



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: September 16, 2010

RE: MAC Construction and Excavating, Inc. / 019-28936-05282

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

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot12/03/07



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Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

MAC Construction and Excavating, Inc.
1417 Quarry Road
Jeffersonville, Indiana 47130

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

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

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

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

Operation Permit No.: F019-28936-05282	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: September 16, 2010 Expiration Date: September 16, 16, 2020

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SECTION A SOURCE SUMMARY

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

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

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

Source Address:	1417 Quarry Road, Jeffersonville, Indiana 47130
General Source Phone Number:	812-670-0204
SIC Code:	2951
County Location:	Clark
Source Location Status:	Nonattainment for PM2.5 standard Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

- (a) One (1) drum mix asphalt plant, identified as Unit ID ES1, with a maximum rated throughput capacity of 400 tons per hour, equipped with one (1) 100 million British thermal units per hour (MMBtu/hr) fuel oil-fired burner, using either No. 4 fuel oil, No. 6 fuel oil, or waste oil, with particulate emissions controlled by one (1) baghouse, identified as CD-1, exhausting at one (1) stack (Stack ID: EP1). This drum mix unit uses slag in its aggregate mix, and does not produce cold mix.

Under NSPS 40 CFR Part 60, Subpart I, this source is considered an affected source.

- (b) One (1) 30,000 gallon split fuel tank, consisting of one (1) 19,500 gallon storage reservoir, identified as Tank 1a, and one (1) 10,500 gallon storage reservoir, identified as Tank 1b, with both storage reservoirs separated by a permanent wall divider;
- (c) One (1) 20,000 gallon liquid asphalt cement storage tank, identified as Tank 2; and
- (d) One (1) 15,000 gallon liquid asphalt storage tank, identified as Tank 3.

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) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight including:
- (1) One (1) No. 2 distillate fuel oil-fired hot oil heater, rated at 1.2 MMBtu per hour; exhausting through stack EP2.
- (b) VOC and HAP storage containers storing lubricating oils, hydraulic oils, machining oils,

and machining fluids.

- (c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2(e)(2)]
- (d) Structural steel and bridge fabrication activities using 80 tons or less of welding consumables.
- (e) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (f) Aggregate and RAP storage piles.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, F019-28936-05282, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

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

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

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

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

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

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

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

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

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

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

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

- (i) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and
- (ii) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

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

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

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

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Southeast Regional Office phone: (812) 358-2027; fax: (812) 358-2058.

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

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

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

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

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

(C) Corrective actions taken.

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

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

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

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

- (a) All terms and conditions of permits established prior to F019-28936-05282 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

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

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

**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]**

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

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

(1) That this permit contains a material mistake.

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

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

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

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

B.16 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

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

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

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

and

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

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

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

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

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

B.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Overall Source Limit [326 IAC 2-8]

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

- (a) Pursuant to 326 IAC 2-8:
 - (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

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

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

C.5 Fugitive Dust Emissions [326 IAC 6-4]

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

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

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

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

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

All required notifications shall be submitted to:

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

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

and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

C.8 Performance Testing [326 IAC 3-6]

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 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.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.11 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.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

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

C.13 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.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

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

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

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

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

C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) drum mix asphalt plant, identified as Unit ID ES1, with a maximum rated throughput capacity of 400 tons per hour, equipped with one (1) 100 million British thermal units per hour (MMBtu/hr) fuel oil-fired burner, using either No. 4 fuel oil, No. 6 fuel oil, or waste oil, with particulate emissions controlled by one (1) baghouse, identified as CD-1, exhausting at one (1) stack (Stack ID: EP1). This drum mix unit uses slag in its aggregate mix, and does not produce cold mix.

Under NSPS 40 CFR Part 60, Subpart I, this source 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.)

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

D.1.1 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Matter Limitations), particulate emissions from the dryer/mixer shall not exceed 0.03 gr/dscf.

D.1.2 PSD Minor Limit [326 IAC 2-2]

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

- (a) The amount of asphalt processed shall not exceed 960,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The Particulate Matter (PM) emissions from the dryer/mixer shall not exceed 0.407 pounds of PM per ton of asphalt produced.

Compliance with these limits, combined with limited potential to emit PM emissions to less than two hundred fifty (250) tons per twelve (12) consecutive month period will render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.3 FESOP Limits [326 IAC 2-8-4][326 IAC 8-1-6] [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 960,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The amount of slag used shall not exceed 3,634 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (c) PM₁₀ emissions from the dryer/mixer shall not exceed 0.172 pounds per ton of asphalt produced.
- (d) PM_{2.5} emissions from the dryer/mixer shall not exceed 0.191 pounds per ton of asphalt produced.
- (e) CO emissions from the dryer/mixer shall not exceed 0.130 pounds per ton of asphalt produced.
- (f) VOC emissions shall not exceed 0.032 pounds per ton of asphalt produced.

- (g) SO₂ emissions from the use of slag in the dryer/mixer shall not exceed 0.74 pounds SO₂ per ton of slag processed.

Compliance with these limits, combined with limited potential to emit PM₁₀, PM_{2.5}, SO₂, and CO from all other emission units, shall limit source-wide total potential to emit of PM₁₀, PM_{2.5}, SO₂ and CO emissions to less than one hundred (100) tons per twelve (12) consecutive month period, each, and VOC to less than twenty-five (25) tons per twelve (12) consecutive month period. Therefore, compliance with these limits will render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), 326 IAC 2-7 (Part 70), 326 IAC 2-5.1-3 Nonattainment NSR, and 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

D.1.4 Fuel Limitations [326 IAC 2-8-4] [326 IAC 2-2][326 IAC 2-4.1]

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

(a) Fuel Content and Slag Specifications

- (1) The sulfur content of the No. 6 fuel oil used shall not exceed five-tenths percent (0.50%) by weight.
- (2) The sulfur content of the No. 4 fuel oil shall not exceed five-tenths percent (0.5%) by weight.
- (3) The sulfur content of the waste oil shall not exceed forty-seven hundredths percent (0.47%) by weight.
- (4) The sulfur content of the slag shall not exceed one and five-tenths percent (1.5%) by weight.
- (5) The HCl emissions shall not exceed 0.007524 pounds of HCl per gallon of waste oil used.
- (6) The chlorine content of the waste oil shall not exceed one hundred fourteen thousandths percent (0.114%) by weight.

(b) Pursuant to 326 IAC 2-8-4, the SO₂ emissions from the aggregate mixer/dryer burner shall be limited as follows:

- (1) Pursuant to 326 IAC 2-8-4, the SO₂ emissions from the mixer/dryer burner shall be limited as follows:
 - (i) The usage of No. 6 fuel oil for the dryer burner shall not exceed 2,422,954 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

For the purpose of determining compliance with this limit based on SO₂ emissions, the following shall apply:

- (i) every 1,000 gallons of No. 4 fuel oil burned in the aggregate dryer burner shall be equivalent to 952.4 gallons of No. 6 fuel oil based on SO₂ emissions and a maximum No. 4 fuel oil sulfur content of 0.5% such that the total gallons of No. 6 fuel oil input does not exceed the limit specified;
- (ii) every 1,000 gallons of waste oil burned in the aggregate dryer burner shall be equivalent to 860.0 gallons of No. 6 fuel oil based on SO₂ emissions and a maximum waste oil sulfur content of 0.47% such that the total gallons of No. 6 fuel oil input does not exceed the limit specified.

Compliance with these limits, combined with the emissions from all other 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.

D.1.5 SO₂ Emissions [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO₂ emissions from the dryer/mixer, which exhaust through stack EP1 shall not exceed the following:

- (a) 0.5 pounds per million Btu heat input for distillate oil combustion; and
- (b) 1.6 pounds per million Btu heat input for residual oil combustion.

Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated by reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu upon request.

D.1.6 VOC Emissions [326 IAC 2-8-4][326 IAC 2-2] [326 IAC 8-5-2]

The Permittee shall not use cutback asphalt liquid binder nor produce cold mix asphalt. Any change or modification that would cause the source to use cutback asphalt or begin cold mix production shall require prior approval from IDEM, OAQ.

D.1.7 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for the dryer/mixer, and its baghouse control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.8 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with the Conditions D.1.1, D.1.2, and D.1.3, the Permittee shall perform the following:

- (a) In order to ensure compliance with the PM limit, the Permittee shall perform PM testing of the dryer/mixer utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.
- (c) In order to demonstrate compliance with the PM_{2.5} and PM₁₀ limits, the Permittee shall perform PM_{2.5} and PM₁₀ testing on the dryer/mixer not later than 180 days of publication of the new or revised condensible PM test method(s) referenced in the U.S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM_{2.5}), signed on May 8th, 2008, or five (5) years from the most recent valid compliance stack test, whichever is later. This testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). These tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM₁₀ and PM_{2.5} includes filterable and condensible PM.
- (d) In order to demonstrate compliance with the SO₂ limits, due to the usage of slag, the

Permittee shall perform SO₂ testing on dryer/mixer not later than 180 days of the issuance of the permit when slag is being used, or from the time slag is first used, whichever is earlier. This testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.1.9 PM, PM₁₀, and PM_{2.5} Control

- (a) In order to comply with Conditions D.1.1, D.1.2, D.1.3 (c), and D.1.3(d), the baghouse for particulate control, shall be in operation and control emissions from dryer/mixer at all times that the rotary 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 Sulfur Dioxide (SO₂) Emissions and Sulfur Content

- (a) Compliance with the slag limitations established in Condition D.1.4(a)(4) shall be determined utilizing one of the following options:
 - (1) Providing vendor analysis of all slag delivered, if accompanied by a vendor certification; or
 - (2) Analyzing a sample of the slag delivery to determine the sulfur content of the 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.

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.
- (b) Compliance with the fuel limitations established in Condition D.1.4 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) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate compliance with Condition D.1.4 by one of the following methods:
 - (A) Providing vendor analysis of all fuel delivered, if accompanied by a vendor certification; or
 - (B) Analyzing the fuel sample to determine the sulfur content of the fuel via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (i) Fuel samples may be collected from the fuel storage 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 100 MMBtu/hr burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

D.1.11 Hydrogen Chloride (HCl) Emissions and Chlorine Content

Pursuant to 326 IAC 2-8-4, the Permittee shall demonstrate compliance with Condition D.1.4(a)(5) providing a vendor analysis of each fuel delivery accompanied by a vendor certification.

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

D.1.12 Visible Emissions Notations

- (a) Visible emission notations of the conveyers, material transfer points, and the dryer/mixer, stack exhaust (EP1) shall be performed at least once per day 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 emission is observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions and 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 mixer/dryer, at least once per day when the mixing/drying 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 and Exceedances. A pressure reading that is outside of the above mentioned range is not a deviation from this permit, however, failure to take response steps in accordance with Section C – Response to Excursions and 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

In the event that bag failure has been observed:

- (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 baghouses' 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 Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.15 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.1.2 and D.1.3, the Permittee shall maintain records of the amount of asphalt produced per month.
- (b) To document the compliance status with Condition D.1.3, 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 Condition D.1.4. 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 in weight percent (wt%) and the 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.

- (c) To document the compliance status with Conditions D.1.3, and D.1.4, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken daily and shall be complete and sufficient to establish compliance with the SO₂, HCl and NO_x emission limits established in Conditions D.1.3, and D.1.4. For the annual fuel limits, the compliance determination period is the most recent twelve (12) consecutive month period. For the HCl and sulfur content limits, the compliance determination period is each calendar month.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel usage, sulfur content, heat content, and equivalent sulfur dioxide and

nitrogen oxide emission rates for each fuel used at the source per month;

- (3) Actual recycled (waste) oil usage, chlorine content in weight percent (wt%), and equivalent hydrogen chloride (HCl) emission rate per month;
- (4) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

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

- (5) Fuel supplier certifications;
 - (6) The name of the fuel supplier; and
 - (7) A statement from the fuel supplier that certifies the sulfur content of the No. 2 fuel oil and the recycled (waste) oil, and the chlorine, ash, and lead content of recycled (waste) oil.
- (d) To document the compliance status with Condition D.1.12, the Permittee shall maintain records of visible emission notations of the conveyers, material transfer points, and the mixer/dryer stack exhaust (EP-1) at least once per day when the asphalt plant is operating. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the plant did not operate that day).
 - (e) To document the compliance status with Condition D.1.13, the Permittee shall maintain records of the pressure drop daily. 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 mixer/dryer did not operate that day).
 - (f) The Permittee shall maintain records of all recording/monitoring data, calculations, and support information. Section C - General Record Keeping Requirements, contains the Permittee's obligation with regard to the records required by this condition. 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.

D.1.16 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.2, D.1.3, D.1.4, and D.1.5, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (b) One (1) 30,000 gallon split fuel tank, consisting of one (1) 19,500 gallon storage reservoir, identified as Tank 1a, and one (1) 10,500 gallon storage reservoir, identified as Tank 1b, with both storage reservoirs separated by a permanent wall divider;
- (c) One (1) 20,000 gallon liquid asphalt cement storage tank, identified as Tank 2; and
- (d) One (1) 15,000 gallon liquid asphalt storage tank, identified as Tank 3.

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

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

D.2.1 Record Keeping Requirements [326 IAC 8-9]

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

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) drum mix asphalt plant, identified as Unit ID ES1, with a maximum rated throughput capacity of 400 tons per hour, equipped with one (1) 100 million British thermal units per hour (MMBtu/hr) fuel oil-fired burner, using either No. 4 fuel oil, No. 6 fuel oil, or waste oil, with particulate emissions controlled by one (1) baghouse, identified as CD-1, exhausting at one (1) stack (Stack ID: EP1). This drum mix unit uses slag in its aggregate mix, and does not produce cold mix.

Under NSPS 40 CFR Part 60, Subpart I, this source 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.)

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

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart I.

E.1.2 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.90, Subpart I]

Pursuant to 326 IAC 12, (40 CFR Part 60.90, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the particulate matter emissions from the aggregate mixing and drying operation (Emission Unit ID ES1) shall be limited to 0.04 grains per dry standard cubic foot (gr/dscf). Compliance with condition D.1.7 will satisfy this requirement.

The dryer/mixer is subject to the following provisions of 40 CFR 60, Subpart I:

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

This Subpart is shown in its entirety in Attachment B of the permit.

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

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

Source Name: MAC Construction and Excavating, Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
FESOP Permit No.: F019-28936-05282

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: MAC Construction and Excavating, Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
FESOP Permit No.: F019-28936-05282

This form consists of 2 pages

Page 1 of 2

- | |
|--|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16 |
|--|

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

FESOP Quarterly Report

Source Name: MAC Construction and Excavating, Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
FESOP Permit No.: F019-28936-05282
Facility: Entire Asphalt Plant
Parameter: Asphalt Production
Limit: Shall not exceed 960,000 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
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

FESOP Quarterly Report

Source Name: MAC Construction and Excavating, Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
FESOP Permit No.: F019-28936-05282
Facility: Entire Asphalt Plant
Parameter: Slag Usage
Limit: Shall not exceed 3,634 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
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

FESOP Quarterly Report

Source Name: MAC Construction and Excavating, Inc.
 Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
 FESOP Permit No.: F019-28936-05282
 Facility: Dryer/Mixer
 Parameter: No. 6 Fuel Oil and Equivalent Usage to limit SO2 emissions
 Limit: The usage of No. 6 Fuel oil and equivalents for the dryer burner shall not exceed 2,422,954 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. Every 1,000 gallons of No. 4 fuel oil shall be equivalent to 952.4 gallons of No. 6 fuel oil. Every 1,000 gallons of waste oil used shall be equivalent to 860.0 gallons of No. 6 fuel oil.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	No. 6 Fuel Oil and Equivalent Usage This Month (gallons)	No. 6 Fuel Oil and Equivalent Usage Previous 11 Months (gallons)	No. 6 Fuel Oil and Equivalent Usage 12 Month Total (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: _____

**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: MAC Construction and Excavating, Inc.
 Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
 FESOP Permit No.: F019-28936-05282

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

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

ATTACHMENT A

**ASPHALT PLANT SITE FUGITIVE DUST CONTROL PLAN
For**

**MAC Construction and Excavating, Inc.
Jeffersonville, Indiana**

Revised: July 1, 2010

The one lane road on the asphalt plant site is asphalt. Hanson's Quarry has asphalt from their scales to Hamburg Pike. The two-lane road from the scale house to the asphalt plant is crushed limestone.

Hanson's Quarry maintains a water truck to control dust. A twenty-five (25) foot earthen berm has been created on the south side of the facility to reduce the possibility of dust traveling off the property.

The facility also has an automatic dust suppression sprinkler system which comes on at regular intervals not to exceed every two (2) hours during plant operation, and more frequently as needed to control dust.

