5.0E-04 | 5.0E-04 | 1.61E-03 | 5.0E-04 | 1.61E-03 | 1.61E-03 | 1.61E-03 | 1.9E-04 | 6.09E-04 | 0.00E+00 | 8.14E-04 | 0.00E+00 | 0.00E+00 | 3.19E-03 | 3.19E-03 | 2.6E-04 | Manganese | 2.9E-04 | 2.9E-04 | 1.19E-04 | 2.9E-04 | 1.19E-04 | 1.19E-04 | 1.19E-04 | 1.3E-04 | 2.69E-04 | 0.00E+00 | 3.07E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Mercury | 4.2E-04 | 4.2E-04 | 1.1E-02 | 4.2E-04 | 1.1E-02 | 1.1E-02 | 1.1E-02 | 1.3E-04 | 2.59E-04 | 0.00E+00 | 2.48E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | |
| Antimony | 5.25E-03 | 5.25E-03 | 13.2 | 5.47E-03 | 1.07E-01 | 1.30E-02 | 1.30E-02 | 1.05E-03 | 0.00E+00 | 0.00E+00 | 1.42E-03 | 0.00E+00 | 0.00E+00 | 3.63 | 3.63 | 1.4E-03 | Arsenic | 1.39E-03 | 1.39E-03 | 1.1E-01 | 1.39E-03 | 1.1E-01 | 1.1E-01 | 1.1E-01 | 9.85E-05 | 3.36E-04 | 0.00E+00 | 3.66E-04 | 0.00E+00 | 0.00E+00 | 3.19E-02 | 3.19E-02 | 2.8E-02 | Beryllium | 4.2E-04 | 4.2E-04 | 3.8E-05 | 4.2E-04 | 3.8E-05 | 3.8E-05 | 3.8E-05 | 5.9E-06 | 2.52E-04 | 0.00E+00 | 7.54E-06 | 0.00E+00 | 0.00E+00 | 2.70E-03 | 2.70E-03 | 2.7E-04 | Cadmium | 1.1E-03 | 1.1E-03 | 3.68E-04 | 1.1E-03 | 3.68E-04 | 3.68E-04 | 3.68E-04 | 6.4E-04 | 2.59E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 | 5.80E-03 | 5.80E-03 | 5.8E-03 | Chromium | 1.4E-03 | 1.4E-03 | 8.45E-04 | 1.4E-03 | 8.45E-04 | 8.45E-04 | 8.45E-04 | 4.1E-05 | 2.59E-04 | 0.00E+00 | 2.29E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.4E-03 | Cobalt | 8.4E-05 | 8.4E-05 | 6.02E-03 | 8.4E-05 | 6.02E-03 | 6.02E-03 | 6.02E-03 | 2.8E-04 | 7.56E-04 | 0.00E+00 | 4.10E-04 | 0.00E+00 | 0.00E+00 | 1.97E-02 | 1.97E-02 | 0.1E | Lead | 5.0E-04 | 5.0E-04 | 1.61E-03 | 5.0E-04 | 1.61E-03 | 1.61E-03 | 1.61E-03 | 1.9E-04 | 6.09E-04 | 0.00E+00 | 8.14E-04 | 0.00E+00 | 0.00E+00 | 3.19E-03 | 3.19E-03 | 2.6E-04 | Manganese | 2.9E-04 | 2.9E-04 | 1.19E-04 | 2.9E-04 | 1.19E-04 | 1.19E-04 | 1.19E-04 | 1.3E-04 | 2.69E-04 | 0.00E+00 | 3.07E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Mercury | 4.2E-04 | 4.2E-04 | 1.1E-02 | 4.2E-04 | 1.1E-02 | 1.1E-02 | 1.1E-02 | 1.3E-04 | 2.59E-04 | 0.00E+00 | 2.48E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 1.39E-03 | 1.39E-03 | 1.1E-01 | 1.39E-03 | 1.1E-01 | 1.1E-01 | 1.1E-01 | 9.85E-05 | 3.36E-04 | 0.00E+00 | 3.66E-04 | 0.00E+00 | 0.00E+00 | 3.19E-02 | 3.19E-02 | 2.8E-02 | Beryllium | 4.2E-04 | 4.2E-04 | 3.8E-05 | 4.2E-04 | 3.8E-05 | 3.8E-05 | 3.8E-05 | 5.9E-06 | 2.52E-04 | 0.00E+00 | 7.54E-06 | 0.00E+00 | 0.00E+00 | 2.70E-03 | 2.70E-03 | 2.7E-04 | Cadmium | 1.1E-03 | 1.1E-03 | 3.68E-04 | 1.1E-03 | 3.68E-04 | 3.68E-04 | 3.68E-04 | 6.4E-04 | 2.59E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 | 5.80E-03 | 5.80E-03 | 5.8E-03 | Chromium | 1.4E-03 | 1.4E-03 | 8.45E-04 | 1.4E-03 | 8.45E-04 | 8.45E-04 | 8.45E-04 | 4.1E-05 | 2.59E-04 | 0.00E+00 | 2.29E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.4E-03 | Cobalt | 8.4E-05 | 8.4E-05 | 6.02E-03 | 8.4E-05 | 6.02E-03 | 6.02E-03 | 6.02E-03 | 2.8E-04 | 7.56E-04 | 0.00E+00 | 4.10E-04 | 0.00E+00 | 0.00E+00 | 1.97E-02 | 1.97E-02 | 0.1E | Lead | 5.0E-04 | 5.0E-04 | 1.61E-03 | 5.0E-04 | 1.61E-03 | 1.61E-03 | 1.61E-03 | 1.9E-04 | 6.09E-04 | 0.00E+00 | 8.14E-04 | 0.00E+00 | 0.00E+00 | 3.19E-03 | 3.19E-03 | 2.6E-04 | Manganese | 2.9E-04 | 2.9E-04 | 1.19E-04 | 2.9E-04 | 1.19E-04 | 1.19E-04 | 1.19E-04 | 1.3E-04 | 2.69E-04 | 0.00E+00 | 3.07E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Mercury | 4.2E-04 | 4.2E-04 | 1.1E-02 | 4.2E-04 | 1.1E-02 | 1.1E-02 | 1.1E-02 | 1.3E-04 | 2.59E-04 | 0.00E+00 | 2.48E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Beryllium | 4.2E-04 | 4.2E-04 | 3.8E-05 | 4.2E-04 | 3.8E-05 | 3.8E-05 | 3.8E-05 | 5.9E-06 | 2.52E-04 | 0.00E+00 | 7.54E-06 | 0.00E+00 | 0.00E+00 | 2.70E-03 | 2.70E-03 | 2.7E-04 | Cadmium | 1.1E-03 | 1.1E-03 | 3.68E-04 | 1.1E-03 | 3.68E-04 | 3.68E-04 | 3.68E-04 | 6.4E-04 | 2.59E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 | 5.80E-03 | 5.80E-03 | 5.8E-03 | Chromium | 1.4E-03 | 1.4E-03 | 8.45E-04 | 1.4E-03 | 8.45E-04 | 8.45E-04 | 8.45E-04 | 4.1E-05 | 2.59E-04 | 0.00E+00 | 2.29E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.4E-03 | Cobalt | 8.4E-05 | 8.4E-05 | 6.02E-03 | 8.4E-05 | 6.02E-03 | 6.02E-03 | 6.02E-03 | 2.8E-04 | 7.56E-04 | 0.00E+00 | 4.10E-04 | 0.00E+00 | 0.00E+00 | 1.97E-02 | 1.97E-02 | 0.1E | Lead | 5.0E-04 | 5.0E-04 | 1.61E-03 | 5.0E-04 | 1.61E-03 | 1.61E-03 | 1.61E-03 | 1.9E-04 | 6.09E-04 | 0.00E+00 | 8.14E-04 | 0.00E+00 | 0.00E+00 | 3.19E-03 | 3.19E-03 | 2.6E-04 | Manganese | 2.9E-04 | 2.9E-04 | 1.19E-04 | 2.9E-04 | 1.19E-04 | 1.19E-04 | 1.19E-04 | 1.3E-04 | 2.69E-04 | 0.00E+00 | 3.07E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Mercury | 4.2E-04 | 4.2E-04 | 1.1E-02 | 4.2E-04 | 1.1E-02 | 1.1E-02 | 1.1E-02 | 1.3E-04 | 2.59E-04 | 0.00E+00 | 2.48E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | 1.1E-03 | 1.1E-03 | 3.68E-04 | 1.1E-03 | 3.68E-04 | 3.68E-04 | 3.68E-04 | 6.4E-04 | 2.59E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 | 5.80E-03 | 5.80E-03 | 5.8E-03 | Chromium | 1.4E-03 | 1.4E-03 | 8.45E-04 | 1.4E-03 | 8.45E-04 | 8.45E-04 | 8.45E-04 | 4.1E-05 | 2.59E-04 | 0.00E+00 | 2.29E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.4E-03 | Cobalt | 8.4E-05 | 8.4E-05 | 6.02E-03 | 8.4E-05 | 6.02E-03 | 6.02E-03 | 6.02E-03 | 2.8E-04 | 7.56E-04 | 0.00E+00 | 4.10E-04 | 0.00E+00 | 0.00E+00 | 1.97E-02 | 1.97E-02 | 0.1E | Lead | 5.0E-04 | 5.0E-04 | 1.61E-03 | 5.0E-04 | 1.61E-03 | 1.61E-03 | 1.61E-03 | 1.9E-04 | 6.09E-04 | 0.00E+00 | 8.14E-04 | 0.00E+00 | 0.00E+00 | 3.19E-03 | 3.19E-03 | 2.6E-04 | Manganese | 2.9E-04 | 2.9E-04 | 1.19E-04 | 2.9E-04 | 1.19E-04 | 1.19E-04 | 1.19E-04 | 1.3E-04 | 2.69E-04 | 0.00E+00 | 3.07E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Mercury | 4.2E-04 | 4.2E-04 | 1.1E-02 | 4.2E-04 | 1.1E-02 | 1.1E-02 | 1.1E-02 | 1.3E-04 | 2.59E-04 | 0.00E+00 | 2.48E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chromium | 1.4E-03 | 1.4E-03 | 8.45E-04 | 1.4E-03 | 8.45E-04 | 8.45E-04 | 8.45E-04 | 4.1E-05 | 2.59E-04 | 0.00E+00 | 2.29E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.4E-03 | Cobalt | 8.4E-05 | 8.4E-05 | 6.02E-03 | 8.4E-05 | 6.02E-03 | 6.02E-03 | 6.02E-03 | 2.8E-04 | 7.56E-04 | 0.00E+00 | 4.10E-04 | 0.00E+00 | 0.00E+00 | 1.97E-02 | 1.97E-02 | 0.1E | Lead | 5.0E-04 | 5.0E-04 | 1.61E-03 | 5.0E-04 | 1.61E-03 | 1.61E-03 | 1.61E-03 | 1.9E-04 | 6.09E-04 | 0.00E+00 | 8.14E-04 | 0.00E+00 | 0.00E+00 | 3.19E-03 | 3.19E-03 | 2.6E-04 | Manganese | 2.9E-04 | 2.9E-04 | 1.19E-04 | 2.9E-04 | 1.19E-04 | 1.19E-04 | 1.19E-04 | 1.3E-04 | 2.69E-04 | 0.00E+00 | 3.07E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Mercury | 4.2E-04 | 4.2E-04 | 1.1E-02 | 4.2E-04 | 1.1E-02 | 1.1E-02 | 1.1E-02 | 1.3E-04 | 2.59E-04 | 0.00E+00 | 2.48E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cobalt | 8.4E-05 | 8.4E-05 | 6.02E-03 | 8.4E-05 | 6.02E-03 | 6.02E-03 | 6.02E-03 | 2.8E-04 | 7.56E-04 | 0.00E+00 | 4.10E-04 | 0.00E+00 | 0.00E+00 | 1.97E-02 | 1.97E-02 | 0.1E | Lead | 5.0E-04 | 5.0E-04 | 1.61E-03 | 5.0E-04 | 1.61E-03 | 1.61E-03 | 1.61E-03 | 1.9E-04 | 6.09E-04 | 0.00E+00 | 8.14E-04 | 0.00E+00 | 0.00E+00 | 3.19E-03 | 3.19E-03 | 2.6E-04 | Manganese | 2.9E-04 | 2.9E-04 | 1.19E-04 | 2.9E-04 | 1.19E-04 | 1.19E-04 | 1.19E-04 | 1.3E-04 | 2.69E-04 | 0.00E+00 | 3.07E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Mercury | 4.2E-04 | 4.2E-04 | 1.1E-02 | 4.2E-04 | 1.1E-02 | 1.1E-02 | 1.1E-02 | 1.3E-04 | 2.59E-04 | 0.00E+00 | 2.48E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | 5.0E-04 | 5.0E-04 | 1.61E-03 | 5.0E-04 | 1.61E-03 | 1.61E-03 | 1.61E-03 | 1.9E-04 | 6.09E-04 | 0.00E+00 | 8.14E-04 | 0.00E+00 | 0.00E+00 | 3.19E-03 | 3.19E-03 | 2.6E-04 | Manganese | 2.9E-04 | 2.9E-04 | 1.19E-04 | 2.9E-04 | 1.19E-04 | 1.19E-04 | 1.19E-04 | 1.3E-04 | 2.69E-04 | 0.00E+00 | 3.07E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Mercury | 4.2E-04 | 4.2E-04 | 1.1E-02 | 4.2E-04 | 1.1E-02 | 1.1E-02 | 1.1E-02 | 1.3E-04 | 2.59E-04 | 0.00E+00 | 2.48E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | 2.9E-04 | 2.9E-04 | 1.19E-04 | 2.9E-04 | 1.19E-04 | 1.19E-04 | 1.19E-04 | 1.3E-04 | 2.69E-04 | 0.00E+00 | 3.07E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Mercury | 4.2E-04 | 4.2E-04 | 1.1E-02 | 4.2E-04 | 1.1E-02 | 1.1E-02 | 1.1E-02 | 1.3E-04 | 2.59E-04 | 0.00E+00 | 2.48E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury | 4.2E-04 | 4.2E-04 | 1.1E-02 | 4.2E-04 | 1.1E-02 | 1.1E-02 | 1.1E-02 | 1.3E-04 | 2.59E-04 | 0.00E+00 | 2.48E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.02 | Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nickel | 8.4E-04 | 8.4E-04 | 6.43E-04 | 8.4E-04 | 6.43E-04 | 6.43E-04 | 6.43E-04 | 1.3E-05 | 1.26E-03 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 2.32E-07 | 2.32E-07 | 5.9E-04 | Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silver | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vanadium | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | 2.4E-05 | 2.4E-05 | 1.8E-04 | 2.4E-05 | 1.8E-04 | 1.8E-04 | 1.8E-04 | 5.47E-03 | 1.07E-01 | 0.00E+00 | 5.31E-05 | 0.00E+00 | 0.00E+00 | 6.39E-04 | 6.39E-04 | 6.4E-04 | Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | 2.1E-03 | 2.1E-03 | 2.14E-04 | 2.1E-03 | 2.14E-04 | 2.14E-04 | 2.14E-04 | 1.0E-03 | 3.07E-02 | 0.00E+00 | 1.73E-05 | 0.00E+00 | 0.00E+00 | 1.32E-02 | 1.32E-02 | 1.7E-05 | Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorobenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ethylbenzene | 1.2E-03 | 1.2E-03 | 6.39E-05 | 1.2E-03 | 6.39E-05 | 6.39E-05 | 6.39E-05 | 6.9E-04 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.7E-05 | Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Formaldehyde | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heptane | 1.8E+00 | 1.8E+00 | 6.10E-02 | 1.8E+00 | 6.10E-02 | 6.10E-02 | 6.10E-02 | 0.89 | 3.07E-02 | 0.00E+00 | 0.95E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenol | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Toluene | 3.4E-03 | 3.4E-03 | 6.20E-03 | 3.4E-03 | 6.20E-03 | 6.20E-03 | 6.20E-03 | 6.73E-02 | 1.7E-03 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 6.06E-04 | 6.06E-04 | 7.0E-04 | Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total PAH Haps | nael | nael | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | nael | 2.35E-02 | 0.00E+00 | 3.07E-04 | 0.00E+00 | 0.00E+00 | 1.13E-02 | 1.13E-02 | 1.1E-02 | Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polycyclic Organic Matter | 3.30E-03 | 3.30E-03 | 1.09E-04 | 3.30E-03 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Xylenes | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Xylenes | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 1.09E-04 | 3.89E-02 | 9.93 | 0.04 | 0.04 | 0.00E+00 | 0.00E+00 | 3.18E-03 | 3.18E-03 | 3.2E-03 | Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total HAPs | | | | | | | | | 0.93 | 0.04 | 0.04 | 0 | 0 | 4.06 | 4.06 | 5.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Methodology: Limited Potential to Emit (tons/yr) = (Natural Gas Limitation (MMCF/yr)) * (Emission Factor (lb/MMCF)) * (ton/2000 lbs)
 All Other Fuels: Limited Potential to Emit (tons/yr) = (Fuel Limitation (gal/yr)) * (Emission Factor (lb/gal)) * (ton/2000 lbs)
 Sources of AP-42 Emission Factors for fuel combustion:
 Natural Gas: AP-42 Chapter 1.4 (dated 7/89), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4
 No. 2 Fuel Oil: AP-42 Chapter 1.3 (dated 9/89), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-6, 1.3-9, 1.3-10, and 1.3-11
 Diesel Engine Oil: AP-42 Chapter 3.3 (dated 10/96), Tables 3.3-1, 3.3-2, 3.3-3, 3.3-4, 3.3-5, 3.3-6, 3.3-7, 3.3-8, 3.3-9, 3.3-10, and 3.3-11
 * Emission Factors for Refinery Blend Fuel Oil: AP-42 Chapter 1.1.1. Therefore, assumes Refinery Blend Fuel Oil emission factors equal to No. 6 Fuel Oil emission factors.