ATTACHMENT B

NSPS Subpart I, Hot Mix Asphalt Facilities for FESOP Renewal No.: 019-28936-05282 MAC Construction and Excavating, Inc.

§ 60.90 *Applicability and designation of affected facility.*

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

§ 60.91 *Definitions.*

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

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

[51 FR 12325, Apr. 10, 1986]

§ 60.92 *Standard for particulate matter.*

- (a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:
 - (1) Contain particulate matter in excess of 0.04 gr/dscf (90 mg/dscm).
 - (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.

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

Addendum to the Technical Support Document (ATSD) for a
FESOP Renewal

Source Background and Description

Source Name:	MAC Construction and Excavating, Inc.
Source Location:	1417 Quarry Road, Jeffersonville, Indiana 47130
County:	Clark
SIC Code:	2951
Operation Permit No.:	F 019-28936-05282
Permit Reviewer:	Jack Harmon

On July 13, 2010, the Office of Air Quality (OAQ) had a notice published in the Evening News, Jeffersonville, Indiana, stating that MAC Construction and Excavating, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to continue to operate its stationary drum mix asphalt plant in Jeffersonville, Indiana. The notice also stated that the OAQ proposed to issue the FESOP Renewal for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed. Due to requests for a public hearing received during the comment period, IDEM decided to conduct a public meeting on September 2, 2010 and extended the public comment period until September 7, 2010.

On August 4, 2010, the Office of Air Quality published a notice in the Evening News, Jeffersonville, Indiana, stating that a public meeting would be held to receive comments from citizens regarding the permit. On September 2, 2010, a public meeting was held at the River Valley Middle School, 2220 New Albany-Charlestown Road, Jeffersonville, Indiana 47160. Doug Wagner represented IDEM as the meeting officer. Also present from IDEM were Matthew Stuckey, Jack Harmon, Vaughn Ison, Ronnie Boehm, Rob Elstro, Amber Finkelstein, and Patty Pear.

Written comments received are addressed below. A listing of citizens who submitted comments is shown in Appendix A of this document.

Comments and Responses

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

The following comments were received from citizens:

Comment 1:

Many commenters stated that they did not like the location of this source, the noxious odors and fumes, noise, inability to spend time outdoors, and the general decline in the quality of life in Jeffersonville. Commenters also stated that there were zoning issues and violations with the plant.

Response to Comment 1:

IDEM, OAQ recognizes that these matters are of great personal concern to the commenter's and other local residents. However, IDEM, OAQ does not have the regulatory authority to consider noise, odors and fumes, zoning, decline in the quality of life or loss of enjoyment of property when issuing air permits. In addition, IDEM OAQ does not have authority to regulate zoning, noise, odor, or traffic on roads or railroads. These matters are under the separate authority of local government units, such as a zoning board, county council, or county commission.

Pursuant to IC 13-30-2-1(1) "A person may not discharge, emit, cause, allow, or threaten to discharge, emit, cause, or allow any contaminant or waste, including any noxious odor, either alone or in combination with contaminants from other sources, into the environment, in any form that causes or would cause pollution that violates or would violate rules, standards, or discharge or emission requirements adopted by the appropriate board under the environmental management laws."

The Air Pollution Control Board (APCB) is responsible for adopting rules regarding various air pollution matters. IDEM is following the air permit rules as set out in Title 326 of the Indiana Administrative Code, as passed by the APCB. As a result, this permit does not address odors because the APCB has not adopted or incorporated any state or federal rules, standards, or emission requirements for noxious odors into Title 326 of the Indiana Administrative Code.

However, odors might be an indicator that the source is out of compliance, please contact the current Compliance Inspector, Vaughn Ison, at (317)233-0432 or IDEM's Southeastern Regional Office at (812) 358-2027 to file an odor complaint. In addition, IDEM's Complaint Clearinghouse provides more information regarding filing complaints and is available at IDEM's website at <http://www.in.gov/idem/5274.htm>. No changes were made as a result of this comment.

Comment 2:

Many commenters stated that MAC Construction has fugitive emissions of particulate matter from the asphalt ingredients that are processed onsite. The particulate matter accumulates on the commenters' cars and houses and is hard to remove. Many of the commenters' flowers and gardens have been ruined by the particulate matter. Additionally, this has prohibited many commenters from spending time outdoors. One commenter also asked IDEM to distinguish between fugitive dust and lawful emissions.

Response to Comment 2:

Condition C.6 of the permit regulates fugitive dust emissions by incorporating the requirements of 326 IAC 6-4. According to this condition, 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. PM, PM10, PM2.5, and Fugitive Dust are all regulated criteria pollutants addressed in the permit.

Fugitive dust crosses the property lines at ground level and is visible. Lawful emissions meet the permit's emission limits and cross property lines at higher altitudes. Emissions of dust might be an indicator that the source is out of compliance. IDEM encourages residents to contact the Compliance Inspector when they witness abnormal emissions at the source. Please contact the current Compliance Inspector, Vaughn Ison, at (317)233-0432 or IDEM's Southern Regional Office at (812) 358-2027 to file a fugitive dust complaint. In addition, IDEM's Complaint Clearinghouse provides more information regarding filing complaints and is available at IDEM's website at <http://www.in.gov/idem/5274.htm>. No changes were made as a result of this comment.

Comment 3:

Many commenters stated that they did not like the fact that a wetland area that acted as a buffer between MAC and the neighboring residents, was altered and want the wetland restored.

Response to Comment 3:

IDEM, OAQ understands the concerns regarding the loss of nature and wildlife. The trees were removed by parties other than MAC Construction, and the area in question is not on the permitted property. The Office of Air Quality does not have the regulatory authority to consider wetlands when issuing air permits and only deals with the property on which the Permittee is located. IDEM, OAQ encourages residents to contact the IDEM Office of Water Quality (OWQ) for issues regarding the Wetlands. The contact information for the Complaint Coordinator is (800) 451-6027, extension 24464, or online at <http://www.in.gov/idem/5274.htm>. No changes were made as a result of this comment.

Comment 4:

Many commenters requested a public meeting to discuss their concerns and indicated that they had not received a meeting during the initial permit process five years ago. They indicated that they do not want OAQ to allow this company to expand.

Response to Comment 4:

IDEM OAQ understands that there were concerns and questions regarding this permit and consequently held a public meeting on September 2, 2010 to allow concerned citizens to express their concerns. During the initial permit process, IDEM OAQ did hold a public meeting on November 30, 2005 at the Clark County Building, Room 308, 501 Court Street, Jeffersonville, Indiana.

The permit application for the renewal of MAC Construction's operating permit indicated no plans to expand its operation. This renewal is to allow MAC Construction to continue to operate its plant. No changes were made as a result of this comment.

Comment 5:

Many commenters stated that they did want IDEM OAQ to require MAC Construction to install and maintain permanent air quality monitoring systems in all directions between the plant and any residential area with regular reporting requirements.

Response to Comment 5:

IDEM OAQ understand the concerns, but disagrees with the request. There is an existing air monitor for PM10 located 2.2 kilometers south-southwest of the plant at 719 Walnut Street, Jeffersonville, Indiana. Additionally, the permit requires periodic testing, visible emissions notations, parametric monitoring, pollution controls, and reporting and recordkeeping by the source to ensure compliance. IDEM OAQ feels that these requirements are sufficient to ensure compliance to the standards without the use of monitoring equipment. IDEM has no authority to require MAC Construction to install ambient air quality monitors. IDEM maintains an air quality monitoring network across Indiana. IDEM's monitoring network is described at <http://www.in.gov/idem/4116.htm> on IDEM's website. A network review is conducted annually to see if any changes need to be made in the network. IDEM's 2011 network plan is available at <http://www.in.gov/idem/5342.htm> on IDEM's website. No changes were made as a result of this

comment.

Comment 6:

Several commenters asked about the definition of an "Affected Party" which was noted on the IDEM OAQ Mailing Sheet. They questioned why there were some affected parties on the list did not live in the area affected by this permit action.

Response to Comment 6:

Permit actions and all related documents are considered public information and anyone can request in writing to be notified of any permit action requests for any permit anywhere in the state. Anyone requesting to be added to a permit mailing list is designated as an "affected party". No changes were made as a result of this comment.

Comment 7:

One commenter stated that the Fugitive Dust Control Plan in the original permit stated that MAC Construction would pave the roads at the plant, but the Fugitive Dust Control Plan in the renewal permit stated that the company would not pave the roads.

Response to Comment 7:

In the original Fugitive Dust Control Plan, the company stated that the main road and other traffic areas on the asphalt plant site would be paved. MAC Construction has paved all of the roads on its property. Additionally, half of the roads leading to the plant across the quarry property are paved as well. IDEM has no authority to require that roads outside of MAC Construction's property be paved. In the revised Fugitive Dust Control Plan, attached to the renewal permit, the company states that it has paved the roads on its site, states that it has constructed a 25-foot high earthen berm, and that it has installed dust suppression sprinkler systems on its aggregate bins, all of which are designed to help keep the dust from leaving the property. Although these controls were initially voluntarily installed by the company, they are now part of the permit, and, as such, are enforceable.

Comment 8:

One commenter stated that MAC Construction is late on its required stack testing as required in its current permit, and requested IDEM to take action.

Response to Comment 8:

The current permit was issued January 20, 2006 and authorized MAC Construction to begin construction on its plant and authorized MAC to operate its facility after construction. The permit required stack testing within 60 days after its initial start-up and no later than 180 days after achieving full production. The permit also requires the testing to be repeated once every five (5) years from the date of the last valid compliance demonstration. MAC Construction completed its testing on May 1, 2006, which was well within the compliance determination requirements stipulated in the permit. The results of the testing showed the criteria pollutants tested were within the guidelines and limits in the permit. Therefore, based on the date of the last valid compliance demonstration of May 1, 2006, the source must retest no later than May 1, 2011. The files may be seen through the following link: <http://www.in.gov/idem/6551.htm>. No changes were made as a result of this comment.

Comment 9:

One commenter stated that, according to Condition B.4, Enforceability [326 IAC 2-8-6] in the proposed permit, the terms and conditions of the permit are enforceable by IDEM, the Environmental Agency, and by citizens in accordance with the Clean Air Act, and asked if it was true that a private citizen could enforce this permit.

Response to Comment 9:

As set out in 326 Indiana Administrative Code 2-8-6(b), pursuant to 42 United States Code Section 7604, any citizen may initiate a lawsuit against a source that violates a term or condition of its FESOP. Such lawsuits are referred to as citizens suits. Before such a lawsuit can be initiated, a notice of intent to file the lawsuit must be provided to the source believed to be violating its requirements, to IDEM's Commissioner, and to U.S. EPA. Those wishing to bring a citizens suit must do so on their own or through an attorney that they hire.

No changes were made as a result of this comment.

The following comments were received from the U.S. Environmental Protection Agency (EPA), Region 5 Office:

Comment 1:

On page 7 of the TSD, (a)(1) limits the amount of asphalt that may be processed in a year. Just for clarification, is the amount of slag used in the asphalt included in this amount or in addition to this amount?

Response to Comment 1:

The amount of asphalt that may be produced is the total asphalt production limit, including all ingredients. Slag is an ingredient of the production and is restricted to the amount shown in the TSD and the Permit. The amount of slag used is included in the overall production limit. No changes were made as a result of this comment.

Comment 2:

On page 7 of the TSD, (a)(3), the PM10 emission limit has been changed from 0.047 lbs/ton to 0.172 lbs/ton of asphalt produced. Please explain this change.

Response to Comment 2:

In order to accommodate potential future business growth, the source requested to increase its overall PM10 limits to just below the statutory thresholds. The new level, combined with the overall annual production limit, will continue to keep the total emissions for PM10 below the threshold levels. No changes were made as a result of this comment.

Comment 3:

On page 7 of the TSD, (a)(7) gives an emission limitation for SO₂ when using slag. Is this emission limit enough to ensure that the emissions are below 100 tons per year? There is not much margin for safety.

Response to Comment 3:

In order to ensure that total SO₂ emissions levels stay within the threshold limits, the permit limits each component of SO₂ emissions, as follows:

- (a) Overall SO₂ limit of 100 tons per year;
- (b) Sulfur content limit of 0.5% for No. 6 Fuel Oil used;
- (c) Limited usage of No. 6 Fuel Oil used per year;
- (d) Sulfur content limit of 0.5% for No. 4 Fuel Oil used;
- (e) Limited usage of No. 4 Fuel Oil used per year;
- (f) Sulfur content limit of 0.47% for Waste Oil used;
- (g) Limited usage of Waste Oil used per year;
- (h) Sulfur content limit of 1.5% for slag used;
- (i) Limited slag usage per year.

The source is required to report quarterly on every item listed above and are included in the Reporting and Recordkeeping Requirements in the permit. Compliance with these limits shall limit the overall source-wide SO₂ emissions to less than 100 tons per year. No changes were made as a result of this comment.

Comment 4:

Appendix A.1, Unlimited Emissions Calculations, indicates that the SO₂ limitation of 0.54 lb/ton was based upon the testing of another facility, using slag content of 1.1%. If testing shows that the facility cannot meet its emissions limitation using 1.5% sulfur content, how will that be addressed?

Response to Comment 4:

Appendix A.1, Page 4 shows the calculation method for calculating the unlimited emissions for the slag usage. The footnote indicates that an emission factor of 0.54 lb/ton is based on testing at another facility using slag content of 1.1%; however the footnote continues to state that calculations for this permit were based on an emission factor of 0.74 lb/ton, which relates to a sulfur content limit of 1.5% by weight. This safety factor was requested by the source to ensure compliance.

Additionally, the draft permit that was on public notice included a testing requirement in the permit that was not in the original permit that requires testing and reporting to OAQ within 180 days when slag is used, in order to demonstrate compliance with this limit. Reporting requirements are included and OAQ will observe and certify the testing results in order to ensure compliance. Since there is consistency with the slag used, only one stack test is required. No changes were made as a result of this comment.

Comment 5:

Is there a limit to how much slag can be added to a single batch of asphalt? Does more slag equate to higher SO₂ emissions? How to test "worst case scenario"?

Response to Comment 5:

The limit is an annual usage limit and there is no restriction in the permit on how much slag can be used in a single batch. The process limits itself on the amount of slag used per batch from a product quality standpoint. From a testing standpoint, the limit is a pound-per-ton limit. Testing protocol is such that the amount of slag used during the testing is observed and recorded, and the emissions are measured in pounds and compared to tons used during the testing and a pound per ton is calculated and compared to the limit to determine compliance with the limit.

Therefore, there is no "worst case scenario". No changes were made as a result of this comment.

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) Condition D.1.1 of Section D.1 contains a typographical error that IDEM has decided to correct. Condition D.1.1 shows reference 326 IAC 6.5-7-18 to describe the emissions limit for particulate matter for the dryer/mixer to be 0.04 grains per dry standard cubic foot. The correct reference is 326 IAC 6.5-1-2(a), and the correct emissions limit for particulate matter for the dryer/mixer is 0.03 grains per dry standard cubic foot. This corrected limit and reference is the same as in the existing permit. The permit has been changed as follows:

D.1.1 Particulate Matter (PM) ~~[326 IAC 6.5-7-18]~~ **[326 IAC 6.5-1-2(a)]** ~~[326 IAC 2-2]~~

Pursuant to ~~326 IAC 6.5-7-18~~ **326 IAC 6.5-1-2(a)** (Particulate Matter Limitations), particulate emissions from the dryer/mixer shall not exceed ~~0.04~~ **0.03** gr/dscf.

IDEM Contact

- (a) Questions regarding this proposed FESOP Renewal can be directed to Jack Harmon at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-4228 or toll free at 1-800-451-6027 extension 3-4428.
- (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

Appendix A.1
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Appendix A.1
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019-28936-05282

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Pat Coyle (via email) No address given

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit
Renewal

Source Background and Description

Source Name:	MAC Construction and Excavating, Inc.
Source Location:	1417 Quarry Road, Jeffersonville, Indiana 47130
County:	Clark
SIC Code:	2951
Permit Renewal No.:	F019-28936-05282
Permit Reviewer:	Jack Harmon

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from MAC Construction and Excavating, Inc. relating to the operation of a stationary drum mix asphalt plant. On February 2, 2010, MAC Construction and Excavating, Inc. submitted an application to the OAQ requesting to renew its operating permit. MAC Construction and Excavating, Inc. was issued a FESOP (F069-21746-05282) on January 2, 2006, and an Administrative Amendment No.: 069-22794-05282 on March 27, 2006. FESOP F069-21746-05282, issued on January 2, 2006, was for a portable drum mix asphalt plant. However, the plant has never relocated and, according to the source, has no plans to relocate. Pursuant to 326 IAC 2-1.1(15), a source must apply to relocate its portable plant at least once in a permit term in order to continue its portability status. Therefore, pursuant to 326 IAC 2-1.1-1(15), this source shall be classified as a stationary for this point forward. This facility uses slag in its aggregate mix. The facility does not produce cold mix asphalt.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

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

- (a) One (1) drum mix asphalt plant, identified as Unit ID ES1, with a maximum rated throughput capacity of 400 tons per hour, equipped with one (1) 100 million British thermal units per hour (MMBtu/hr) fuel oil-fired burner, using either No. 4 fuel oil, No. 6 fuel oil, or waste oil, with particulate emissions controlled by one (1) baghouse, identified as CD-1, exhausting at one (1) stack (Stack ID: EP1). This drum mix unit uses slag in its aggregate mix, and does not produce cold mix.