Abbreviations:
 HCl = Hydrogen Chloride
 PM10 = Particulate Matter
 PAH = Polycyclic Aromatic Hydrocarbon
 VOC = Volatile Organic Compounds
 SO2 = Sulfur Dioxide
 NOx = Nitrogen Oxides
 HAP = Hazardous Air Pollutant
 CO = Carbon Monoxide

**Appendix A.2: Emissions Calculations
Dryer/Mixer and Batch Tower
Limited Process Emissions**

Company Name: E & B Paving, Inc.
Source Address: CR 300 North, Angola, IN 46703
Permit Number: F151-27828-03222
Reviewer: Jason R. Krawczyk

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

| | | |
|--|---------|------------------------------|
| Maximum Hourly Asphalt Production = | 250 | ton/hr |
| Annual Asphalt Production Limitation = | 246,910 | ton/yr |
| PM Dryer/Mixer Limitation = | 0.893 | lb/ton of asphalt production |
| PM10 Dryer/Mixer Limitation = | 0.368 | lb/ton of asphalt production |
| PM2.5 Dryer/Mixer Limitation = | 0.389 | lb/ton of asphalt production |
| CO Dryer/Mixer Limitation = | 0.400 | lb/ton of asphalt production |
| VOC Dryer/Mixer Limitation = | 0.036 | lb/ton of asphalt production |

| Criteria Pollutant | Emission Factor or Limitation (lb/ton) | | | Limited/Controlled Potential to Emit (tons/yr) | | | |
|--------------------------------|---|----------------|-----------|---|----------------|-----------|----------------|
| | Batch-Mix Plant (dryer, hot screens, and mixer) | | | Batch-Mix Plant (dryer, hot screens, and mixer) | | | |
| | Natural Gas | No. 2 Fuel Oil | Waste Oil | Natural Gas | No. 2 Fuel Oil | Waste Oil | Worse Case PTE |
| PM | 0.893 | 0.893 | 0.893 | 110.2 | 110.2 | 110.2 | 110.2 |
| PM10 | 0.368 | 0.368 | 0.368 | 45.4 | 45.4 | 45.4 | 45.4 |
| PM2.5 | 0.389 | 0.389 | 0.389 | 48.0 | 48.0 | 48.0 | 48.0 |
| SO2* | 0.0046 | 0.088 | 0.088 | 0.6 | 10.9 | 10.9 | 10.9 |
| NOx* | 0.025 | 0.12 | 0.12 | 3.1 | 14.8 | 14.8 | 14.8 |
| VOC | 0.036 | 0.036 | 0.036 | 4.4 | 4.4 | 4.4 | 4.4 |
| CO** | 0.400 | 0.400 | 0.400 | 49.4 | 49.4 | 49.4 | 49.4 |
| Hazardous Air Pollutant | | | | | | | |
| HCl | | | 2.10E-04 | | | 0.03 | 0.03 |
| Antimony | 1.80E-07 | 1.80E-07 | 1.80E-07 | 2.22E-05 | 2.22E-05 | 2.22E-05 | 2.22E-05 |
| Arsenic | 5.60E-07 | 5.60E-07 | 5.60E-07 | 6.91E-05 | 6.91E-05 | 6.91E-05 | 6.91E-05 |
| Beryllium | negl | negl | negl | negl | negl | negl | 0.00E+00 |
| Cadmium | 4.10E-07 | 4.10E-07 | 4.10E-07 | 5.06E-05 | 5.06E-05 | 5.06E-05 | 5.06E-05 |
| Chromium | 5.50E-06 | 5.50E-06 | 5.50E-06 | 6.79E-04 | 6.79E-04 | 6.79E-04 | 6.79E-04 |
| Cobalt | 2.60E-08 | 2.60E-08 | 2.60E-08 | 3.21E-06 | 3.21E-06 | 3.21E-06 | 3.21E-06 |
| Lead | 6.20E-07 | 1.50E-05 | 1.50E-05 | 7.65E-05 | 1.85E-03 | 1.85E-03 | 1.85E-03 |
| Manganese | 7.70E-06 | 7.70E-06 | 7.70E-06 | 9.51E-04 | 9.51E-04 | 9.51E-04 | 9.51E-04 |
| Mercury | 2.40E-07 | 2.60E-06 | 2.60E-06 | 2.96E-05 | 3.21E-04 | 3.21E-04 | 3.21E-04 |
| Nickel | 6.30E-05 | 6.30E-05 | 6.30E-05 | 7.78E-03 | 7.78E-03 | 7.78E-03 | 7.78E-03 |
| Selenium | 3.50E-07 | 3.50E-07 | 3.50E-07 | 4.32E-05 | 4.32E-05 | 4.32E-05 | 4.32E-05 |
| 2,2,4 Trimethylpentane | 4.00E-05 | 4.00E-05 | 4.00E-05 | 4.94E-03 | 4.94E-03 | 4.94E-03 | 4.94E-03 |
| Acetaldehyde | | | 1.30E-03 | | | 0.16 | 0.16 |
| Acrolein | | | 2.60E-05 | | | 3.21E-03 | 3.21E-03 |
| Benzene | 3.90E-04 | 3.90E-04 | 3.90E-04 | 0.05 | 0.05 | 0.05 | 0.05 |
| Ethylbenzene | 2.40E-04 | 2.40E-04 | 2.40E-04 | 0.03 | 0.03 | 0.03 | 0.03 |
| Formaldehyde | 3.10E-03 | 3.10E-03 | 3.10E-03 | 0.38 | 0.38 | 0.38 | 0.38 |
| Hexane | 9.20E-04 | 9.20E-04 | 9.20E-04 | 0.11 | 0.11 | 0.11 | 0.11 |
| Methyl chloroform | 4.80E-05 | 4.80E-05 | 4.80E-05 | 0.01 | 0.01 | 0.01 | 0.01 |
| MEK | | | 2.00E-05 | | | 0.00 | 0.00 |
| Propionaldehyde | | | 1.30E-04 | | | 0.02 | 0.02 |
| Quinone | | | 1.60E-04 | | | 0.02 | 0.02 |
| Toluene | 1.50E-04 | 2.90E-03 | 2.90E-03 | 0.02 | 0.36 | 0.36 | 0.36 |
| Total PAH Haps | 1.90E-04 | 8.80E-04 | 8.80E-04 | 0.02 | 0.11 | 0.11 | 0.11 |
| Xylene | 2.00E-04 | 2.00E-04 | 2.00E-04 | 0.02 | 0.02 | 0.02 | 0.02 |

Total HAPs 1.32

Worst Single HAP 0.38271112 (formaldehyde)

Methodology

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

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-1, 11.1-2, 11.1-5, 11.1-6, 11.1-19, and 11.1-11

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.

* SO2 and NOx 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 batch mix dryer fired with natural gas, No. 6 fuel oil, and No. 2 fuel oil to develop single CO emission factor.

Abbreviations

VOC - Volatile Organic Compounds

HAP = Hazardous Air Pollutant

HCl = Hydrogen Chloride

PAH = Polyaromatic Hydrocarbon

SO2 = Sulfur Dioxide

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

Company Name: E & B Paving, Inc.
Source Address: CR 300 North, Angola, IN 46703
Permit Number: F151-27828-03222
Reviewer: Jason R. Krawczyk

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

Blast Furnace Slag:

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

| | Emission Factor or Limitation (lb/ton)* | Limited Potential to Emit (tons/yr) |
|--------------------|---|-------------------------------------|
| Criteria Pollutant | Slag Processing | Slag Processing |
| SO2 | 0.540 | 5.08 |

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 slag containing 1.10% sulfur content.
Limited Potential to Emit SO2 from Blast Furnace Slag (tons/yr) = (Blast Furnace Slag Usage Limitation (ton/yr)) * [Limited Emission Factor (lb/ton)] * [ton/2000 lbs]

Steel Slag:

Maximum Steel Slag Usage = ton/yr
Maximum SO2 Emissions from Slag = lb/ton of slag processed % sulfur

| | Emission Factor (lb/ton)** | Potential to Emit (tons/yr) |
|--------------------|----------------------------|-----------------------------|
| Criteria Pollutant | Slag Processing | Slag Processing |
| SO2 | 0.0014 | 0.17 |

Note:

Maximum steel slag usage has been set equal to annual asphalt plant limitation as a worst case scenario.

Methodology:

** Testing results for steel slag, obtained June 2009 from similar operations at an 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. A safety multiplier of two (2) was used as a worse case emissions scenario.
Potential to Emit SO2 from Steel Slag (tons/yr) = Maximum Steel Slag Usage (ton/yr) * [Emission Factor (lb/ton)] * [ton/2000 lbs]

Abbreviations

SO2 = Sulfur Dioxide

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

Company Name: E & B Paving, Inc.
 Source Location: CR 300 North, Angola, IN 46703
 Permit Number: F151-27828-03222
 Reviewer: Jason R. Krawczyk

Maximum Hot Oil Heater Fuel Input Rate = 1.00 MMBtu/hr
 Natural Gas Usage = 9 MMCF/yr
 No. 2 Fuel Oil Usage = 62,571 gal/yr, and 0.50 % sulfur

Unlimited/Uncontrolled Emissions

| Criteria Pollutant | Emission Factor (units) | | Unlimited/Uncontrolled Potential to Emit (tons/yr) | | Worse Case Fuel (tons/yr) |
|--------------------------------|-------------------------|--------------------------|--|--------------------------|---------------------------|
| | Hot Oil Heater | | Hot Oil Heater | | |
| | Natural Gas (lb/MMCF) | No. 2 Fuel Oil (lb/kgal) | Natural Gas (tons/yr) | No. 2 Fuel Oil (tons/yr) | |
| PM | 1.9 | 2.0 | 0.008 | 0.063 | 0.06 |
| PM10/PM2.5 | 7.6 | 3.3 | 0.033 | 0.103 | 0.10 |
| SO2 | 0.6 | 71.0 | 0.003 | 2.221 | 2.22 |
| NOx | 100 | 20.0 | 0.438 | 0.626 | 0.63 |
| VOC | 5.5 | 0.20 | 0.024 | 0.006 | 0.02 |
| CO | 84 | 5.0 | 0.368 | 0.156 | 0.37 |
| Hazardous Air Pollutant | | | | | |
| Arsenic | 2.0E-04 | 5.6E-04 | 8.8E-07 | 1.75E-05 | 1.8E-05 |
| Beryllium | 1.2E-05 | 4.2E-04 | 5.3E-08 | 1.31E-05 | 1.3E-05 |
| Cadmium | 1.1E-03 | 4.2E-04 | 4.8E-06 | 1.31E-05 | 1.3E-05 |
| Chromium | 1.4E-03 | 4.2E-04 | 6.1E-06 | 1.31E-05 | 1.3E-05 |
| Cobalt | 8.4E-05 | | 3.7E-07 | | 3.7E-07 |
| Lead | 5.0E-04 | 1.3E-03 | 2.2E-06 | 3.94E-05 | 3.9E-05 |
| Manganese | 3.8E-04 | 8.4E-04 | 1.7E-06 | 2.63E-05 | 2.6E-05 |
| Mercury | 2.6E-04 | 4.2E-04 | 1.1E-06 | 1.31E-05 | 1.3E-05 |
| Nickel | 2.1E-03 | 4.2E-04 | 9.2E-06 | 1.31E-05 | 1.3E-05 |
| Selenium | 2.4E-05 | 2.1E-03 | 1.1E-07 | 6.57E-05 | 6.6E-05 |
| Benzene | 2.1E-03 | | 9.2E-06 | | 9.2E-06 |
| Dichlorobenzene | 1.2E-03 | | 5.3E-06 | | 5.3E-06 |
| Ethylbenzene | | | | | 0 |
| Formaldehyde | 7.5E-02 | 6.10E-02 | 3.3E-04 | 1.91E-03 | 0.002 |
| Hexane | 1.8E+00 | | 0.01 | | 0.008 |
| Phenol | | | | | 0 |
| Toluene | 3.4E-03 | | 1.5E-05 | | 1.5E-05 |
| Total PAH Haps | negl | | negl | | 0 |
| Polycyclic Organic Matter | | 3.30E-03 | | 1.03E-04 | 1.0E-04 |
| Total HAPs = | | | 8.3E-03 | 2.2E-03 | 0.010 |

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 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11

Abbreviations

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

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

Company Name: E & B Paving, Inc.
 Source Address: CR 300 North, Angola, IN 46703
 Permit Number: F151-27828-03222
 Reviewer: Jason R. Krawczyk