Under NSPS 40 CFR Part 60 Subpart I, this source is considered an affected source.

- (b) One (1) 30,000 gallon split fuel tank, consisting of one (1) 19,500 gallon storage reservoir, identified as Tank 1a, and one (1) 10,500 gallon storage reservoir, identified as Tank 1b, with both storage reservoirs separated by a permanent wall divider;
- (c) One (1) 20,000 gallon liquid asphalt cement storage tank, identified as Tank 2;
and
- (d) One (1) 15,000 gallon liquid asphalt storage tank, identified as Tank 3.

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

- (a) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight including:
 - (1) One (1) No. 2 distillate fuel oil-fired hot oil heater, rated at 1.2 MMBtu per hour; exhausting through stack EP2.
- (b) VOC and HAP storage containers storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2(e)(2)]
- (d) Structural steel and bridge fabrication activities using 80 tons or less of welding consumables.
- (e) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (f) Aggregate and RAP storage piles.

Emission Units and Pollution Control Equipment Removed From the Source

There have been no emission units removed from this source.

Existing Approvals

Since the issuance of the FESOP 019-21746-05282 on January 20, 2006, the source has been operating under the following additional approvals:

- (a) Administrative Amendment No. 019-22794-05282 issued on March 27, 2006.

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

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Clark County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Attainment effective October 23, 2001, for the 1-hour ozone standard for the Louisville area, including Clark County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standard (NAAQS) for purposes of 40 CFR Part 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for PM2.5.	

- (a) **Ozone Standards**
 Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) 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 NO_x emissions are considered when evaluating the rule applicability relating to ozone. Clark County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM_{2.5}**
 Clark County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. On May 8, 2008, U.S. EPA promulgated specific New Source Review rules for PM_{2.5} emissions. These rules became effective on July 15, 2008. Therefore, direct PM_{2.5} and SO₂ emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.
- (c) **Other Criteria Pollutants**
 Clark County has been classified as nonattainment in Indiana for PM2.5. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

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 (NSPS 40 CFR Part 60, Subpart I); therefore fugitive emissions, from the affected facility to which the New Source Performance Standard is applicable, are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

This source did not relocate during the permit term. Therefore, this source is now considered a stationary source. The source ID will remain 019-05282 to ensure the history of the source is maintained in IDEM's tracking systems.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Process/ Emission Unit	Potential To Emit (tons/year)							
	PM	PM ₁₀ *	PM _{2.5}	SO ₂	NO _x	VOC	CO	Total HAPs
Dryer Fuel Combustion, with baghouse (worst case)	100.11	79.78	79.78	245.59	147.04	3.13	15.64	26.7 (23.54 HCl)
Dryer/Mixer Process, with baghouse	49056.1	11388.0	11388.0	101.62	96.36	56.06	227.76	18.68 (5.43 formaldehyde)
Dryer, 46P, Slag Processing, with baghouse	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00
Hot Oil Heater Combustion (worst case)	0.08	0.12	0.12	2.67	0.75	0.01	0.19	0.003
Worst Case Emissions	49056.1	11388.12	11388.0	249.60	147.79	56.07	227.95	26.47 (23.54 HCl)
Fugitive Emissions								
Asphalt Loadout, Silo Filling, and Yard	1.94	1.94	1.94	0.00	0.00	30.01	5.05	0.50 (0.16 formaldehyde)
Material Storage Piles	0.62	0.22	0.22	0.00	0.00	0.00	0.00	0.00
Material Processing and Handling	11.86	5.61	0.85	0.00	0.00	0.00	0.00	0.00
Material Crushing, Screening, and Conveying	55.59	20.31	20.31	0.00	0.00	0.00	0.00	0.00
Paved and Unpaved Roads	124.32	31.68	3.17	0.00	0.00	0.00	0.00	0.00
Cold Mix Asphalt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gasoline Fuel Transfer and Dispensing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volatile Organic Liquid Storage Vessels	0.00	0.00	0.00	0.00	0.00	negl	0.00	negl
Total Fugitive Emissions	32.41	12.42	9.90	0.00	0.00	74.52	1.05	0.20
Total Emissions	49250.4	11447.88	2654.61	249.60	147.79	86.08	233.0	26.98 (23.54 HCl)
PSD Threshold	250.0	250.0	250.0	250.0	250.0	250.0	250.0	NA
Title V Threshold	NA	100.0	100.0	100.0	100.0	100.0	100.0	10 for single HAP and 25 for total HAPs
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 pollutant".								

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10, PM2.5, SO2, NOx, and CO is equal to or greater than 100 tons per year. However, the Permittee has agreed to limit the source's PM10, PM2.5, SO2, NOx, and CO emissions to less than Title V levels, therefore the Permittee will be issued a FESOP Renewal.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. However, the Permittee has agreed to limit the source's single HAP emissions and total HAP emissions below Title V levels. Therefore, the Permittee will be issued a FESOP Renewal.

Potential to Emit After Issuance

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

Process/ Emission Unit	Potential To Emit After Issuance (tons/year)							
	PM	PM ₁₀ *	PM _{2.5}	SO ₂	NOx	VOC	CO	Total HAPs
Dryer Fuel Combustion, with baghouse (worst case)	24.68	19.67	19.67	95.10	59.60	0.77	6.34	6.59 (5.80 HCl)
Dryer/Mixer Process, with baghouse	195.38	82.42	91.48	27.84	26.40	15.36	62.40	5.12 (1.49 formaldehyde)
Dryer, 46P, Slag Processing, with baghouse	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00
Hot Oil Heater Combustion (worst case)	0.07	0.12	0.12	2.55	0.72	0.03	0.42	0.01
Worst Case Emissions	195.45	82.54	91.60	99.00	60.32	15.39	62.82	6.61 (5.80 HCl)
Fugitive Emissions								
Asphalt Loadout, Silo Filling, and Yard	0.53	0.53	0.53	0.00	0.00	8.22	1.38	0.14 (0.04 formaldehyde)
Material Storage Piles	0.62	0.22	0.22	0.00	0.00	0.00	0.00	0.00
Material Processing and Handling	3.10	1.47	0.22	0.00	0.00	0.00	0.00	0.00
Material Crushing, Screening, and Conveying	15.23	5.56	5.56	0.00	0.00	0.00	0.00	0.00
Paved and Unpaved Roads	34.06	8.68	0.87	0.00	0.00	0.00	0.00	0.00
Cold Mix Asphalt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gasoline Fuel Transfer and Dispensing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volatile Organic Liquid Storage Vessels	0.00	0.00	0.00	0.00	0.00	negl	0.00	negl
Total Fugitive Emissions	53.55	16.46	7.40	0.00	0.00	8.22	1.38	0.14
Total Emissions	249.00	99.00	99.00	99.00	60.32	23.61	64.21	6.74 (5.80 HCl)
PSD Threshold	250.0	250.0	NA	250.0	250.0	250.0	250.0	NA
Title V Threshold	NA	100.0	100.0	100.0	100.0	100.0	100.0	10 for single HAP and 25 for total HAPs
Emission Offset Threshold	NA	NA	100.0	NA	NA	NA	NA	

negl. = negligible

* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated pollutant".

- (a) This existing stationary source is not major for Emission Offset and Nonattainment NSR because the emissions of the nonattainment pollutant, PM_{2.5}, are less than one hundred (<100) tons per year.

Federal Rule Applicability

Compliance Assurance Monitoring (CAM)

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

New Source Performance Standards (NSPS)

- (a) The drum mix asphalt plant, identified as ES1, is subject to the New Source Performance Standard for Hot Mix Asphalt Facilities (40 CFR 60, Subpart I), which is incorporated by reference as 326 IAC 12, because it meets the definition of a hot mix asphalt facility pursuant to the rule and it was constructed after June 11, 1973. This rule limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf) and also limits visible emissions to 20% opacity. The source will comply with this rule by using the baghouse to limit particulate matter emissions to less than 0.04 gr/dscf.

The dryer/mixer is subject to the following provisions of 40 CFR 60, Subpart I:

- (1) 40 CFR 60.90.

- (2) 40 CFR 60.91.
- (3) 40 CFR 60.92, and
- (4) 40 CFR 60.93.

This Subpart is shown in its entirety in Attachment B of the permit.

- (b) This source is not subject to 40 CFR 60, Subpart OOO, Standards for Nonmetallic Mineral Processing Plants because the facility does not perform crushing or milling activities at the plant. Therefore, the requirements of 40 CFR 60, Subpart OOO do not apply.
- (c) This source is not subject to 40 CFR 60, Subpart UU, Standards for Asphalt Processing and Asphalt Roofing Facilities, because the facility does not prepare asphalt roofing materials, nor has blowing stills, at the plant. Therefore, the requirements of 40 CFR 60, Subpart UU do not apply.
- (d) This source is not subject to 40 CFR 60, Subpart Kb, Standards for VOC Liquid Storage Containers, because the storage tanks storing liquid asphalt have less than 39,000 gallon capacity and have a maximum true vapor pressure of less than fifteen (15) kPa, at the plant. Therefore, the requirements of 40 CFR 60, Subpart Kb do not apply.
- (e) There are no other New Source Performance Standards applicable to this source.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) This source is not subject to 40 CFR 63, Subpart LLLLL, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asphalt Processing and Asphalt Roofing Facilities, because the facility does not prepare asphalt roofing materials, nor has blowing stills, at the plant. Therefore, the requirements of 40 CFR 63, Subpart UU do not apply.
- (b) This source is not subject to 40 CFR 63, Subpart AAAAAAA, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asphalt Processing and Asphalt Roofing Facilities, because the facility does not prepare asphalt roofing materials, nor has blowing stills, at the plant. Therefore, the requirements of 40 CFR 63, Subpart AAAAAAA do not apply.
- (c) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this permit renewal.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

PSD applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.

326 IAC 2-3 (Emission Offset) and 326 IAC 2-1.1-5 (Nonattainment NSR)

Emission Offset applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The unlimited potential to emit of HAPs from the entire source is greater than ten (10) tons per year for any single HAP and/or greater than twenty-five (25) tons per year of a combination of HAPs. However, the source shall limit the potential of HAPs to less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of any combination of HAPs. Therefore, the source is not subject to the requirements of 326 IAC 2-4.1.

326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake or Porter counties, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, the following limits shall apply:

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

- (1) The amount of asphalt processed shall not exceed 960,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (2) The amount of slag used shall not exceed 3,634 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. This is a new requirement, since the source is now using slag in its aggregate mix.
- (3) PM10 emissions from the dryer/mixer shall not exceed 0.172 pounds per tons of asphalt produced. This was changed from 0.047 lbs/ton.
- (4) PM2.5 emissions from the dryer/mixer shall not exceed 0.191 pounds per ton of asphalt produced.
- (5) CO emissions from the dryer/mixer shall not exceed 0.130 pounds per ton of asphalt produced.
- (6) VOC emissions shall not exceed 0.032 pounds per ton of asphalt produced.
- (7) SO2 emissions from the use of slag in the dryer/mixer shall not exceed 0.74 pounds SO2 per ton of slag processed. This is a new requirement due to the use of slag.
- (8) The sulfur content of the blast furnace slag shall not exceed 1.5% by weight.

Compliance with these limits, combined with the limited potential to emit PM10, PM2.5, SO2, and CO from all other emission units, shall limit source-wide potential to emit of PM10, PM2.5, SO2, and CO emissions to less than 100 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, compliance with these limits will render 326 IAC 2-2 (Prevention of Significant Deterioration) (PSD)), 326 IAC 2-7 (Part 70), and 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable. Note: the previous permit expressed the limit in terms of pound per hour. These are now changed as stated above.

(b) 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:

- (1) Fuel Content Specifications
 - (i) The sulfur content of the No. 6 fuel oil used shall not exceed five-tenths percent (0.50%) by weight.
 - (ii) The sulfur content of the No. 4 fuel oil shall not exceed five-tenths percent (0.5%) by weight.

- (iii) The sulfur content of the waste oil shall not exceed forty-seven hundredths percent (0.47%) by weight.
 - (iv) The HCl emissions shall not exceed 0.007524 pounds of HCl per gallon of waste oil used.
 - (v) The chlorine content of the waste oil shall not exceed one hundred fourteen thousandths percent (0.114%) by weight.
- (2) Pursuant to 326 IAC 2-8-4, the SO₂ emissions from the mixer/dryer burner shall be limited as follows:
- (i) The usage of No. 6 fuel oil and No. 6 fuel oil equivalents for the dryer burner shall not exceed 2,422,954 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This is changed from 2,477,197 gallons per twelve (12) consecutive month period.

For the purpose of determining compliance with this limit based on SO₂ emissions, the following shall apply:

- (i) every 1,000 gallons of No. 4 fuel oil burned in the aggregate dryer burner shall be equivalent to 952.4 gallons of No. 6 fuel oil based on SO₂ emissions and a maximum No. 4 fuel oil sulfur content of 0.5% such that the total gallons of No. 6 fuel oil and No. 6 fuel oil equivalent input does not exceed the limit specified;
- (ii) every 1,000 gallons of waste oil burned in the aggregate dryer burner shall be equivalent to 860.0 gallons of No. 6 fuel oil based on SO₂ emissions and a maximum waste oil sulfur content of 0.47% such that the total gallons of No. 6 fuel oil and No. 6 fuel oil equivalent input does not exceed the limit specified.

Compliance with these limits, combined with the emissions from all other units at this source, shall limit the source-wide total potential to emit 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.

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

The source shall not use cutback asphalt liquid binder nor produce cold mix asphalt. Any change or modification that would cause the source to use cutback asphalt or begin cold mix production shall require prior approval from IDEM, OAQ.

326 IAC 5-1 (Opacity Limitations)

This source is located in Jeffersonville Township, in Clark County. Therefore, 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 the permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (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.

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4-1, the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is subject to 326 IAC 6-5 because the fugitive dust sources at this source have the potential to emit particulate emissions greater than twenty-five (25) tons per year. Pursuant to 326 IAC 6-5, fugitive particulate matter emissions shall be controlled according to the fugitive Dust Control Plan, which is included as Attachment A of the permit.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

The aggregate mixing and drying operation is not subject to the requirements of 326 IAC 6-3-2. This rule does not apply if the limitation established in the rule is less stringent than applicable limitations in 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset), 326 IAC 11, 326 IAC 12, or 326 IAC 20. Since the applicable PM emission limits established by 326 IAC 12, 40 CFR 60, Subpart I and the former 326 IAC 6-1-2 under 40 CFR 52, Subpart P are less than the PM limit that would be established by 326 IAC 6-3-2 (66.31 pounds per hour, the more stringent limits apply and the limit pursuant to 326 IAC 6-3-2 does not apply to the aggregate mixing and drying operation.

326 IAC 6.5-1-2 (formerly 326 IAC 6-1-2) (Particulate Limitations)

The particulate matter emissions from the aggregate mixing and drying operation are subject to the requirements of 326 IAC 6.5-1-2(a) (Particulate matter limitations except Lake County) (formerly 326 IAC 6-1-2) because this source is located in Clark County, which is one of the counties listed in 326 IAC 6.5-1-1(a) and potential particulate matter (PM) emissions exceed 100 tons per year. Pursuant to 326 IAC 6.5-1-2(a), PM emissions from the aggregate mixing and drying operation (Emission Unit ID ES1) are limited to 0.03 grains per dry standard cubic foot (gr/dscf). This limitation is more stringent than the additional applicable requirement of 0.04 grains per dry standard cubic foot pursuant to 326 IAC 12 (New Source Performance Standards) and 40 CFR 60.90 (Subpart I - Standards of Performance for Hot Mix Asphalt Facilities). Therefore, compliance with 326 IAC 6.5-1-2(a) will satisfy the grain loading limit of 0.04 gr/dscf pursuant to 326 IAC 12 and 40 CFR 60.90 to 60.93, Subpart I. The source will comply with this rule by using a baghouse to limit particulate matter emissions to less than 0.03 gr/dscf.

326 IAC 7-1.1-2 (Sulfur Dioxide Emissions Limitations)

This source is subject to the requirements of 326 IAC 7-1.1 because the potential to emit (PTE) of SO₂ is greater than the applicable level of 25 tons per year.