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

| | | |
|--|---------|---------|
| Asphalt Temperature, T = | 325 | F |
| Asphalt Volatility Factor, V = | -0.5 | |
| Annual Asphalt Production Limitation = | 246,910 | tons/yr |

| Pollutant | Emission Factor (lb/ton asphalt) | | | Limited Potential to Emit (tons/yr) | | | |
|------------|----------------------------------|--------------|--------------|-------------------------------------|--------------|--------------|-------|
| | Load-Out | Silo Filling | On-Site Yard | Load-Out | Silo Filling | On-Site Yard | Total |
| Total PM* | 5.2E-04 | 5.9E-04 | NA | 0.06 | 0.07 | NA | 0.14 |
| Organic PM | 3.4E-04 | 2.5E-04 | NA | 0.04 | 0.031 | NA | 0.07 |
| TOC | 0.004 | 0.012 | 0.001 | 0.51 | 1.50 | 0.136 | 2.2 |
| CO | 0.001 | 0.001 | 3.5E-04 | 0.17 | 0.146 | 0.043 | 0.36 |

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

| | | | | |
|------------------|---------|---------|---------|---------|
| PM/HAPs | 0.003 | 0.004 | 0 | 0.007 |
| VOC/HAPs | 0.008 | 0.019 | 0.002 | 0.029 |
| non-VOC/HAPs | 4.0E-05 | 4.1E-06 | 1.0E-05 | 5.4E-05 |
| non-VOC/non-HAPs | 0.04 | 0.02 | 0.01 | 0.07 |

| | | | | |
|------------------|------|------|-------|----------------|
| Total VOCs | 0.48 | 1.50 | 0.1 | 2.1 |
| Total HAPs | 0.01 | 0.02 | 0.002 | 0.04 |
| Worst Single HAP | | | | 0.011 |
| | | | | (formaldehyde) |

Methodology

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Abbreviations

TOC = Total Organic Compounds

CO = Carbon Monoxide

PM = Particulate

Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

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

Company Name: E & B Paving, Inc.
 Source Address: CR 300 North, Angola, IN 46703
 Permit Number: F151-27828-03222
 Reviewer: Jason R. Krawczyk

Organic Particulate-Based Compounds (Table 11.1-15)

| Pollutant | CASRN | Category | HAP Type | Source | Speciation Profiles | | Limited Potential to Emit (tons/yr) | | | |
|---------------------------------|----------|----------|----------|------------|--|---|-------------------------------------|--------------|-------------|---------|
| | | | | | Load-out and Onsite Yard (% by weight of Total Organic PM) | Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM) | Load-out | Silo Filling | Onsite Yard | Total |
| PAH HAPs | | | | | | | | | | |
| Acenaphthene | 83-32-9 | PM/HAP | POM | Organic PM | 0.26% | 0.47% | 1.1E-04 | 1.5E-04 | NA | 2.6E-04 |
| Acenaphthylene | 208-96-8 | PM/HAP | POM | Organic PM | 0.028% | 0.014% | 1.2E-05 | 4.4E-06 | NA | 1.6E-05 |
| Anthracene | 120-12-7 | PM/HAP | POM | Organic PM | 0.07% | 0.13% | 2.9E-05 | 4.1E-05 | NA | 7.0E-05 |
| Benzo(a)anthracene | 56-55-3 | PM/HAP | POM | Organic PM | 0.019% | 0.056% | 8.0E-06 | 1.8E-05 | NA | 2.6E-05 |
| Benzo(b)fluoranthene | 205-99-2 | PM/HAP | POM | Organic PM | 0.0076% | 0 | 3.2E-06 | 0 | NA | 3.2E-06 |
| Benzo(k)fluoranthene | 207-08-9 | PM/HAP | POM | Organic PM | 0.0022% | 0 | 9.3E-07 | 0 | NA | 9.3E-07 |
| Benzo(g,h,i)perylene | 197-24-2 | PM/HAP | POM | Organic PM | 0.0019% | 0 | 8.0E-07 | 0 | NA | 8.0E-07 |
| Benzo(a)pyrene | 50-32-8 | PM/HAP | POM | Organic PM | 0.0023% | 0 | 9.7E-07 | 0 | NA | 9.7E-07 |
| Benzo(e)pyrene | 192-97-2 | PM/HAP | POM | Organic PM | 0.0078% | 0.0095% | 3.3E-06 | 3.0E-06 | NA | 6.3E-06 |
| Chrysene | 218-01-9 | PM/HAP | POM | Organic PM | 0.103% | 0.21% | 4.3E-05 | 6.6E-05 | NA | 1.1E-04 |
| Dibenz(a,h)anthracene | 53-70-3 | PM/HAP | POM | Organic PM | 0.00037% | 0 | 1.6E-07 | 0 | NA | 1.6E-07 |
| Fluoranthene | 206-44-0 | PM/HAP | POM | Organic PM | 0.05% | 0.15% | 2.1E-06 | 4.7E-05 | NA | 6.8E-05 |
| Fluorene | 86-73-7 | PM/HAP | POM | Organic PM | 0.77% | 1.01% | 3.2E-04 | 3.2E-04 | NA | 6.4E-04 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | PM/HAP | POM | Organic PM | 0.00047% | 0 | 2.0E-07 | 0 | NA | 2.0E-07 |
| 2-Methylnaphthalene | 91-57-6 | PM/HAP | POM | Organic PM | 2.38% | 5.27% | 1.0E-03 | 1.7E-03 | NA | 0.003 |
| Naphthalene | 91-20-3 | PM/HAP | POM | Organic PM | 1.25% | 1.82% | 5.3E-04 | 5.7E-04 | NA | 1.1E-03 |
| Perylene | 198-85-0 | PM/HAP | POM | Organic PM | 0.022% | 0.03% | 9.3E-06 | 9.4E-06 | NA | 1.9E-05 |
| Phenanthrene | 85-01-8 | PM/HAP | POM | Organic PM | 0.81% | 1.80% | 3.4E-04 | 5.6E-04 | NA | 9.1E-04 |
| Pyrene | 129-00-0 | PM/HAP | POM | Organic PM | 0.15% | 0.44% | 6.3E-05 | 1.4E-04 | NA | 2.0E-04 |
| Total PAH HAPs | | | | | | | 0.002 | 0.004 | NA | 0.006 |
| Other semi-volatile HAPs | | | | | | | | | | |
| Phenol | | PM/HAP | --- | Organic PM | 1.18% | 0 | 5.0E-04 | 0 | 0 | 5.0E-04 |

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

Methodology

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

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

Abbreviations

- PM = Particulate Matter
- HAP = Hazardous Air Pollutant
- POM = Polycyclic Organic Matter

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

Organic Volatile-Based Compounds (Table 11.1-16)

| Pollutant | CASRN | Category | HAP Type | Source | Speciation Profile | | Limited Potential to Emit (tons/yr) | | | |
|-----------------------------|-----------|-----------------|----------|--------|---|--|-------------------------------------|--------------|-------------|---------|
| | | | | | Load-out and Onsite Yard (% by weight of TOC) | Silo Filling and Asphalt Storage Tank (% by weight of TOC) | Load-out | Silo Filling | Onsite Yard | Total |
| VOC | | VOC | | TOC | 94% | 100% | 0.48 | 1.50 | 0.13 | 2.11 |
| non-VOC/non-HAPS | | | | | | | | | | |
| Methane | 74-82-8 | non-VOC/non-HAP | | TOC | 6.50% | 0.26% | 3.3E-02 | 3.9E-03 | 8.8E-03 | 0.046 |
| Acetone | 67-64-1 | non-VOC/non-HAP | | TOC | 0.046% | 0.055% | 2.4E-04 | 8.3E-04 | 6.2E-05 | 0.001 |
| Ethylene | 74-85-1 | non-VOC/non-HAP | | TOC | 0.71% | 1.10% | 3.6E-03 | 1.7E-02 | 9.6E-04 | 0.021 |
| Total non-VOC/non-HAPS | | | | | 7.30% | 1.40% | 0.037 | 0.021 | 0.010 | 0.07 |
| Volatile organic HAPs | | | | | | | | | | |
| Benzene | 71-43-2 | VOC/HAP | | TOC | 0.052% | 0.032% | 2.7E-04 | 4.8E-04 | 7.1E-05 | 8.2E-04 |
| Bromomethane | 74-83-9 | VOC/HAP | | TOC | 0.0096% | 0.0049% | 4.9E-05 | 7.4E-05 | 1.3E-05 | 1.4E-04 |
| 2-Butanone | 78-93-3 | VOC/HAP | | TOC | 0.049% | 0.039% | 2.5E-04 | 5.9E-04 | 6.7E-05 | 9.0E-04 |
| Carbon Disulfide | 75-15-0 | VOC/HAP | | TOC | 0.013% | 0.016% | 6.7E-05 | 2.4E-04 | 1.8E-05 | 3.3E-04 |
| Chloroethane | 75-00-3 | VOC/HAP | | TOC | 0.00021% | 0.004% | 1.1E-06 | 6.0E-05 | 2.9E-07 | 6.2E-05 |
| Chloromethane | 74-87-3 | VOC/HAP | | TOC | 0.015% | 0.023% | 7.7E-05 | 3.5E-04 | 2.0E-05 | 4.4E-04 |
| Cumene | 92-82-8 | VOC/HAP | | TOC | 0.11% | 0 | 5.6E-04 | 0 | 1.5E-04 | 7.1E-04 |
| Ethylbenzene | 100-41-4 | VOC/HAP | | TOC | 0.28% | 0.038% | 1.4E-03 | 5.7E-04 | 3.8E-04 | 0.002 |
| Formaldehyde | 50-00-0 | VOC/HAP | | TOC | 0.083% | 0.69% | 4.5E-04 | 1.0E-02 | 1.2E-04 | 0.011 |
| n-Hexane | 100-54-3 | VOC/HAP | | TOC | 0.15% | 0.10% | 7.7E-04 | 1.5E-03 | 2.0E-04 | 0.002 |
| Isocane | 540-84-1 | VOC/HAP | | TOC | 0.0018% | 0.00031% | 9.2E-06 | 4.7E-06 | 2.4E-06 | 1.6E-05 |
| Methylene Chloride | 75-09-2 | non-VOC/HAP | | TOC | 0 | 0.00027% | 0 | 4.1E-06 | 0 | 4.1E-06 |
| MTBE | 1634-04-4 | VOC/HAP | | TOC | 0 | 0 | 0 | 0 | 0 | 0 |
| Styrene | 100-42-5 | VOC/HAP | | TOC | 0.0073% | 0.0054% | 3.7E-05 | 8.1E-05 | 9.8E-06 | 1.3E-04 |
| Tetrachloroethene | 127-18-4 | non-VOC/HAP | | TOC | 0.0077% | 0 | 4.0E-05 | 0 | 1.0E-05 | 5.0E-05 |
| Toluene | 100-88-3 | VOC/HAP | | TOC | 0.21% | 0.062% | 1.1E-03 | 9.3E-04 | 2.9E-04 | 0.002 |
| 1,1,1-Trichloroethane | 71-55-6 | VOC/HAP | | TOC | 0 | 0 | 0 | 0 | 0 | 0 |
| Trichloroethene | 79-01-6 | VOC/HAP | | TOC | 0 | 0 | 0 | 0 | 0 | 0 |
| Trichlorofluoromethane | 75-69-4 | VOC/HAP | | TOC | 0.0013% | 0 | 6.7E-06 | 0 | 1.8E-06 | 8.4E-06 |
| m-p-Xylene | 1330-20-7 | VOC/HAP | | TOC | 0.41% | 0.20% | 2.1E-03 | 3.0E-03 | 5.6E-04 | 0.006 |
| o-Xylene | 95-47-6 | VOC/HAP | | TOC | 0.08% | 0.057% | 4.1E-04 | 8.6E-04 | 1.1E-04 | 1.4E-03 |
| Total volatile organic HAPs | | | | | 1.50% | 1.30% | 0.008 | 0.020 | 0.002 | 0.029 |

Methodology
Limited Potential to Emit (tons/yr) = [Speciation Profile (%)] * [TOC (tons/yr)]
Speciation Profiles from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-15 and 11.1-16

Abbreviations
TOC = Total Organic Compounds
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
MTBE = Methyl tert butyl ether

Appendix A: Emissions Calculations

**Material Storage Piles
Limited Emissions**

Company Name: E & B Paving, Inc.
Source Address: CR 300 North, Angola, IN 46703
Permit Number: F151-27828-03222
Reviewer: Jason R. Krawczyk

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

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

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

| Material | Silt Content (wt %)* | Emission Factor (lb/acre/day) | Maximum Anticipated Pile Size (acres)** | PTE of PM (tons/yr) | PTE of PM10/PM2.5 (tons/yr) |
|---------------|----------------------|-------------------------------|---|---------------------|-----------------------------|
| Sand | 1.1 | 1.27 | 0.49 | 0.114 | 0.040 |
| Limestone | 1.1 | 1.27 | 1.16 | 0.270 | 0.094 |
| RAP | 0.8 | 0.93 | 0.47 | 0.079 | 0.028 |
| Gravel | 0 | 0.00 | 0.00 | 0.000 | 0.000 |
| Slag | 0 | 0.00 | 0.00 | 0.000 | 0.000 |
| Totals | | | | 0.46 | 0.16 |

Methodology

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

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

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

**Maximum anticipated pile size (acres) provided by the source.

Abbreviations

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

PM2.5 = PM10

PTE = Potential to Emit

Appendix A: Emissions Calculations
Material Processing, Handling, Crushing, Screening, and Conveying
Limited Emissions

Company Name: E & B Paving, Inc.
 Source Address: CR 300 North, Angola, IN 46703
 Permit Number: F151-27828-03222
 Reviewer: Jason R. Krawczyk

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

To estimate potential fugitive dust emissions from processing and handling of raw materials (batch or continuous drop operations), AP-42 emission factors for Aggregate Handling, Section 13.2.4 (fifth edition, 1/95) are utilized.

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

where: E_f = Emission factor (lb/ton)

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

| | | |
|--|---------|---------|
| Annual Asphalt Production Limitation = | 246,910 | tons/yr |
| Percent Asphalt Cement/Binder (weight %) = | 15.0% | |
| Maximum Material Handling Throughput = | 209,874 | tons/yr |

| Type of Activity | Limited PTE of PM (tons/yr) | Limited PTE of PM10 (tons/yr) | Limited PTE of PM2.5 (tons/yr) |
|--|-----------------------------|-------------------------------|--------------------------------|
| Truck unloading of materials into storage piles | 0.24 | 0.11 | 0.02 |
| Front-end loader dumping of materials into feeder bins | 0.24 | 0.11 | 0.02 |
| Conveyor dropping material into dryer/mixer or batch tower | 0.24 | 0.11 | 0.02 |
| Total (tons/yr) | 0.71 | 0.34 | 0.05 |

Methodology

The percent asphalt cement/binder provided by the source.