- (a) Pursuant to this rule, the sulfur dioxide emissions from the 100 MMBtu/hr dryer burning No. 6 residual fuel oil or waste oil shall be limited to 1.6 pounds per MMBtu heat input. This equates to a fuel oil sulfur content limit of 1.5%. Therefore, the sulfur content of the fuel must be less than or equal to 1.5% in order to comply with this rule. The source will comply with this rule by using No. 6 residual fuel oil or waste oil with a sulfur content of 0.5% or less.
- (b) The sulfur dioxide emissions from the 100 MMBtu/hr dryer burning distillate oil shall be limited to 0.5 lb/MMBtu heat input. This equates to a fuel oil sulfur content limit of 0.5%. Therefore, the sulfur content of the fuel must be less than or equal to 0.5% in order to comply with this rule. The source will comply with this rule by using No. 6 fuel oil (which can be either distillate oil or a mixture of distillate and residual oil) with a sulfur content of 0.5% or less.

- (c) The 1.2 MMBtu/hr hot oil heater is not subject to the requirements of this rule because potential SO₂ emissions from this unit are less than 25 tons per year.

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

This source is subject to 326 IAC 7-2-1 (Reporting Requirements). This rule requires the source to submit to the Office of Air Quality upon request records of sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates based on a calendar-month average.

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

The dryer/mixer process facility has the potential to emit VOC greater than twenty-five (25) tons per year; however, the source has opted to take a limit to keep its VOC emissions to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving)

This source does not use cutback asphalt. Therefore, the requirements of 326 IAC 8-5-2 do not apply. Any change or modification that would cause the source to begin using cutback asphalt or to produce cold mix asphalt shall require prior approval from IDEM, OAQ.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

On and after October 1, 1995, this rule applies to stationary vessels used to store volatile organic liquid (VOL) that are located in Clark, Floyd, Lake, or Porter County. The one (1) 30,000 gallon split fuel tank, consisting of one (1) 19,500 gallon storage tank, identified as Tank 1a, and one (1) 10,500 gallons storage tank, identified as Tank 1b, the 20,000 gallon storage tank, identified as Tank 2, and the 15,000 gallon storage tank, identified as Tank 3, at this source are subject to this rule because the source is located in Clark County and they are used to store a VOL. Pursuant to 326 IAC 8-9-1(b), stationary vessels with a capacity of less than thirty-nine thousand (39,000) gallons are subject to the reporting and record keeping provisions of section 6(a) and 6(b) of this rule and are exempt from all other provisions of this rule. Pursuant to 326 IAC 8-9-6(a), the owner or operator of each vessel subject to this rule shall keep all records required by this section for three (3) years unless specified otherwise. Records required by subsection (b) shall be maintained for the life of the vessel. Pursuant to 326 IAC 8-9-6(b), the owner or operator of each vessel to which section 1 of this rule applies shall maintain a record and submit to the department a report containing the following information for each vessel:

- (1) The vessel identification number.
- (2) The vessel dimensions.
- (3) The vessel capacity.

Compliance Determination and Monitoring Requirements

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

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

Testing Requirements

- (a) This source is subject to 40 CFR Part 60, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities), and shall comply with the particulate matter (PM) and opacity compliance testing requirements of the rule. OAQ has also required PM10 testing to demonstrate FESOP compliance.
- (b) In order to ensure compliance with the PM limit, the Permittee shall perform PM testing of the dryer/mixer utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. The most recent valid compliance test was June 11, 2003. The source was scheduled to test August 25, 2009, but no information is available. June 11, 2003 remains the most recent valid compliance demonstration.
- (c) In order to demonstrate compliance with the PM2.5 and PM10 limits, the Permittee shall perform PM2.5 and PM10 testing on the dryer/mixer within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U.S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008, or five (5) years from the most recent valid compliance stack test, whichever is later. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.
- (d) In order to demonstrate compliance with the SO2 limits, due to the usage of slag, the Permittee shall perform testing on Stack EP-1 within 180 days of the issuance of the permit when slag is being used, or from the time slag is first used, whichever is earlier. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Requirements

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

<u>Emission Unit/Control</u>	<u>Operating Parameters</u>	<u>Frequency</u>
Stack EP1	Visible Emissions Notation	Once per day
Baghouse CD-1	Pressure Drop (Normal 2.0 - 6.0)	Once per day

These monitoring conditions are necessary because the baghouse for the aggregate dryer, mixer, and burner must operate properly to ensure compliance with 40 CFR 60.90, Subpart I, 326 IAC 2-8 (FESOP), and 326 IAC 6.5-1-2 (formerly 326 IAC 6-1-2) and to ensure compliance with the PM and PM10 emission limits so that the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-1.1-5 (Nonattainment NSR) do not apply.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

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 February 2, 2010.

Conclusion

The operation of this stationary drum mix asphalt plant shall be subject to the conditions of the attached FESOP Renewal No. 019-28936-05282.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Jack Harmon at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCM 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-4228 or toll free at 1-800-451-6027 extension 3-4228.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

Asphalt Plant Maximum Capacity

Maximum Hourly Asphalt Production =	400	ton/hr								
Maximum Annual Asphalt Production =	3,504,000	ton/yr								
Maximum Annual Slag Usage =	3,634	ton/yr	1.5	% sulfur						
Maximum Dryer Fuel Input Rate =	100.0	MMBtu/hr								
Natural Gas Usage =	0	MMCF/yr								
No. 2 Fuel Oil Usage =	0	gal/yr, and	0.50	% sulfur						
No. 4 Fuel Oil Usage =	6,257,143	gal/yr, and	0.50	% sulfur						
Residual (No. 5 or No. 6) Fuel Oil Usage =	6,257,143	gal/yr, and	0.50	% sulfur						
Propane Usage =	0	gal/yr, and	0.00	gr/100 ft3 sulfur						
Butane Usage =	0	gal/yr, and	0.00	gr/100 ft3 sulfur						
Used/Waste Oil Usage =	6,257,143	gal/yr, and	0.47	% sulfur	0.50	% ash	0.114	% chlorine,	0.010	% lead
Diesel Engine Oil Usage =	0	gal/yr, and								
Unlimited PM Dryer/Mixer Emission Factor =	28.0	lb/ton of asphalt production								
Unlimited PM10 Dryer/Mixer Emission Factor =	6.5	lb/ton of asphalt production								
Unlimited PM2.5 Dryer/Mixer Emission Factor =	1.5	lb/ton of asphalt production								
Unlimited VOC Dryer/Mixer Emission Factor =	0.032	lb/ton of asphalt production								
Unlimited CO Dryer/Mixer Emission Factor =	0.13	lb/ton of asphalt production								
Unlimited Slag SO2 Dryer/Mixer Emission Factor =	0.74	lb/ton of slag processed								

Unlimited/Uncontrolled Emissions

Process Description	Unlimited/Uncontrolled Potential to Emit (tons/year)									
	Criteria Pollutants							Hazardous Air Pollutants		
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst Case HAP	
Ducted Emissions										
Dryer Fuel Combustion (worst case)	100.11	79.78	79.78	245.59	147.04	3.13	15.64	26.47	23.54	(hydrogen chloride)
Dryer/Mixer (Process)	49056.00	11388.00	2628.00	101.62	96.36	56.06	227.76	18.68	5.43	(formaldehyde)
Dryer/Mixer Slag Processing	0	0	0	1.34	0	0	0	0	0	
Hot Oil Heater Fuel Combustion (worst case)	0.08	0.12	0.12	2.67	0.75	0.01	0.19	0.003	0.002	(hexane)
Worst Case Emissions*	49056.08	11388.12	2628.12	249.60	147.79	56.07	227.95	26.47	23.54	(hydrogen chloride)
Fugitive Emissions										
Asphalt Load-Out, Silo Filling, On-Site Yard	1.94	1.94	1.94	0	0	30.01	5.05	0.50	0.16	(formaldehyde)
Material Storage Piles	0.62	0.22	0.22	0	0	0	0	0	0	
Material Processing and Handling	11.86	5.61	0.85	0	0	0	0	0	0	
Material Crushing, Screening, and Conveying	55.59	20.31	20.31	0	0	0	0	0	0	
Unpaved and Paved Roads (worst case)	124.32	31.68	3.17	0	0	0	0	0	0	
Cold Mix Asphalt Production	0	0	0	0	0	0.00	0	0.00	0.00	(xylenes)
Gasoline Fuel Transfer and 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	0	
Total Fugitive Emissions	194.33	59.76	26.48	0	0.00	30.01	5.05	0.50	0.00	(xylenes)
Totals Unlimited/Uncontrolled PTE	49250.40	11447.88	2654.61	249.60	147.79	86.08	233.00	26.98	23.54	(xylenes)

negl = negligible

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

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

Fuel component percentages provided by the source.

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

Company Name: **MAC Construction and Excavating Inc.**
 Source Address: **1417 Quarry Road, Jeffersonville, Indiana 47130**
 Permit Number: **019-28936-05282**
 Reviewer: **Jack Harmon**

The following calculations determine the unlimited/uncontrolled emissions created from the combustion of natural gas, fuel oil, propane, butane, or used/waste oil in the dryer/mixer at the source.

Maximum Capacity

Maximum Hourly Asphalt Production	=	400	ton/hr
Maximum Annual Asphalt Production	=	3,504,000	ton/yr
Maximum Fuel Input Rate	=	100	MMBtu/hr
Natural Gas Usage	=	0	MMCF/yr
No. 2 Fuel Oil Usage	=	0	gal/yr, and
No. 4 Fuel Oil Usage	=	6,257,143	gal/yr, and
Residual (No. 5 or No. 6) Fuel Oil Usage	=	6,257,143	gal/yr, and
Propane Usage	=	0	gal/yr, and
Butane Usage	=	0	gal/yr, and
Used/Waste Oil Usage	=	6,257,143	gal/yr, and
Diesel Engine Oil Usage	=	0	gal/yr, and

	=	0.50	% sulfur
	=	0.50	% sulfur
	=	0.50	% sulfur
	=	0.00	gr/100 ft3 sulfur
	=	0.00	gr/100 ft3 sulfur
	=	0.47	% sulfur
	=	0.50	% ash
	=	0.114	% chlorine
	=	0.010	% lead

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units)								Unlimited/Uncontrolled Potential to Emit (tons/yr)								Worse Case Fuel (tons/yr)	
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil (lb/kgal)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)	Diesel Engine (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/Waste Oil (tons/yr)	Diesel Engine (tons/yr)		
PM	1.9	2.0	7.0	7.815	0.5	0.6	32.0	43.4	0.00	0.00	21.90	24.45	0.000	0.000	100.11	0.00	100.11	
PM10/PM2.5	7.6	3.3	8.3	9.315	0.5	0.6	25.5	43.4	0.00	0.00	25.97	29.14	0.000	0.000	79.78	0.00	79.78	
SO2	0.6	71.0	75.0	78.5	0.000	0.000	69.1	40.6	0.00	0.00	234.64	245.59	0.000	0.000	216.15	0.00	245.59	
NOx	190	24.0	47.0	47.0	13.0	15.0	19.0	617.4	0.00	0.00	147.04	147.04	0.00	0.00	59.44	0.00	147.04	
VOC	5.5	0.20	0.20	0.28	1.00	1.10	1.0	49.00	0.00	0.00	0.63	0.88	0.00	0.00	3.13	0.00	3.13	
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	133.0	0	0.00	15.64	15.64	0.00	0.00	15.64	0.00	15.64	
Hazardous Air Pollutant																		
HCl								7.5								23.54		23.54
Antimony			5.25E-03	5.25E-03				negl			1.64E-02	1.64E-02				negl		1.6E-02
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03				1.1E-01	0.0E+00	0.00E+00	4.13E-03	4.13E-03			3.44E-01		3.4E-01	
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05				negl	0.0E+00	0.00E+00	8.70E-05	8.70E-05			negl		8.7E-05	
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04				9.3E-03	0.0E+00	0.00E+00	1.25E-03	1.25E-03			2.91E-02		2.9E-02	
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04				2.0E-02	0.0E+00	0.00E+00	2.64E-03	2.64E-03			6.26E-02		6.3E-02	
Cobalt	8.4E-05	6.02E-03	6.02E-03	6.02E-03				2.1E-04	0.0E+00		1.88E-02	1.88E-02			6.57E-04		1.9E-02	
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03				0.55	0.0E+00	0.00E+00	4.72E-03	4.72E-03			1.7E+00		1.72	
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03				6.8E-02	0.0E+00	0.00E+00	9.39E-03	9.39E-03			2.13E-01		0.21	
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04				negl	0.0E+00	0.00E+00	3.54E-04	3.54E-04					3.5E-04	
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02				1.1E-02	0.0E+00	0.00E+00	2.64E-01	2.64E-01			3.44E-02		0.264	
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04				negl	0.0E+00	0.00E+00	2.14E-03	2.14E-03			negl		2.1E-03	
1,1,1-Trichloroethane			2.36E-04	2.36E-04							7.38E-04	7.38E-04					7.4E-04	
1,3-Butadiene								5.47E-03							0.00E+00		0.0E+00	
Acetaldehyde								1.07E-01							0.00E+00		0.0E+00	
Acrolein								1.30E-02							0.00E+00		0.0E+00	
Benzene	2.1E-03		2.14E-04	2.14E-04				1.31E-01	0.0E+00		6.70E-04	6.70E-04					6.7E-04	
Bis(2-ethylhexyl)phthalate								2.2E-03							6.88E-03		6.9E-03	
Dichlorobenzene	1.2E-03							8.0E-07	0.0E+00						2.50E-06		2.5E-06	
Ethylbenzene			6.36E-05	6.36E-05							1.99E-04	1.99E-04					2.0E-04	
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				1.65E-01	0.0E+00	0.00E+00	1.03E-01	1.03E-01			0.00E+00		0.103	
Hexane	1.8E+00								0.00								0.000	
Phenol								2.4E-03							7.51E-03		7.5E-03	
Toluene	3.4E-03		6.20E-03	6.20E-03				5.73E-02	0.0E+00		1.94E-02	1.94E-02			0.00E+00		1.9E-02	
Total PAH Haps	negl		1.13E-03	1.13E-03				3.9E-02	2.35E-02	negl	3.54E-03	3.54E-03			1.22E-01	0.00E+00	1.2E-01	
Polycyclic Organic Matter		3.30E-03							0.00E+00								0.0E+00	
Xylene			1.09E-04	1.09E-04				3.99E-02			3.41E-04	3.41E-04				0.00E+00	3.4E-04	
Total HAPs									0.00	0.00	0.45	0.45	0	0	26.08	0.00	26.47	

Methodology

Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
 Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.140 MMBtu]
 Propane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0905 MMBtu]
 Butane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0974 MMBtu]
 Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [ton/2000 lbs]
 All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] * [Emission Factor (lb/gal)] * [kgal/1000 gal] * [ton/2000 lbs]
 Sources of AP-42 Emission Factors for fuel combustion:

- Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4
- No. 2, No. 4, and No.6 Fuel Oil: AP-42 Chapter 1.3 (dated 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11
- Propane and Butane: AP-42 Chapter 1.5 (dated 7/08), Tables 1.5-1 (assuming PM = PM10)
- Waste Oil: AP-42 Chapter 1.11 (dated 10/96), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5
- Diesel Engine Oil: AP-42 Chapter 3.3 (dated 10/96), Tables 3.3-1 and 3.3-2