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

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

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

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

Material Screening and Conveying (AP-42 Section 19.2.2)

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

| Operation | Uncontrolled Emission Factor for PM (lbs/ton)* | Uncontrolled Emission Factor for PM10 (lbs/ton)* | Limited PTE of PM (tons/yr) | Limited PTE of PM10/PM2.5 (tons/yr)** |
|--|--|--|-----------------------------|---------------------------------------|
| Crushing | 0.0054 | 0.0024 | 0.57 | 0.25 |
| Screening | 0.025 | 0.0087 | 2.62 | 0.91 |
| Conveying | 0.003 | 0.0011 | 0.31 | 0.12 |
| Limited Potential to Emit (tons/yr) = | | | 3.50 | 1.28 |

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: Emissions Calculations
Unpaved Roads
Limited Emissions**

Company Name: E & B Paving, Inc.
Source Address: CR 300 North, Angola, IN 46703
Permit Number: F151-27828-03222
Reviewer: Jason R. Krawczyk

Unpaved Roads at Industrial Site

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

| | | |
|--|-----------|------------|
| Annual Asphalt Production Limitation = | 246,910 | tons/yr |
| Percent Asphalt Cement/Binder (weight %) = | 15.0% | |
| Maximum Material Handling Throughput = | 209,874 | tons/yr |
| Maximum Asphalt Cement/Binder Throughput = | 37,037 | tons/yr |
| No. 2 Fuel Oil Limitation = | 1,200,076 | gallons/yr |

| Process | Vehicle Type | Maximum Weight of Vehicle (tons) | Maximum Weight of Load (tons) | Maximum Weight of Vehicle and Load (tons/trip) | Maximum trips per year (trip/yr) | Total Weight driven per year (ton/yr) | Maximum one-way distance (feet/trip) | Maximum one-way distance (mi/trip) | Maximum one-way miles (miles/yr) |
|---------------------------------|-------------------------|----------------------------------|-------------------------------|--|----------------------------------|---------------------------------------|--------------------------------------|------------------------------------|----------------------------------|
| Aggregate/RAP Truck Enter Full | Dump truck (16 CY) | 28.0 | 22.4 | 48.4 | 9.4E+03 | 4.5E+05 | 330 | 0.063 | 585.6 |
| Aggregate/RAP Truck Leave Empty | Dump truck (16 CY) | 28.0 | 0 | 28.0 | 9.4E+03 | 2.4E+05 | 330 | 0.063 | 585.6 |
| Aggregate/RAP Loader Full | Front-end loader (3 CY) | 36.0 | 4.2 | 40.2 | 5.0E+04 | 2.0E+06 | 330 | 0.063 | 3123.1 |
| Aggregate/RAP Loader Empty | Front-end loader (3 CY) | 36.0 | 0 | 36.0 | 5.0E+04 | 1.8E+06 | 330 | 0.063 | 3123.1 |
| Total | | | | | 1.2E+05 | 4.5E+06 | | | 7.4E+03 |

Average Vehicle Weight Per Trip = 38.0 tons/trip
Average Miles Per Trip = 0.063 miles/trip

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

| | PM | PM10 | PM2.5 | |
|-----------|------|------|-------|---|
| where k = | 4.9 | 1.5 | 0.15 | lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads) |
| s = | 4.8 | 4.8 | 4.8 | % = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant Road) |
| a = | 0.7 | 0.9 | 0.9 | = constant (AP-42 Table 13.2.2-2) |
| W = | 38.0 | 38.0 | 38.0 | tons = average vehicle weight (provided by source) |
| b = | 0.45 | 0.45 | 0.45 | = constant (AP-42 Table 13.2.2-2) |

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

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

| | PM | PM10 | PM2.5 | |
|--|------|------|-------|---|
| Unmitigated Emission Factor, E_f = | 8.08 | 2.06 | 0.21 | lb/mile |
| Mitigated Emission Factor, E_{ext} = | 5.32 | 1.35 | 0.14 | lb/mile |
| Dust Control Efficiency = | 50% | 50% | 50% | (pursuant to control measures outlined in fugitive dust control plan) |

| Process | Vehicle Type | Unmitigated PTE of PM (tons/yr) | Unmitigated PTE of PM10 (tons/yr) | Unmitigated PTE of PM2.5 (tons/yr) | Mitigated PTE of PM (tons/yr) | Mitigated PTE of PM10 (tons/yr) | Mitigated PTE of PM2.5 (tons/yr) | Controlled PTE of PM (tons/yr) | Controlled PTE of PM10 (tons/yr) | Controlled PTE of PM2.5 (tons/yr) |
|---------------------------------|-------------------------|---------------------------------|-----------------------------------|------------------------------------|-------------------------------|---------------------------------|----------------------------------|--------------------------------|----------------------------------|-----------------------------------|
| Aggregate/RAP Truck Enter Full | Dump truck (16 CY) | 2.37 | 0.60 | 0.06 | 1.58 | 0.40 | 0.04 | 0.78 | 0.20 | 0.02 |
| Aggregate/RAP Truck Leave Empty | Dump truck (16 CY) | 2.37 | 0.60 | 0.06 | 1.58 | 0.40 | 0.04 | 0.78 | 0.20 | 0.02 |
| Aggregate/RAP Loader Full | Front-end loader (3 CY) | 12.82 | 3.22 | 0.32 | 8.30 | 2.12 | 0.21 | 4.15 | 1.06 | 0.11 |
| Aggregate/RAP Loader Empty | Front-end loader (3 CY) | 12.82 | 3.22 | 0.32 | 8.30 | 2.12 | 0.21 | 4.15 | 1.06 | 0.11 |
| Totals | | 29.98 | 7.64 | 0.76 | 19.74 | 5.02 | 0.50 | 9.86 | 2.51 | 0.25 |

Methodology

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

Abbreviations

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

Appendix A: Emissions Calculations
Paved Roads
Limited Emissions

Company Name: E & B Paving, Inc.
 Source Address: CR 390 North, Angola, IN 46703
 Permit Number: F151-27828-03222
 Reviewer: Jason R. Krawczyk

Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (12/2003).

Annual Asphalt Production Limitation = 246,910 tons/yr
 Percent Asphalt Cement/Binder (weight %) = 15.0%
 Maximum Material Handling Throughput = 209,874 tons/yr
 Maximum Asphalt Cement/Binder Throughput = 37,037 tons/yr
 No. 2 Fuel Oil Limitation = 1,200,078 gallons/yr

| Process | Vehicle Type | Maximum Weight of Vehicle (tons) | Maximum Weight of Load (tons) | Maximum Weight of Vehicle and Load (tons/trip) | Maximum trips per year (trip/yr) | Total Weight driven per day (ton/yr) | Maximum one-way distance (feet/trip) | Maximum one-way distance (mi/trip) | Maximum one-way miles (miles/yr) |
|---------------------------------|-------------------------|----------------------------------|-------------------------------|--|----------------------------------|--------------------------------------|--------------------------------------|------------------------------------|----------------------------------|
| Aggregate/RAP Truck Enter Full | Dump truck (16 CY) | 0.0 | 0.0 | 0.00 | 0.0E+00 | 0.0E+00 | 330 | 0.063 | 0.0 |
| Aggregate/RAP Truck Leave Empty | Dump truck (16 CY) | 0.0 | 0.0 | 0.00 | 0.0E+00 | 0.0E+00 | 330 | 0.063 | 0.0 |
| Aggregate/RAP Loader Full | Front-end loader (3 CY) | 0.0 | 0.0 | 0.00 | 0.0E+00 | 0.0E+00 | 330 | 0.063 | 0.0 |
| Aggregate/RAP Loader Empty | Front-end loader (3 CY) | 0.0 | 0.0 | 0.00 | 0.0E+00 | 0.0E+00 | 330 | 0.063 | 0.0 |
| Total | | | | | | | | | |
| | | | | | 0.0E+00 | 0.0E+00 | | | 0.0E+00 |

Average Vehicle Weight Per Trip = 0.0 tons/trip
 Average Miles Per Trip = 0.000 miles/trip

Unmitigated Emission Factor, Ef = [k * (sl/2)^{0.85} * (W/3)^{1.5} - C] (Equation 1 from AP-42 13.2.1)

| | PM | PM10 | PM2.5 | |
|-----------|---------|---------|---------|--|
| where k = | 0.082 | 0.016 | 0.0024 | ft/mi = particle size multiplier (AP-42 Table 13.2.1-1) |
| W = | 0.0 | 0.0 | 0.0 | tons = average vehicle weight (provided by source) |
| C = | 0.00047 | 0.00047 | 0.00038 | ft/mi = emission factor for vehicle exhaust, brake wear, and tire wear (AP-42 Table 13.2.1-2) |
| sl = | 0.6 | 0.6 | 0.6 | g/m ³ = Ubiquitous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months) |

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Emt = E * [1 - (p/4N)]

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

| | PM | PM10 | PM2.5 | |
|-----------------------------------|------|------|-------|---|
| Unmitigated Emission Factor, Ef = | 0.00 | 0.00 | 0.00 | lb/mile |
| Mitigated Emission Factor, Emt = | 0.00 | 0.00 | 0.00 | lb/mile |
| Dust Control Efficiency = | 50% | 50% | 50% | (pursuant to control measures outlined in fugitive dust control plan) |

| Process | Vehicle Type | Unmitigated PTE of PM (tons/yr) | Unmitigated PTE of PM10 (tons/yr) | Unmitigated PTE of PM2.5 (tons/yr) | Mitigated PTE of PM (tons/yr) | Mitigated PTE of PM10 (tons/yr) | Mitigated PTE of PM2.5 (tons/yr) | Controlled PTE of PM (tons/yr) | Controlled PTE of PM10 (tons/yr) | Controlled PTE of PM2.5 (tons/yr) |
|---------------------------------|-------------------------|---------------------------------|-----------------------------------|------------------------------------|-------------------------------|---------------------------------|----------------------------------|--------------------------------|----------------------------------|-----------------------------------|
| Aggregate/RAP Truck Enter Full | Dump truck (16 CY) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Aggregate/RAP Truck Leave Empty | Dump truck (16 CY) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Aggregate/RAP Loader Full | Front-end loader (3 CY) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Aggregate/RAP Loader Empty | Front-end loader (3 CY) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Totals | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Methodology

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

Abbreviations

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

**Appendix A: Emissions Calculations
Cold Mix Asphalt Production and Stockpiles
Limited Emissions**

Company Name: E & B Paving, Inc.
Source Address: CR 300 North, Angola, IN 46703
Permit Number: F151-27828-03222
Reviewer: Jason R. Krawczyk

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

Cold Mix Asphalt VOC Usage Limitation = tons/yr

Volatle Organic Compounds

| | Maximum weight % of VOC solvent in binder | Weight % VOC solvent in binder that evaporates | VOC Solvent Usage Limitation (tons/yr) | Limited PTE of VOC (tons/yr) |
|---|---|--|--|------------------------------|
| Cut back asphalt rapid cure (assuming gasoline or naphtha solvent) | 25.3% | 95.0% | 29.77 | 28.28 |
| Cut back asphalt medium cure (assuming kerosene solvent) | 28.6% | 70.0% | 40.40 | 28.28 |
| Cut back asphalt slow cure (assuming fuel oil solvent) | 20.0% | 25.0% | 113.13 | 28.28 |
| Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent) | 15.0% | 46.4% | 60.95 | 28.28 |
| Other asphalt with solvent binder | 25.9% | 2.5% | 1131.27 | 28.28 |
| Worst Case Limited PTE of VOC = | | | | 28.28 |

Hazardous Air Pollutants

| | |
|---|--------------|
| Worst Case Total HAP Content of VOC solvent (weight %) = | 26.08% |
| Worst Case Single HAP Content of VOC solvent (weight %) = | 9.0% Xylenes |
| Limited PTE of Total HAPs (tons/yr) = | 7.38 |
| Limited PTE of Single HAP (tons/yr) = | 2.55 Xylenes |

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

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

Methodology

Limited PTE of VOC (tons/yr) = [Weight % VOC solvent in binder that evaporates] * [VOC Solvent Usage Limitation (tons/yr)]
 Limited PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]
 Limited PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]
 *Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehs.com/publications/catalog/contents/tp.htm>

Abbreviations

VOC = Volatile Organic Compounds
PTE = Potential to Emit

**Appendix A: Emissions Calculations
Gasoline Fuel Transfer and Dispensing Operation
Limited Emissions**

Company Name: E & B Paving, Inc.
Source Address: CR 300 North, Angola, IN 46703
Permit Number: F151-27828-03222
Reviewer: Jason R. Krawczyk

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

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

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

Volatile Organic Compounds

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

Hazardous Air Pollutants

| | | |
|--|--------|---------|
| Worst Case Total HAP Content of VOC solvent (weight %)* = | 26.08% | |
| Worst Case Single HAP Content of VOC solvent (weight %)* = | 9.0% | Xylenes |
| Limited PTE of Total HAPs (tons/yr) = | 0.00 | |
| Limited PTE of Single HAP (tons/yr) = | 0.00 | Xylenes |

Methodology

The gasoline throughput was provided by the source.

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

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

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

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

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2.

Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at:

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

Abbreviations

VOC = Volatile Organic Compounds

PTE = Potential to Emit



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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Commissioner

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(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

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

TO: Steve Henderson
E & B Paving, Inc.
286 W 300 N
Anderson, IN 46012

DATE: October 8, 2009

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

SUBJECT: Final Decision
FESOP
151-27828-03222

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

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

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

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

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

| | | | |
|----------------------------|--|---|--|
| IDEM Staff | DPABST 10/8/2009 | | AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING |
| Name and address of Sender | E & B Paving, Inc. 151 27828 03222 (Final)  Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204 | Type of Mail: CERTIFICATE OF MAILING ONLY | |

| Line | Article Number | Name, Address, Street and Post Office Address | Postage | Handing Charges | Act. Value (If Registered) | Insured Value | Due Send if COD | R.R. Fee | S.D. Fee | S.H. Fee | Rest. Del. Fee | Remarks |
|------|----------------|---|---------|-----------------|----------------------------|---------------|-----------------|----------|----------|----------|----------------|---------|
| 1 | | Steve Henderson E & B Paving, Inc. 286 W 300 N Anderson IN 46012 (Source CAATS) (CONFIRM DELIVERY) | | | | | | | | | | |
| 2 | | Steuben County Board of Commissioners 317 S Wayne Suite 2H Angola IN 46703 (Local Official) | | | | | | | | | | |
| 3 | | Steuben County Health Department 317 S. Wayne St, Community Center Suite 3-A Angola IN 46703-1938 (Health Department) | | | | | | | | | | |
| 4 | | Mr. Steve Christman NISWMD 2320 W 800 S, P.O. Box 370 Ashley IN 46705 (Affected Party) | | | | | | | | | | |
| 5 | | Angola City Council and Mayors Office 210 N. Public Square Angola IN 46703 (Local Official) | | | | | | | | | | |
| 6 | | Angola Carrengie Public Library 322 S Wayne Angola IN 46703-1990 (Library) | | | | | | | | | | |
| 7 | | Mr. Diane Hanson 490 E 300 N Angola IN 46703 (Affected Party) | | | | | | | | | | |
| 8 | | Niann Lautzenhiser 660 LN 210 Hamilton LK Hamilton IN 46742 (Affected Party) | | | | | | | | | | |
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| Total number of pieces Listed by Sender | Total number of Pieces Received at Post Office | Postmaster, Per (Name of Receiving employee) | 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 mil 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 inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels. |
|---|--|--|---|