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

Abbreviations

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

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

**Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon**

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

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

Criteria Pollutant	Uncontrolled Emission Factors (lb/ton)			Unlimited/Uncontrolled Potential to Emit (tons/yr)			Worse Case PTE
	Drum-Mix Plant (dryer/mixer)			Drum-Mix Plant (dryer/mixer)			
	Natural Gas	No. 2 Fuel Oil	Waste Oil	Natural Gas	No. 2 Fuel Oil	Waste Oil	
PM*	28	28	28	49056	49056	49056	49056
PM10*	6.5	6.5	6.5	11388	11388	11388	11388
PM2.5*	1.5	1.5	1.5	2628	2628	2628	2628
SO2**	0.0034	0.011	0.058	6.0	19.3	101.6	101.6
NOx**	0.026	0.055	0.055	45.6	96.4	96.4	96.4
VOC**	0.032	0.032	0.032	56.1	56.1	56.1	56.1
CO***	0.13	0.13	0.13	227.8	227.8	227.8	227.8
Hazardous Air Pollutant							
HCl			2.10E-04			3.68E-01	0.37
Antimony	1.80E-07	1.80E-07	1.80E-07	3.15E-04	3.15E-04	3.15E-04	3.15E-04
Arsenic	5.60E-07	5.60E-07	5.60E-07	9.81E-04	9.81E-04	9.81E-04	9.81E-04
Beryllium	negl	negl	negl	negl	negl	negl	0.00E+00
Cadmium	4.10E-07	4.10E-07	4.10E-07	7.18E-04	7.18E-04	7.18E-04	7.18E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	9.64E-03	9.64E-03	9.64E-03	9.64E-03
Cobalt	2.60E-08	2.60E-08	2.60E-08	4.56E-05	4.56E-05	4.56E-05	4.56E-05
Lead	6.20E-07	1.50E-05	1.50E-05	1.09E-03	2.63E-02	2.63E-02	2.63E-02
Manganese	7.70E-06	7.70E-06	7.70E-06	1.35E-02	1.35E-02	1.35E-02	1.35E-02
Mercury	2.40E-07	2.60E-06	2.60E-06	4.20E-04	4.56E-03	4.56E-03	4.56E-03
Nickel	6.30E-05	6.30E-05	6.30E-05	0.11	0.11	0.11	0.11
Selenium	3.50E-07	3.50E-07	3.50E-07	6.13E-04	6.13E-04	6.13E-04	6.13E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	0.07	0.07	0.07	0.07
Acetaldehyde			1.30E-03			2.28	2.28
Acrolein			2.60E-05			4.56E-02	4.56E-02
Benzene	3.90E-04	3.90E-04	3.90E-04	0.68	0.68	0.68	0.68
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.42	0.42	0.42	0.42
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	5.43	5.43	5.43	5.43
Hexane	9.20E-04	9.20E-04	9.20E-04	1.61	1.61	1.61	1.61
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.08	0.08	0.08	0.08
MEK			2.00E-05			0.04	0.04
Propionaldehyde			1.30E-04			0.23	0.23
Quinone			1.60E-04			0.28	0.28
Toluene	1.50E-04	2.90E-03	2.90E-03	0.26	5.08	5.08	5.08
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.33	1.54	1.54	1.54
Xylene	2.00E-04	2.00E-04	2.00E-04	0.35	0.35	0.35	0.35

Total HAPs 18.68

Worst Single HAP 5.43 (formaldehyde)

Methodology

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

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-3, 11.1-7, 11.1-8, 11.1-10, and 11.1-12

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

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

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

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

Abbreviations

VOC - Volatile Organic Compounds

HAP = Hazardous Air Pollutant

HCl = Hydrogen Chloride

PAH = Polyaromatic Hydrocarbon

SO2 = Sulfur Dioxide

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

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

Maximum Annual Slag Usage* = ton/yr % sulfur

	Emission Factor (lb/ton)**	Unlimited Potential to Emit (tons/yr)
Criteria Pollutant	Slag Processing	Slag Processing
SO2	0.74	1.3

Methodology

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

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

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

Abbreviations

SO2 = Sulfur Dioxide

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

Company Name: MAC Construction and Excavating Inc.
Source Location: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

Maximum Hot Oil Heater Fuel Input Rate = 1.20 MMBtu/hr
 Natural Gas Usage = 0 MMCF/yr
 No. 2 Fuel Oil Usage = 75,086 gal/yr, and 0.50 % sulfur

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		Worse Case Fuel (tons/yr)
	Hot Oil Heater		Hot Oil Heater		
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	
PM	1.9	2.0	0.000	0.075	0.08
PM10/PM2.5	7.6	3.3	0.000	0.124	0.12
SO2	0.6	71.0	0.000	2.666	2.67
NOx	100	20.0	0.000	0.751	0.75
VOC	5.5	0.20	0.000	0.008	0.01
CO	84	5.0	0.000	0.188	0.19
Hazardous Air Pollutant					
Arsenic	2.0E-04	5.6E-04	0.0E+00	2.10E-05	2.1E-05
Beryllium	1.2E-05	4.2E-04	0.0E+00	1.58E-05	1.6E-05
Cadmium	1.1E-03	4.2E-04	0.0E+00	1.58E-05	1.6E-05
Chromium	1.4E-03	4.2E-04	0.0E+00	1.58E-05	1.6E-05
Cobalt	8.4E-05		0.0E+00		0.0E+00
Lead	5.0E-04	1.3E-03	0.0E+00	4.73E-05	4.7E-05
Manganese	3.8E-04	8.4E-04	0.0E+00	3.15E-05	3.2E-05
Mercury	2.6E-04	4.2E-04	0.0E+00	1.58E-05	1.6E-05
Nickel	2.1E-03	4.2E-04	0.0E+00	1.58E-05	1.6E-05
Selenium	2.4E-05	2.1E-03	0.0E+00	7.88E-05	7.9E-05
Benzene	2.1E-03		0.0E+00		0.0E+00
Dichlorobenzene	1.2E-03		0.0E+00		0.0E+00
Ethylbenzene					0.0E+00
Formaldehyde	7.5E-02	6.10E-02	0.0E+00	2.29E-03	2.3E-03
Hexane	1.8E+00		0.00		0.0E+00
Phenol					0.0E+00
Toluene	3.4E-03		0.0E+00		0.0E+00
Total PAH Haps	negl		negl		0.0E+00
Polycyclic Organic Matter		3.30E-03		1.24E-04	1.2E-04
Total HAPs =			0.0E+00	2.7E-03	0.003

Methodology

Equivalent Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
 Equivalent Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.140 MMBtu]
 Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [ton/2000 lbs]
 All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] * [Emission Factor (lb/kgal)] * [kgal/1000 gal] * [ton/2000 lbs]

Sources of AP-42 Emission Factors for fuel combustion:

Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4
 No. 2 Fuel Oil: AP-42 Chapter 1.3 (dated 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.1: Unlimited Emissions Calculations
Asphalt Load-Out, Silo Filling, and Yard Emissions**

**Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon**

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

Asphalt Temperature, T =	325	F
Asphalt Volatility Factor, V =	-0.5	
Maximum Annual Asphalt Production =	3,504,000	tons/yr

Pollutant	Emission Factor (lb/ton asphalt)			Unlimited/Uncontrolled Potential to Emit (tons/yr)			
	Load-Out	Silo Filling	On-Site Yard	Load-Out	Silo Filling	On-Site Yard	Total
Total PM*	5.2E-04	5.9E-04	NA	0.91	1.03	NA	1.94
Organic PM	3.4E-04	2.5E-04	NA	0.60	0.445	NA	1.04
TOC	0.004	0.012	0.001	7.29	21.35	1.927	30.6
CO	0.001	0.001	3.5E-04	2.36	2.067	0.617	5.05

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

PM/HAPs	0.042	0.050	0	0.093
VOC/HAPs	0.108	0.272	0.028	0.408
non-VOC/HAPs	5.6E-04	5.8E-05	1.5E-04	7.7E-04
non-VOC/non-HAPs	0.53	0.30	0.14	0.97

Total VOCs	6.85	21.35	1.8	30.0
Total HAPs	0.15	0.32	0.029	0.50
Worst Single HAP				0.155
				(formaldehyde)

Methodology

The asphalt temperature and volatility factor were provided by the source.
 Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
 Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-14, 11.1-15, and 11.1-16
 Plant Load-Out Emission Factor Equations (AP-42 Table 11.1-14)::
 Total PM/PM10/PM2.5 Ef = 0.000181 + 0.00141(-V)e^{-(0.0251)(T+460)-20.43)}
 Organic PM Ef = 0.00141(-V)e^{-(0.0251)(T+460)-20.43)}
 TOC Ef = 0.0172(-V)e^{-(0.0251)(T+460)-20.43)}
 CO Ef = 0.00558(-V)e^{-(0.0251)(T+460)-20.43)}
 Silo Filling Emission Factor Equations (AP-42 Table 11.1-14):
 PM/PM10 Ef = 0.000332 + 0.00105(-V)e^{-(0.0251)(T+460)-20.43)}
 Organic PM Ef = 0.00105(-V)e^{-(0.0251)(T+460)-20.43)}
 TOC Ef = 0.0504(-V)e^{-(0.0251)(T+460)-20.43)}
 CO Ef = 0.00488(-V)e^{-(0.0251)(T+460)-20.43)}
 On Site Yard CO emissions estimated by multiplying the TOC emissions by 0.32
 *No emission factors available for PM10 or PM2.5, therefore IDEM assumes PM10 and PM2.5 are equivalent to Total PM.

Abbreviations

TOC = Total Organic Compounds
 CO = Carbon Monoxide
 PM = Particulate Matter
 PM10 = Particulate Matter (<10 um)
 PM2.5 = Particulate Matter (<2.5 um)
 HAP = Hazardous Air Pollutant
 VOC = Volatile Organic Compound

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

Company Name: **MAC Construction and Excavating Inc.**
 Source Address: **1417 Quarry Road, Jeffersonville, Indiana 47130**
 Permit Number: **019-28936-05282**
 Reviewer: **Jack Harmon**

Organic Particulate-Based Compounds (Table 11.1-15)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Unlimited/Uncontrolled Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of Total Organic PM)	Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)	Load-out	Silo Filling	Onsite Yard	Total
PAH HAPs										
Acenaphthene	83-32-9	PM/HAP	POM	Organic PM	0.26%	0.47%	1.6E-03	2.1E-03	NA	3.6E-03
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	0.014%	1.7E-04	6.2E-05	NA	2.3E-04
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	0.13%	4.2E-04	5.8E-04	NA	1.0E-03
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	0.056%	1.1E-04	2.5E-04	NA	3.6E-04
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	0	4.5E-05	0	NA	4.5E-05
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	0	1.3E-05	0	NA	1.3E-05
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	0	1.1E-05	0	NA	1.1E-05
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	0	1.4E-05	0	NA	1.4E-05
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	0.0095%	4.7E-05	4.2E-05	NA	8.9E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	0.21%	6.2E-04	9.3E-04	NA	1.5E-03
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	0	2.2E-06	0	NA	2.2E-06
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	0.15%	3.0E-04		NA	3.0E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.01%	4.6E-03	4.5E-03	NA	9.1E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	0	2.8E-06	0	NA	2.8E-06
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	5.27%	1.4E-02	2.3E-02	NA	0.038
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	1.82%	7.5E-03	8.1E-03	NA	1.6E-02
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	0.03%	1.3E-04	1.3E-04	NA	2.6E-04
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.80%	4.8E-03	8.0E-03	NA	1.3E-02
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	0.44%	9.0E-04	2.0E-03	NA	2.9E-03
Total PAH HAPs							0.035	0.050	NA	0.086
Other semi-volatile HAPs										
Phenol		PM/HAP	---	Organic PM	1.18%	0	7.0E-03	0	0	7.0E-03

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

Methodology

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

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

Abbreviations

PM = Particulate Matter

HAP = Hazardous Air Pollutant

POM = Polycyclic Organic Matter

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

Organic Volatile-Based Compounds (Table 11.1-16)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Unlimited/Uncontrolled Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of TOC)	Silo Filling and Asphalt Storage Tank (% by weight of TOC)	Load-out	Silo Filling	Onsite Yard	Total
VOC		VOC	---	TOC	94%	100%	6.85	21.35	1.81	30.01
non-VOC/non-HAPS										
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	0.26%	4.7E-01	5.6E-02	1.3E-01	0.654
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	0.055%	3.4E-03	1.2E-02	8.9E-04	0.016
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.10%	5.2E-02	2.3E-01	1.4E-02	0.300
Total non-VOC/non-HAPS					7.30%	1.40%	0.532	0.299	0.141	0.97
Volatile organic HAPs										
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	0.032%	3.8E-03	6.8E-03	1.0E-03	1.2E-02
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	0.0049%	7.0E-04	1.0E-03	1.9E-04	1.9E-03
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	0.039%	3.6E-03	8.3E-03	9.4E-04	1.3E-02
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	0.016%	9.5E-04	3.4E-03	2.5E-04	4.6E-03
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	0.004%	1.5E-05	8.5E-04	4.0E-06	8.7E-04
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	0.023%	1.1E-03	4.9E-03	2.9E-04	6.3E-03
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	0	8.0E-03	0	2.1E-03	1.0E-02
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	0.038%	2.0E-02	8.1E-03	5.4E-03	0.034
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	0.69%	6.4E-03	1.5E-01	1.7E-03	0.155
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	0.10%	1.1E-02	2.1E-02	2.9E-03	0.035
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	0.00031%	1.3E-04	6.6E-05	3.5E-05	2.3E-04
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0.00027%	0	5.8E-05	0	5.8E-05
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	0.0054%	5.3E-04	1.2E-03	1.4E-04	1.8E-03
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	0	5.6E-04	0	1.5E-04	7.1E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	0.062%	1.5E-02	1.3E-02	4.0E-03	0.033
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	9.5E-05	0	2.5E-05	1.2E-04
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	0.20%	3.0E-02	4.3E-02	7.9E-03	0.080
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	0.057%	5.8E-03	1.2E-02	1.5E-03	2.0E-02
Total volatile organic HAPs					1.50%	1.30%	0.109	0.278	0.029	0.416

Methodology

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

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

Abbreviations

TOC = Total Organic Compounds

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

MTBE = Methyl tert butyl ether

**Appendix A.1: Unlimited Emissions Calculations
Material Storage Piles**

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

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

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

where E_f = emission factor (lb/acre/day)
 s = silt content (wt %)
 p = days of rain greater than or equal to 0.01 inches
 f = % of wind greater than or equal to 12 mph

Material	Silt Content (wt %)*	Emission Factor (lb/acre/day)	Maximum Anticipated Pile Size (acres)**	PTE of PM (tons/yr)	PTE of PM10/PM2.5 (tons/yr)
Sand	2.6	3.01	0.00	0.000	0.000
Virg Aggregate	7.1	8.22	0.30	0.450	0.157
RAP	7.1	8.22	0.10	0.150	0.052
Gravel	1.6	1.85	0.00	0.000	0.000
Slag	3.8	4.40	0.03	0.024	0.008
Totals				0.62	0.22

Methodology

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

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

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

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

RAP - recycled asphalt pavement

Abbreviations

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

PM2.5 = PM10

PTE = Potential to Emit

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

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

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

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

where: E_f = Emission factor (lb/ton)

k (PM) =	0.74	= particle size multiplier (0.74 assumed for aerodynamic diameter <=100 um)
k (PM10) =	0.35	= particle size multiplier (0.35 assumed for aerodynamic diameter <=10 um)
k (PM2.5) =	0.053	= particle size multiplier (0.053 assumed for aerodynamic diameter <=2.5 um)
U =	12	= worst case annual mean wind speed (Source: NOAA, 2006*)
M =	4.5	= material % moisture content of aggregate (Source: AP-42 Section 11.1.1.1)
Ef (PM) =	2.37E-03	lb PM/ton of material handled
Ef (PM10) =	1.12E-03	lb PM10/ton of material handled
Ef (PM2.5) =	1.70E-04	lb PM2.5/ton of material handled

Maximum Annual Asphalt Production = 3,504,000 tons/yr
 Percent Asphalt Cement/Binder (weight %) = 5.0%
 Maximum Material Handling Throughput = 3,328,800 tons/yr

Type of Activity	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10 (tons/yr)	Unlimited/Uncontrolled PTE of PM2.5 (tons/yr)
Truck unloading of materials into storage piles	3.95	1.87	0.28
Front-end loader dumping of materials into feeder bins	3.95	1.87	0.28
Conveyor dropping material into dryer/mixer or batch tower	3.95	1.87	0.28
Total (tons/yr)	11.86	5.61	0.85

Methodology

The percent asphalt cement/binder provided by the source.
 Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
 Unlimited Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
 Raw materials may include limestone, sand, recycled asphalt pavement (RAP), gravel, slag, and other additives
 *Worst case annual mean wind speed (Indianapolis, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006

Material Screening and Conveying (AP-42 Section 11.19.2)

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

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10/PM2.5 (tons/yr)**
Crushing	0.0054	0.0024	8.99	3.99
Screening	0.025	0.0087	41.61	14.48
Conveying	0.003	0.0011	4.99	1.83
Unlimited Potential to Emit (tons/yr) =			55.59	20.31

Methodology

Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
 Unlimited Potential to Emit (tons/yr) = [Maximum Material Handling Throughput (tons/yr)] * [Emission Factor (lb/ton)] * [ton/2000 lbs]
 Raw materials may include stone/gravel, slag, and recycled asphalt pavement (RAP)
 Emission Factors from AP-42 Chapter 11.19.2 (dated 8/04), Table 11.19.2-2
 *Uncontrolled emissions factors for PM/PM10 represent tertiary crushing of stone with moisture content ranging from 0.21 to 1.3 percent by weight (Table 11.19.2-2). The bulk moisture content of aggregate in the storage piles at a hot mix asphalt production plant typically stabilizes between 3 to 5 percent by weight (Source: AP-42 Section 11.1.1.1).
 **Assumes PM10 = PM2.5

Abbreviations

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

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

Unpaved Roads at Industrial Site

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

Maximum Annual Asphalt Production	3,504,000	tons/yr
Percent Asphalt Cement/Binder (weight %)	5.0%	
Maximum Material Handling Throughput	3,328,800	tons/yr
Maximum Asphalt Cement/Binder Throughput	175,200	tons/yr
Maximum No. 2 Fuel Oil Usage	0	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.4	1.5E+05	5.9E+06	300	0.057	8443.6
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.0	1.5E+05	2.5E+06	300	0.057	8443.6
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	4.9E+03	2.3E+05	300	0.057	276.5
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	4.9E+03	5.8E+04	300	0.057	276.5
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.0	0.0E+00	0.0E+00	300	0.057	0.0
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	0.0E+00	0.0E+00	300	0.057	0.0
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.2	7.9E+05	1.5E+07	300	0.057	45032.5
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	7.9E+05	1.2E+07	300	0.057	45032.5
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.0	1.5E+05	6.0E+06	300	0.057	8295.5
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.0	1.5E+05	2.5E+06	300	0.057	8295.5
Total						2.2E+06	4.4E+07		1.2E+05

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

Unmitigated Emission Factor, $E_f = k \left[\frac{s}{12} \right]^a \left[\frac{W}{3} \right]^b$ (Equation 1a from AP-42 13.2.2)

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

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

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, E_f	6.09	1.55	0.16	lb/mile
Mitigated Emission Factor, E_{ext}	4.01	1.02	0.10	lb/mile
Dust Control Efficiency	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	25.73	6.56	0.66	16.92	4.31	0.43	8.46	2.16	0.22
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	25.73	6.56	0.66	16.92	4.31	0.43	8.46	2.16	0.22
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.843	0.215	0.02	0.554	0.141	0.01	0.277	0.071	0.01
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.843	0.215	0.02	0.554	0.141	0.01	0.277	0.071	0.01
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
Aggregate/RAP Loader Full	Front-end loader (3 CY)	137.22	34.97	3.50	90.22	22.99	2.30	45.11	11.50	1.15
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	137.22	34.97	3.50	90.22	22.99	2.30	45.11	11.50	1.15
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	25.28	6.44	0.64	16.62	4.24	0.42	8.31	2.12	0.21
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	25.28	6.44	0.64	16.62	4.24	0.42	8.31	2.12	0.21
Totals		378.13	96.37	9.64	248.63	63.37	6.34	124.32	31.68	3.17

Methodology

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

Abbreviations

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

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (12/2003).

Maximum Annual Asphalt Production	3,504,000	tons/yr
Percent Asphalt Cement/Binder (weight %)	5.0%	
Maximum Material Handling Throughput	3,328,800	tons/yr
Maximum Asphalt Cement/Binder Throughput	175,200	tons/yr
Maximum No. 2 Fuel Oil Usage	0	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per day (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.40	1.5E+05	5.9E+06	300	0.057	8443.6
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	17	34.00	1.5E+05	5.1E+06	300	0.057	8443.6
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.00	4.9E+03	2.3E+05	300	0.057	276.5
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	12	24.00	4.9E+03	1.2E+05	300	0.057	276.5
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.00	0.0E+00	0.0E+00	300	0.057	0.0
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	12	24.00	0.0E+00	0.0E+00	300	0.057	0.0
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.20	7.9E+05	1.5E+07	300	0.057	45032.5
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	15	30.00	7.9E+05	2.4E+07	300	0.057	45032.5
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.00	1.5E+05	6.0E+06	300	0.057	8295.5
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	17	34.00	1.5E+05	5.0E+06	300	0.057	8295.5
Total					2.2E+06	6.1E+07			1.2E+05

Average Vehicle Weight Per Trip	28.0	tons/trip
Average Miles Per Trip	0.057	miles/trip

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

	PM	PM10	PM2.5	
where k =	0.082	0.016	0.0024	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
W =	24.0	24.0	24.0	tons = average vehicle weight (provided by source)
C =	0.00047	0.00047	0.00036	lb/mi = emission factor for vehicle exhaust, brake wear, and tire wear (AP-42 Table 13.2.1-2)
sL =	0.6	0.6	0.6	g/m ² = Ubiquitous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)]

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.85	0.17	0.02	lb/mile
Mitigated Emission Factor, Eext =	0.78	0.15	0.02	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	3.58	0.70	0.10	3.27	0.64	0.09	1.64	0.32	0.05
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	3.58	0.70	0.10	3.27	0.64	0.09	1.64	0.32	0.05
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.117	0.023	3.4E-03	0.107	0.021	3.1E-03	0.054	1.0E-02	1.5E-03
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.117	0.023	3.4E-03	0.107	0.021	3.1E-03	0.054	1.0E-02	1.5E-03
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aggregate/RAP Loader Full	Front-end loader (3 CY)	19.09	3.72	0.55	17.46	3.40	0.50	8.73	1.70	0.25
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	19.09	3.72	0.55	17.46	3.40	0.50	8.73	1.70	0.25
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	3.52	0.68	0.10	3.22	0.63	0.09	1.61	0.31	0.05
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	3.52	0.68	0.10	3.22	0.63	0.09	1.61	0.31	0.05
Totals		52.61	10.24	1.52	48.11	9.36	1.39	24.05	4.68	0.69

Methodology

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

Abbreviations

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

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

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

Maximum Annual Asphalt Production =	3,504,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	0.0%	
Maximum Asphalt Cement/Binder Throughput =	0	tons/yr

If source does not produce cold mix asphalt enter a value of 0%.

Volatile Organic Compounds

	Maximum weight % of VOC solvent in binder*	Weight % VOC solvent in binder that evaporates	Maximum VOC Solvent Usage (tons/yr)	PTE of VOC (tons/yr)
Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)	25.3%	95.0%	0.0	0.0
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	0.0	0.0
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	0.0	0.0
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	0.0	0.0
Other asphalt with solvent binder	25.9%	2.5%	0.0	0.0
Worst Case PTE of VOC =				0.0

Hazardous Air Pollutants

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0% Xylenes
PTE of Total HAPs (tons/yr) =	0.00
PTE of Single HAP (tons/yr) =	0.00 Xylenes

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

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

Methodology

Maximum Asphalt Cement/Binder Throughput = [Annual Asphalt Production Limitation (tons/yr)] * [Percent Asphalt Cement/Binder (weight %)]
 Maximum VOC Solvent Usage (tons/yr) = [Maximum Asphalt Cement/Binder Throughput (tons/yr)] * [Maximum Weight % of VOC Solvent in Binder]
 PTE of VOC (tons/yr) = [Weight % VOC solvent in binder that evaporates] * [Maximum VOC Solvent Usage (tons/yr)]
 PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]
 PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]
 *Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehs.com/publications/catalog/contents/tp.htm>

Abbreviations

VOC = Volatile Organic Compounds
 PTE = Potential to Emit

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

**Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon**

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

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

Volatile Organic Compounds

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

Hazardous Air Pollutants

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0% Xylenes
Limited PTE of Total HAPs (tons/yr) =	0.00
Limited PTE of Single HAP (tons/yr) =	0.00 Xylenes

Methodology

The gasoline throughput was provided by the source.

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

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

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

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

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

Abbreviations

VOC = Volatile Organic Compounds

PTE = Potential to Emit

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

Asphalt Plant Limitations

Maximum Hourly Asphalt Production =	400	ton/hr								
Annual Asphalt Production Limitation =	960,000	ton/yr								
Slag Usage Limitation =	3,634	ton/yr	1.50	% sulfur						
Natural Gas Limitation =	0.00	MMCF/yr								
No. 2 Fuel Oil Limitation =	0	gal/yr, and	0.50	% sulfur						
No. 4 Fuel Oil Limitation =	2,536,025	gal/yr, and	0.50	% sulfur						
Residual (No. 5 or No. 6) Fuel Oil Limitation =	2,422,954	gal/yr, and	0.50	% sulfur						
Propane Limitation =	0	gal/yr, and	0.00	gr/100 ft3 sulfur						
Butane Limitation =	0	gal/yr, and	0.00	gr/100 ft3 sulfur						
Used/Waste Oil Limitation =	1,542,700	gal/yr, and	0.47	% sulfur	0.50	% ash	0.114	% chlorine,	0.010	% lead
PM Dryer/Mixer Limitation =	0.407	lb/ton of asphalt production								
PM10 Dryer/Mixer Limitation =	0.172	lb/ton of asphalt production								
PM2.5 Dryer/Mixer Limitation =	0.191	lb/ton of asphalt production								
CO Dryer/Mixer Limitation =	0.130	lb/ton of asphalt production								
VOC Dryer/Mixer Limitation =	0.032	lb/ton of asphalt production								
Slag SO2 Dryer/Mixer Limitation =	0.740	lb/ton of slag processed								
Cold Mix Asphalt VOC Usage Limitation =	0.0	tons/yr								
HCl Limitation =	7.524	lb/kgal								

Limited/Controlled Emissions

Process Description	Limited/Controlled Potential Emissions (tons/year)								
	Criteria Pollutants							Hazardous Air Pollutants	
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst Case HAP
Ducted Emissions									
Dryer Fuel Combustion (worst case)	24.68	19.67	19.67	95.10	59.60	0.77	6.34	6.59	5.80 (hydrogen chloride)
Dryer/Mixer (Process)	195.38	82.42	91.48	27.84	26.40	15.36	62.40	5.12	1.49 (formaldehyde)
Dryer/Mixer Slag Processing	0	0	0	1.34	0	0	0	0	0
Hot Oil Heater Fuel Combustion (worst case)	0.07	0.12	0.12	2.55	0.72	0.03	0.42	0.01	0.009 (hexane)
Worst Case Emissions*	195.45	82.54	91.60	99.00	60.32	15.39	62.82	6.61	5.80 (hydrogen chloride)
Fugitive Emissions									
Asphalt Load-Out, Silo Filling, On-Site Yard	0.53	0.53	0.53	0	0	8.22	1.38	0.14	0.04 (formaldehyde)
Material Storage Piles	0.62	0.22	0.22	0	0	0	0	0	0
Material Processing and Handling	3.10	1.47	0.22	0	0	0	0	0	0
Material Crushing, Screening, and Conveying	15.23	5.56	5.56	0	0	0	0	0	0
Unpaved and Paved Roads (worst case)	34.06	8.68	0.87	0	0	0	0	0	0
Cold Mix Asphalt Production	0	0	0	0	0	0.00	0	0.00	0.00 (xylenes)
Gasoline Fuel Transfer and 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	53.55	16.46	7.40	0	0	8.22	1.38	0.14	0.00 (xylenes)
Totals Limited/Controlled Emissions	249.00	99.00	99.00	99.00	60.32	23.61	64.21	6.74	5.80 (hydrogen chloride)

negl = negligible

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

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

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

Company Name: **MAC Construction and Excavating Inc.**
 Source Address: **1417 Quarry Road, Jeffersonville, Indiana 47130**
 Permit Number: **019-28936-05282**
 Reviewer: **Jack Harmon**

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

Production and Fuel Limitations

Maximum Hourly Asphalt Production =	400	ton/hr
Annual Asphalt Production Limitation =	960,000	ton/yr
Natural Gas Limitation =	0	MMCF/yr
No. 2 Fuel Oil Limitation =	0	gal/yr, and
No. 4 Fuel Oil Limitation =	2,536,025	gal/yr, and
Residual (No. 5 or No. 6) Fuel Oil Limitation =	2,422,954	gal/yr, and
Propane Limitation =	0	gal/yr, and
Butane Limitation =	0	gal/yr, and
Used/Waste Oil Limitation =	1,542,700	gal/yr, and

	0.50	% sulfur
	0.50	% sulfur
	0.50	% sulfur
	0.00	gr/100 ft3 sulfur
	0.00	gr/100 ft3 sulfur
	0.47	% sulfur
	0.50	% ash
	0.114	% chlorine
	0.010	% lead

Limited Emissions

Criteria Pollutant	Emission Factor (units)								Limited Potential to Emit (tons/yr)							
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil* (lb/kgal)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/Waste Oil (tons/yr)	Worse Case Fuel (tons/yr)	
PM	1.9	2	7	7.815	0.5	0.6	32	0.00	0.00	8.88	9.47	0.000	0.000	24.68	24.68	
PM10	7.6	3.3	8.3	9.315	0.5	0.6	25.5	0.00	0.00	10.52	11.28	0.000	0.000	19.67	19.67	
SO2	0.6	71.0	75.0	78.5	0.000	0.000	69.1	0.00	0.00	95.10	95.10	0.000	0.000	53.29	95.10	
NOx	190	24.0	47.0	47.0	13.0	15.0	19.0	0.00	0.00	59.60	56.94	0.00	0.00	14.66	59.60	
VOC	5.5	0.20	0.20	0.28	1.00	1.10	1.0	0.00	0.00	0.25	0.34	0.00	0.00	0.77	0.77	
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	0.00	0.00	6.34	6.06	0.00	0.00	3.86	6.34	
Hazardous Air Pollutant																
HCl							7.5							5.80	5.80	
Antimony			5.25E-03	5.25E-03			negl			6.66E-03	6.36E-03			negl	6.7E-03	
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03			1.1E-01	0.0E+00	0.0E+00	1.67E-03	1.60E-03			8.48E-02	8.5E-02	
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05			negl	0.0E+00	0.0E+00	3.53E-05	3.37E-05			negl	3.5E-05	
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04			9.3E-03	0.0E+00	0.0E+00	5.05E-04	4.82E-04			7.17E-03	7.2E-03	
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04			2.0E-02	0.0E+00	0.0E+00	1.07E-03	1.02E-03			1.54E-02	1.5E-02	
Cobalt	8.4E-05		6.02E-03	6.02E-03			2.1E-04	0.0E+00		7.63E-03	7.29E-03			1.62E-04	7.6E-03	
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03			0.55	0.0E+00	0.0E+00	1.91E-03	1.83E-03			4.2E-01	0.42	
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03			6.8E-02	0.0E+00	0.0E+00	3.80E-03	3.63E-03			5.25E-02	0.05	
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04				0.0E+00	0.0E+00	1.43E-04	1.37E-04				1.4E-04	
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02			1.1E-02	0.0E+00	0.0E+00	1.07E-01	1.02E-01			8.48E-03	0.107	
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04			negl	0.0E+00	0.0E+00	8.66E-04	8.27E-04			negl	8.7E-04	
1,1,1-Trichloroethane			2.36E-04	2.36E-04						2.99E-04	2.86E-04				3.0E-04	
1,3-Butadiene															0.0E+00	
Acetaldehyde															0.0E+00	
Acrolein															0.0E+00	
Benzene	2.1E-03		2.14E-04	2.14E-04				0.0E+00		2.71E-04	2.59E-04				2.7E-04	
Bis(2-ethylhexyl)phthalate							2.2E-03							1.70E-03	1.7E-03	
Dichlorobenzene	1.2E-03						8.0E-07	0.0E+00						6.17E-07	6.2E-07	
Ethylbenzene			6.36E-05	6.36E-05						8.06E-05	7.70E-05				8.1E-05	
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				0.0E+00	0.0E+00	4.18E-02	4.00E-02				0.042	
Hexane	1.8E+00							0.00							0.000	
Phenol							2.4E-03							1.85E-03	1.9E-03	
Toluene	3.4E-03		6.20E-03	6.20E-03				0.0E+00		7.86E-03	7.51E-03				7.9E-03	
Total PAH Haps	negl		1.13E-03	1.13E-03			3.9E-02	negl		1.43E-03	1.37E-03			3.02E-02	3.0E-02	
Polycyclic Organic Matter		3.30E-03							0.00E+00						0.0E+00	
Xylene			1.09E-04	1.09E-04						1.38E-04	1.32E-04				1.4E-04	
Total HAPs								0.00	0.00	0.18	0.18	0	0	6.43	6.59	

Methodology

Natural Gas: Limited Potential to Emit (tons/yr) = (Natural Gas Limitation (MMCF/yr)) * (Emission Factor (lb/MMCF)) * (ton/2000 lbs)
 All Other Fuels: Limited Potential to Emit (tons/yr) = (Fuel Limitation (gals/yr)) * (Emission Factor (lb/kgal)) * (kgal/1000 gal) * (ton/2000 lbs)
 Sources of AP-42 Emission Factors for fuel combustion:

- Natural Gas: AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4
- No. 2, No. 4, and No. 6 Fuel Oil: AP-42 Chapter 1.3 (dated 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11
- Propane and Butane: AP-42 Chapter 1.5 (dated 7/08), Tables 1.5-1 (assuming PM = PM10)
- Waste Oil: AP-42 Chapter 1.11 (dated 10/98), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5

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

Abbreviations

- PM = Particulate Matter
- PM10 = Particulate Matter (<10 um)
- SO2 = Sulfur Dioxide
- NOx = Nitrous Oxides
- VOC = Volatile Organic Compounds
- CO = Carbon Monoxide

- HAP = Hazardous Air Pollutant
- HCl = Hydrogen Chloride
- PAH = Polyaromatic Hydrocarbon

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

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

Maximum Hourly Asphalt Production =	400	ton/hr
Annual Asphalt Production Limitation =	960,000	ton/yr
PM Dryer/Mixer Limitation =	0.407	lb/ton of asphalt production
PM10 Dryer/Mixer Limitation =	0.172	lb/ton of asphalt production
PM2.5 Dryer/Mixer Limitation =	0.191	lb/ton of asphalt production
CO Dryer/Mixer Limitation =	0.130	lb/ton of asphalt production
VOC Dryer/Mixer Limitation =	0.032	lb/ton of asphalt production

Criteria Pollutant	Emission Factor or Limitation (lb/ton)			Limited/Controlled Potential to Emit (tons/yr)			Worse Case PTE
	Drum-Mix Plant (dryer/mixer, controlled by fabric filter)			Drum-Mix Plant (dryer/mixer, controlled by fabric filter)			
	Natural Gas	No. 2 Fuel Oil	Waste Oil	Natural Gas	No. 2 Fuel Oil	Waste Oil	
PM*	0.407	0.407	0.407	195.4	195.4	195.4	195.4
PM10*	0.172	0.172	0.172	82.4	82.4	82.4	82.4
PM2.5*	0.191	0.191	0.191	91.5	91.5	91.5	91.5
SO2**	0.003	0.011	0.058	1.6	5.3	27.8	27.8
NOx**	0.026	0.055	0.055	12.5	26.4	26.4	26.4
VOC**	0.032	0.032	0.032	15.4	15.4	15.4	15.4
CO**	0.130	0.130	0.130	62.4	62.4	62.4	62.4
Hazardous Air Pollutant							
HCl			2.10E-04			0.10	0.10
Antimony	1.80E-07	1.80E-07	1.80E-07	8.64E-05	8.64E-05	8.64E-05	8.64E-05
Arsenic	5.60E-07	5.60E-07	5.60E-07	2.69E-04	2.69E-04	2.69E-04	2.69E-04
Beryllium	negl	negl	negl	negl	negl	negl	0.00E+00
Cadmium	4.10E-07	4.10E-07	4.10E-07	1.97E-04	1.97E-04	1.97E-04	1.97E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	2.64E-03	2.64E-03	2.64E-03	2.64E-03
Cobalt	2.60E-08	2.60E-08	2.60E-08	1.25E-05	1.25E-05	1.25E-05	1.25E-05
Lead	6.20E-07	1.50E-05	1.50E-05	2.98E-04	7.20E-03	7.20E-03	7.20E-03
Manganese	7.70E-06	7.70E-06	7.70E-06	3.70E-03	3.70E-03	3.70E-03	3.70E-03
Mercury	2.40E-07	2.60E-06	2.60E-06	1.15E-04	1.25E-03	1.25E-03	1.25E-03
Nickel	6.30E-05	6.30E-05	6.30E-05	3.02E-02	3.02E-02	3.02E-02	3.02E-02
Selenium	3.50E-07	3.50E-07	3.50E-07	1.68E-04	1.68E-04	1.68E-04	1.68E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	1.92E-02	1.92E-02	1.92E-02	1.92E-02
Acetaldehyde			1.30E-03			0.62	0.62
Acrolein			2.60E-05			1.25E-02	1.25E-02
Benzene	3.90E-04	3.90E-04	3.90E-04	0.19	0.19	0.19	0.19
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.12	0.12	0.12	0.12
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	1.49	1.49	1.49	1.49
Hexane	9.20E-04	9.20E-04	9.20E-04	0.44	0.44	0.44	0.44
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.02	0.02	0.02	0.02
MEK			2.00E-05			0.01	0.01
Propionaldehyde			1.30E-04			0.06	0.06
Quinone			1.60E-04			0.08	0.08
Toluene	1.50E-04	2.90E-03	2.90E-03	0.07	1.39	1.39	1.39
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.09	0.42	0.42	0.42
Xylene	2.00E-04	2.00E-04	2.00E-04	0.10	0.10	0.10	0.10
Total HAPs							5.12
Worst Single HAP							1.488 (formaldehyde)

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

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-3, 11.1-4, 11.1-7, 11.1-8, 11.1-10, and 11.1-12

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

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

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

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

Abbreviations

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

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

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

Slag Usage Limitation =

3,634

 ton/yr
 SO2 Slag Limitation =

0.740

 lb/ton of slag processed

1.50

 % sulfur

	Emission Factor or Limitation (lb/ton)*	Limited Potential to Emit (tons/yr)
Criteria Pollutant	Slag Processing	Slag Processing
SO2	0.740	1.3

Methodology

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

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

Abbreviations

SO2 = Sulfur Dioxide

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

Company Name: MAC Construction and Excavating Inc.
Source Location: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

Maximum Hot Oil Heater Fuel Input Rate = 1.2 MMBtu/hr
 Natural Gas Usage = 10 MMCF/yr
 No. 2 Fuel Oil Usage = 71,957 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	0.010	0.072	0.07
PM10/PM2.5	7.6	3.3	0.038	0.119	0.12
SO2	0.6	71.0	0.003	2.554	2.55
NOx	100	20.0	0.504	0.720	0.72
VOC	5.5	0.20	0.028	0.007	0.03
CO	84	5.0	0.423	0.180	0.42
Hazardous Air Pollutant					
Arsenic	2.0E-04	5.6E-04	1.0E-06	2.01E-05	2.0E-05
Beryllium	1.2E-05	4.2E-04	6.0E-08	1.51E-05	1.5E-05
Cadmium	1.1E-03	4.2E-04	5.5E-06	1.51E-05	1.5E-05
Chromium	1.4E-03	4.2E-04	7.1E-06	1.51E-05	1.5E-05
Cobalt	8.4E-05		4.2E-07		4.2E-07
Lead	5.0E-04	1.3E-03	2.5E-06	4.53E-05	4.5E-05
Manganese	3.8E-04	8.4E-04	1.9E-06	3.02E-05	3.0E-05
Mercury	2.6E-04	4.2E-04	1.3E-06	1.51E-05	1.5E-05
Nickel	2.1E-03	4.2E-04	1.1E-05	1.51E-05	1.5E-05
Selenium	2.4E-05	2.1E-03	1.2E-07	7.56E-05	7.6E-05
Benzene	2.1E-03		1.1E-05		1.1E-05
Dichlorobenzene	1.2E-03		6.0E-06		6.0E-06
Ethylbenzene					0
Formaldehyde	7.5E-02	6.10E-02	3.8E-04	2.19E-03	0.002
Hexane	1.8E+00		0.01		0.009
Phenol					0
Toluene	3.4E-03		1.7E-05		1.7E-05
Total PAH Haps	negl				0
Polycyclic Organic Matter		3.30E-03		1.19E-04	1.2E-04
Total HAPs =			9.5E-03	2.6E-03	0.012

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

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

Asphalt Temperature, T =	325	F
Asphalt Volatility Factor, V =	-0.5	
Annual Asphalt Production Limitation =	960,000	tons/yr

Pollutant	Emission Factor (lb/ton asphalt)			Limited Potential to Emit (tons/yr)			
	Load-Out	Silo Filling	On-Site Yard	Load-Out	Silo Filling	On-Site Yard	Total
Total PM*	5.2E-04	5.9E-04	NA	0.25	0.28	NA	0.53
Organic PM	3.4E-04	2.5E-04	NA	0.16	0.122	NA	0.29
TOC	0.004	0.012	0.001	2.00	5.85	0.528	8.4
CO	0.001	0.001	3.5E-04	0.65	0.566	0.169	1.38

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

PM/HAPs	0.012	0.014	0	0.026
VOC/HAPs	0.029	0.074	0.008	0.112
non-VOC/HAPs	1.5E-04	1.6E-05	4.1E-05	2.1E-04
non-VOC/non-HAPs	0.14	0.08	0.04	0.27

Total VOCs	1.88	5.85	0.5	8.2
Total HAPs	0.04	0.09	0.008	0.14
		Worst Single HAP		0.043
				(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)::

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

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

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

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

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

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

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

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

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

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

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

Abbreviations

TOC = Total Organic Compounds

CO = Carbon Monoxide

PM = Particulate

Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

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

Company Name: MAC Construction and Excavating Inc.
 Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
 Permit Number: 019-28936-05282
 Reviewer: Jack Harmon

Organic Particulate-Based Compounds (Table 11.1-15)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Limited Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of Total Organic PM)	Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)	Load-out	Silo Filling	Onsite Yard	Total
PAH HAPs										
Acenaphthene	83-32-9	PM/HAP	POM	Organic PM	0.26%	0.47%	4.3E-04	5.7E-04	NA	1.0E-03
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	0.014%	4.6E-05	1.7E-05	NA	6.3E-05
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	0.13%	1.1E-04	1.6E-04	NA	2.7E-04
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	0.056%	3.1E-05	6.8E-05	NA	9.9E-05
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	0	1.2E-05	0	NA	1.2E-05
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	0	3.6E-06	0	NA	3.6E-06
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	0	3.1E-06	0	NA	3.1E-06
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	0	3.8E-06	0	NA	3.8E-06
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	0.0095%	1.3E-05	1.2E-05	NA	2.4E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	0.21%	1.7E-04	2.6E-04	NA	4.2E-04
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	0	6.1E-07	0	NA	6.1E-07
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	0.15%	8.2E-05	1.8E-04	NA	2.6E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.01%	1.3E-03	1.2E-03	NA	2.5E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	0	7.7E-07	0	NA	7.7E-07
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	5.27%	3.9E-03	6.4E-03	NA	0.010
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	1.82%	2.0E-03	2.2E-03	NA	4.3E-03
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	0.03%	3.6E-05	3.7E-05	NA	7.3E-05
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.80%	1.3E-03	2.2E-03	NA	3.5E-03
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	0.44%	2.5E-04	5.4E-04	NA	7.8E-04
Total PAH HAPs							0.010	0.014	NA	0.024
Other semi-volatile HAPs										
Phenol		PM/HAP	---	Organic PM	1.18%	0	1.9E-03	0	0	1.9E-03

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

Methodology

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

Abbreviations

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

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

Organic Volatile-Based Compounds (Table 11.1-16)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Limited Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of TOC)	Silo Filling and Asphalt Storage Tank (% by weight of TOC)	Load-out	Silo Filling	Onsite Yard	Total
VOC		VOC	---	TOC	94%	100%	1.88	5.85	0.50	8.22
non-VOC/non-HAPS										
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	0.26%	1.3E-01	1.5E-02	3.4E-02	0.179
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	0.055%	9.2E-04	3.2E-03	2.4E-04	0.004
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.10%	1.4E-02	6.4E-02	3.7E-03	0.082
Total non-VOC/non-HAPS					7.30%	1.40%	0.146	0.082	0.039	0.27
Volatile organic HAPs										
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	0.032%	1.0E-03	1.9E-03	2.7E-04	3.2E-03
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	0.0049%	1.9E-04	2.9E-04	5.1E-05	5.3E-04
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	0.039%	9.8E-04	2.3E-03	2.6E-04	3.5E-03
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	0.016%	2.6E-04	9.4E-04	6.9E-05	1.3E-03
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	0.004%	4.2E-06	2.3E-04	1.1E-06	2.4E-04
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	0.023%	3.0E-04	1.3E-03	7.9E-05	1.7E-03
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	0	2.2E-03	0	5.8E-04	2.8E-03
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	0.038%	5.6E-03	2.2E-03	1.5E-03	0.009
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	0.69%	1.8E-03	4.0E-02	4.6E-04	0.043
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	0.10%	3.0E-03	5.8E-03	7.9E-04	0.010
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	0.00031%	3.6E-05	1.8E-05	9.5E-06	6.4E-05
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0.00027%	0	1.6E-05	0	1.6E-05
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	0.0054%	1.5E-04	3.2E-04	3.9E-05	5.0E-04
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	0	1.5E-04	0	4.1E-05	1.9E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	0.062%	4.2E-03	3.6E-03	1.1E-03	0.009
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	2.6E-05	0	6.9E-06	3.3E-05
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	0.20%	8.2E-03	1.2E-02	2.2E-03	0.022
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	0.057%	1.6E-03	3.3E-03	4.2E-04	5.4E-03
Total volatile organic HAPs					1.50%	1.30%	0.030	0.076	0.008	0.114

Methodology

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

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

Abbreviations

TOC = Total Organic Compounds

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

MTBE = Methyl tert butyl ether

**Appendix A.2: Limited Emissions Summary
Material Storage Piles**

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

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

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

$E_f = 1.7 * (s/1.5) * (365-p) / 235 * (f/15)$ <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	2.6	3.01	0.00	0.000	0.000
Virg. Aggregate	7.1	8.22	0.30	0.450	0.157
RAP	7.1	8.22	0.10	0.150	0.052
Gravel	1.6	1.85	0.00	0.000	0.000
Slag	3.8	4.40	0.03	0.024	0.008
Totals				0.62	0.22

Methodology

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

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

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

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

Abbreviations

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

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

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

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

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

where: E_f = Emission factor (lb/ton)

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

Annual Asphalt Production Limitation =	960,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	912,000	tons/yr

Type of Activity	Limited PTE of PM (tons/yr)	Limited PTE of PM10 (tons/yr)	Limited PTE of PM2.5 (tons/yr)
Truck unloading of materials into storage piles	1.03	0.49	0.07
Front-end loader dumping of materials into feeder bins	1.03	0.49	0.07
Conveyor dropping material into dryer/mixer or batch tower	1.03	0.49	0.07
Total (tons/yr)	3.10	1.47	0.22

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	2.46	1.09
Screening	0.025	0.0087	11.40	3.97
Conveying	0.003	0.0011	1.37	0.50
Limited Potential to Emit (tons/yr) =			15.23	5.56

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 μ m)
 PM2.5 = Particulate Matter (<2.5 μ m)
 PTE = Potential to Emit

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

Unpaved Roads at Industrial Site

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

Annual Asphalt Production Limitation	960,000	tons/yr
Percent Asphalt Cement/Binder (weight %)	5.0%	
Maximum Material Handling Throughput	912,000	tons/yr
Maximum Asphalt Cement/Binder Throughput	48,000	tons/yr
No. 2 Fuel Oil Limitation	0	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.4	4.1E+04	1.6E+06	300	0.057	2313.3
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.0	4.1E+04	6.9E+05	300	0.057	2313.3
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	1.3E+03	6.4E+04	300	0.057	75.8
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	1.3E+03	1.6E+04	300	0.057	75.8
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.0	0.0E+00	0.0E+00	300	0.057	0.0
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	0.0E+00	0.0E+00	300	0.057	0.0
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.2	2.2E+05	4.2E+06	300	0.057	12337.7
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	2.2E+05	3.3E+06	300	0.057	12337.7
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.0	4.0E+04	1.6E+06	300	0.057	2272.7
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.0	4.0E+04	6.8E+05	300	0.057	2272.7
Total						6.0E+05	1.2E+07		3.4E+04

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

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

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

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

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, E_f	6.09	1.55	0.16	lb/mile
Mitigated Emission Factor, E_{ext}	4.01	1.02	0.10	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	7.05	1.80	0.18	4.63	1.18	0.12	2.32	0.59	0.06
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	7.05	1.80	0.18	4.63	1.18	0.12	2.32	0.59	0.06
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.231	0.059	0.01	0.152	0.039	3.9E-03	0.076	0.019	1.9E-03
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.231	0.059	0.01	0.152	0.039	3.9E-03	0.076	0.019	1.9E-03
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00
Aggregate/RAP Loader Full	Front-end loader (3 CY)	37.59	9.58	0.96	24.72	6.30	0.63	12.36	3.15	0.31
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	37.59	9.58	0.96	24.72	6.30	0.63	12.36	3.15	0.31
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	6.93	1.76	0.18	4.55	1.16	0.12	2.28	0.58	0.06
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	6.93	1.76	0.18	4.55	1.16	0.12	2.28	0.58	0.06
Totals		103.60	26.40	2.64	68.12	17.36	1.74	34.06	8.68	0.87

Methodology

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

Abbreviations

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

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (12/2003).

Annual Asphalt Production Limitation =	960,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	912,000	tons/yr
Maximum Asphalt Cement/Binder Throughput =	48,000	tons/yr
No. 2 Fuel Oil Limitation =	0	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per day (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.40	4.1E+04	1.6E+06	300	0.057	2313.3
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.00	4.1E+04	6.9E+05	300	0.057	2313.3
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.00	1.3E+03	6.4E+04	300	0.057	75.8
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	1.3E+03	1.6E+04	300	0.057	75.8
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.00	0.0E+00	0.0E+00	300	0.057	0.0
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	0.0E+00	0.0E+00	300	0.057	0.0
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.20	2.2E+05	4.2E+06	300	0.057	12337.7
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.00	2.2E+05	3.3E+06	300	0.057	12337.7
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.00	4.0E+04	1.6E+06	300	0.057	2272.7
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.00	4.0E+04	6.8E+05	300	0.057	2272.7
Total						6.0E+05	1.2E+07		3.4E+04

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

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

	PM	PM10	PM2.5	
where k =	0.082	0.016	0.0024	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
W =	20.3	20.3	20.3	tons = average vehicle weight (provided by source)
C =	0.00047	0.00047	0.00038	lb/mi = emission factor for vehicle exhaust, brake wear, and tire wear (AP-42 Table 13.2.1-2)
sL =	0.6	0.6	0.6	g/m ² = Ubiquitous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)]

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.66	0.13	0.02	lb/mile
Mitigated Emission Factor, Eext =	0.60	0.12	0.02	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	0.76	0.15	0.02	0.70	0.14	0.02	0.35	0.07	0.01
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	0.76	0.15	0.02	0.70	0.14	0.02	0.35	0.07	0.01
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.025	0.005	7.2E-04	0.023	0.004	6.5E-04	0.011	2.2E-03	3.3E-04
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.025	0.005	7.2E-04	0.023	0.004	6.5E-04	0.011	2.2E-03	3.3E-04
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aggregate/RAP Loader Full	Front-end loader (3 CY)	4.06	0.79	0.12	3.71	0.72	0.11	1.85	0.36	0.05
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	4.06	0.79	0.12	3.71	0.72	0.11	1.85	0.36	0.05
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	0.75	0.15	0.02	0.68	0.13	0.02	0.34	0.07	0.01
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	0.75	0.15	0.02	0.68	0.13	0.02	0.34	0.07	0.01
Totals		11.18	2.17	0.32	10.22	1.99	0.29	5.11	0.99	0.15

Methodology

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

Abbreviations

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

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

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

Cold Mix Asphalt VOC Usage Limitation = tons/yr

Volatile Organic Compounds

	Maximum weight % of VOC solvent in binder	Weight % VOC solvent in binder that evaporates	VOC Solvent Usage Limitation (tons/yr)	Limited PTE of VOC (tons/yr)	Liquid Binder Adjustment Ratio
Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)	25.3%	95.0%	0.0	0.0	#DIV/0!
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	0.0	0.0	#DIV/0!
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	0.0	0.0	#DIV/0!
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	0.0	0.0	#DIV/0!
Other asphalt with solvent binder	25.9%	2.5%	0.0	0.0	#DIV/0!
Worst Case Limited PTE of VOC =				0.0	

Hazardous Air Pollutants

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0% Xylenes
Limited PTE of Total HAPs (tons/yr) =	0.00
Limited PTE of Single HAP (tons/yr) =	0.00 Xylenes

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

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

Methodology

Limited PTE of VOC (tons/yr) = [Weight % VOC solvent in binder that evaporates] * [VOC Solvent Usage Limitation (tons/yr)]
 Limited PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]
 Limited PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]
 *Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehs.com/publications/catalog/contents/tph.htm>

Abbreviations

VOC = Volatile Organic Compounds
 PTE = Potential to Emit

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

Company Name: MAC Construction and Excavating Inc.
Source Address: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Reviewer: Jack Harmon

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

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

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

Volatile Organic Compounds

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

Hazardous Air Pollutants

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%	
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0%	Xylenes
Limited PTE of Total HAPs (tons/yr) =	0.00	
Limited PTE of Single HAP (tons/yr) =	0.00	Xylenes

Methodology

The gasoline throughput was provided by the source.

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

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

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

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

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2.

Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at:

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

Abbreviations

VOC = Volatile Organic Compounds

PTE = Potential to Emit

Appendix A.3: Emissions Calculations
Fuel Equivalency Calculations (Residual Oil is the main fuel)
Fuel Combustion Units with Maximum Capacity > 100 MMBtu/hr

Company Name: MAC Construction and Excavating, Inc.
Address City IN Zip: 1417 Quarry Road, Jeffersonville, Indiana 47130
Permit Number: 019-28936-05282
Plt ID: 019-05282
Reviewer: Jack Harmon

*Note: these equivalencies are related back to Residual Fuel Oil (assumed to be the predominant fuel used at this source).

Fuel Type	SO2 Equivalency						NOx Equivalency			
	* Limited Sulfur Content	Limited Sulfur Content Units	AP-42 Emission Factor	Emission Factor Units	Fuel Equivalency	Fuel Equivalency Units	AP-42 Emission Factor	Emission Factor Units	Fuel Equivalency	Fuel Equivalency Units
Natural Gas	NA	NA	0.6	lb/MMCF	0.131	MMCF natural gas per gal residual fuel oil	190	lb/MMCF	0.00025	MMCF natural gas per gal residual fuel oil
No. 2 Fuel Oil	NA	% by weight		lb/kgal		gal No. 2 fuel oil per gal residual fuel oil	24.0	lb/kgal	1.96	gal No. 2 fuel oil per gal residual fuel oil
No. 4 Fuel Oil	0.50	% by weight	75.00	lb/kgal	1.05	gal No. 4 fuel oil per gal residual fuel oil	47.0	lb/kgal	1.00	gal No. 4 fuel oil per gal residual fuel oil
Residual (No. 5 or No. 6) Fuel Oil	0.50	% by weight	78.50	lb/kgal	1.00	gal residual fuel oil per gal residual fuel oil	47.0	lb/kgal	1.00	gal residual fuel oil per gal residual fuel oil
Propane	0.00	gr/100 ft3 sulfur		lb/kgal		gal propane per gal residual fuel oil	13.0	lb/kgal	3.62	gal propane per gal residual fuel oil
Butane	0.00	gr/100 ft3 sulfur		lb/kgal		gal butane per gal residual fuel oil	15.0	lb/kgal	3.13	gal butane per gal residual fuel oil
Waste Oil	0.47	% by weight	69.09	lb/kgal	1.14	gal waste oil per gal residual fuel oil	19.0	lb/kgal	2.47	gal waste oil per gal residual fuel oil
Diesel Engine Oil	NA	NA		lb/kgal		gal diesel engine oil per gal residual fuel oil	617.4	lb/kgal	0.076	gal diesel engine oil per gal residual fuel oil

Methodology

Fuel Equivalency = [AP-42 Emission Factor for residual fuel oil (lb/kgal)] / [AP-42 Emission Factor for any fuel type (lb/kgal or lb/MMCF)]

* Limited Sulfur Content - see Page 2 of Appendix A.2

Sources of AP-42 Emission Factors for fuel combustion:

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

No. 2, No.4, and residual fuel oil (industrial boiler > 100 MMBtu/hr): AP-42 Chapter 1.3 (dated 9/98), Table 1.3-1

Propane and Butane (industrial boiler 10 to 100 MMBtu/hr): AP-42 Chapter 1.5 (dated 10/96), Table 1.5-1

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

Diesel Engine Oil: AP-42 Chapter 3.3 (dated 10/96), Table 3.3-1



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: September 16, 2010

RE: Mac Construction and Excavating, Inc. / 019-28936-05282

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

In order to conserve paper and reduce postage costs, IDEM's Office of Air Quality is now sending many permit decisions on CDs in Adobe PDF format. The enclosed CD contains information regarding the company named above.

This permit is also available on the IDEM website at:
<http://www.in.gov/ai/appfiles/idem-caats/>

If you would like to request a paper copy of the permit document, please contact IDEM's central file room at:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

Please Note: *If you feel you have received this information in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV.*

Enclosures
CD Memo.dot 11/14/08



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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

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

TO: Richard Downs
MAC Construction & Excavating, Inc.
PO Box 6787
New Albany, IN 47151

DATE: September 16, 2010

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

SUBJECT: Final Decision
Federally Enforceable State Operating Permit Renewal
019-28936-05282

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:
Chad M Unruh - President
Jennifer Triplett – Environmental Compliance Source
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07



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

September 16, 2010

TO: Jeffersonville Township Public Library

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

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

Applicant Name: MAC Construction and Excavating, Inc.
Permit Number: 019-28936-05282

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

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

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	GHOTOPP 9/16/2010 MAC Construction & Excavating, Inc 019-28936-05282 Final		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING	
Name and address of Sender		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		Richard Downs MAC Construction & Excavating, Inc PO Box 6787 New Albany IN 47151 (Source CAATS) via confirmed delivery										
2		Chad M Unruh President MAC Construction & Excavating, Inc PO Box 6787 New Albany IN 47151 (RO CAATS)										
3		Ms. Rhonda England 17213 Persimmon Run Rd Borden IN 47106-8604 (Affected Party)										
4		Ms. Betty Hislip 602 Dartmouth Drive, Apt 8 Clarksville IN 47129 (Affected Party)										
5		Mrs. Sandy Banet 514 Haddox Rd Henryville IN 47126 (Affected Party)										
6		Jeffersonville City Council and Mayors Office 500 Quarter Master Jeffersonville IN 47130 (Local Official)										
7		Jeffersonville Twp Public 211 E Court Ave, P.O. Box 1548 Jeffersonville IN 47131-1548 (Library)										
8		Mr. Robert Bottom Paddlewheel Alliance P.O. Box 35531 Louisville KY 40232-5531 (Affected Party)										
9		Clark County Board of Commissioners 501 E. Court Avenue Jeffersonville IN 47130 (Local Official)										
10		James Davin 4259 Sunrise Drive Sellersburg IN 47172 (Affected Party)										
11		Lucy Klingsmith 5143 South State Road 203 Nabb IN 47147 (Affected Party)										
12		Clark County Health Department 1320 Duncan Avenue Jeffersonville IN 47130-3723 (Health Department)										
13		Jennifer Triplett Environmental Compliance Source PO Box 6849 New Albany IN 47151 (Consultant)										
14		Charles Hanka Jefferson Mobile Home Court, Inc. 502 Kopp Lane Clarksville IN 47129 (Affected Party)										
15		Lynne C. Devers 1800 Dutch Lande #36 Jeffersonville IN 47130 (Affected Party)										

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.
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1		Teri 39 Sycamore Road Jeffersonville IN 47130 (Affected Party)										
2		Michael Adams 5522 Buckthorne Dr Jeffersonville IN 47130 (Affected Party)										
3		Trish Roehm 514 Camp Creek Road New Washington IN 47162 (Affected Party)										
4		David Roy 1501 Utica Pike Jeffersonville IN 47130 (Affected Party)										
5		Teresa Fisher 222 West Chestnut Street Jeffersonville IN 47130 (Affected Party)										
6		Pat Barrow 1800 Dutch Ln #75 Jeffersonville IN 47130 (Affected Party)										
7		Laura M. Hale 1800 Dutch Ln #145 Jeffersonville IN 47130 (Affected Party)										
8		Barbara Lefler 1800 Dutch Ln # 147 Jeffersonville IN 47130 (Affected Party)										
9		Carolyn Finn 1800 Dutch Ln #112 Jeffersonville IN 47130 (Affected Party)										
10		Joyce Haworth 1800 Dutch Ln #92 Jeffersonville IN 47130 (Affected Party)										
11		Edwin J & Norma J Hentchel 1800 Dutch Ln # 90 Jeffersonville IN 47130 (Affected Party)										
12		Janice & Orville Parrott 1800 Dutch Ln #99 Jeffersonville IN 47130 (Affected Party)										
13		Shirley Samson 1800 Dutch Ln #91 Jeffersonville IN 47130 (Affected Party)										
14		Janet Welch 1800 Dutch Ln #105 Jeffersonville IN 47130 (Affected Party)										
15		Carolyn & James Fisher 1800 Dutch Ln #60 Jeffersonville IN 47130 (Affected Party)										

Total number of pieces Listed by Sender 15	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.
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1		Inez & Charles 1800 Dutch Ln #79 Jeffersonville IN 47130 (Affected Party)										
2		Leanne Perro 1800 Dutch Ln #64 Jeffersonville IN 47130 (Affected Party)										
3		Barbara Bauerla 1800 Dutch Ln #65 Jeffersonville IN 47130 (Affected Party)										
4		Patricia A. LeVore 1800 Dutch Ln #67 Jeffersonville IN 47130 (Affected Party)										
5		Tina Lee Wease 1800 Dutch Ln #69 Jeffersonville IN 47130 (Affected Party)										
6		Myrna & Howard Goldman 1800 Dutch Ln #74 Jeffersonville IN 47130 (Affected Party)										
7		Phyliss M. & Everett Hogan 1800 Dutch Ln #78 Jeffersonville IN 47130 (Affected Party)										
8		Herbert E. Geiber 1800 Dutch Ln # 77 Jeffersonville IN 47130 (Affected Party)										
9		Jean Montgomery 1800 Dutch Ln #80 Jeffersonville IN 47130 (Affected Party)										
10		Steve Strutz 1800 Dutch Ln # 81 Jeffersonville IN 47130 (Affected Party)										
11		Ralph Barrer 1800 Dutch Ln #83 Jeffersonville IN 47130 (Affected Party)										
12		Lois Cowan 1800 Dutch Ln #87 Jeffersonville IN 47130 (Affected Party)										
13		William & Mary Bagshaw 1800 Dutch Ln #114 Jeffersonville IN 47130 (Affected Party)										
14		David R. Apple 1800 Dutch Ln #107 Jeffersonville IN 47130 (Affected Party)										
15		Lynne C Dumurs 1800 Dutch Ln #36 Jeffersonville IN 47130 (Affected Party)										

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1		Dale 1800 Dutch Ln #38 Jeffersonville IN 47130 (Affected Party)										
2		Ivan Prince & Barbara Pekins-Prince 1800 Dutch Ln # 51 Jeffersonville IN 47130 (Affected Party)										
3		Christopher Smith 1800 Dutch Ln #34 Jeffersonville IN 47130 (Affected Party)										
4		Barbara Wade 1800 Dutch Ln #29 Jeffersonville IN 47130 (Affected Party)										
5		Viola M Pressell 1800 Dutch Ln #75 Jeffersonville IN 47130 (Affected Party)										
6		Joan Hartell Lot #44 Jeffers Court Jeffersonville IN 47130 (Affected Party)										
7		Roy & Avis Pollard 1800 Dutch Ln #40 Jeffersonville IN 47130 (Affected Party)										
8		Barbara S Ward 1800 Dutch Ln #25 Jeffersonville IN 47130 (Affected Party)										
9		Gus & Kathy Coleman 1800 Dutch Ln #39 Jeffersonville IN 47130 (Affected Party)										
10		Ruth A. M. Kinney 1800 Dutch Ln #106 Jeffersonville IN 47130 (Affected Party)										
11		David L. Sizemore 1800 Dutch Ln #106 Jeffersonville IN 47130 (Affected Party)										
12		Bette J Murphy 1800 Dutch Ln #97 Jeffersonville IN 47130 (Affected Party)										
13		Barbara R Fible 1800 Dutch Ln #111 Jeffersonville IN 47130 (Affected Party)										
14		Norma Armstrong 1800 Dutch Ln #109 Jeffersonville IN 47130 (Affected Party)										
15		Lorraine T. Forest 1800 Dutch Ln #96 Jeffersonville IN 47130 (Affected Party)										

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.
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1		Carole & Kathleen 1800 Dutch Ln #104 Jeffersonville IN 47130 (Affected Party)										
2		Louis Evans 1800 Dutch Ln # 73 Jeffersonville IN 47130 (Affected Party)										
3		Brad Barrow 1800 Dutch Ln #75 Jeffersonville IN 47130 (Affected Party)										
4		Teresa Jo Foster 1126 Cedarview Dr Jeffersonville IN 47130 (Affected Party)										
5		Brent & Alisan Scales 5800 Concord Crt Jeffersonville IN 47130 (Affected Party)										
6		John L Hubert 1800 Dutch Ln #58 Jeffersonville IN 47130 (Affected Party)										
7		Aland Smith 1800 Dutch Ln #100 Jeffersonville IN 47130 (Affected Party)										
8		Louis C. & Norma Hutt 2121 E 10th Jeffersonville IN 47130 (Affected Party)										
9		Mike Moore 3101 Old Tay Bridge Jeffersonville IN 47130 (Affected Party)										
10		Sherrin L. & Michael W Hutt 2123 E 10th Street Jeffersonville IN 47130 (Affected Party)										
11		Jerry M McDonough 219 E Park Place Jeffersonville IN 47130 (Affected Party)										
12		Kathy & Timothy Gelback 2713 Veterans Pkwy Jeffersonville IN 47130 (Affected Party)										
13		Betty Gelback 2805 Veterans Pkwy Jeffersonville IN 47130 (Affected Party)										
14		Richard D VanGilder 903 Beagle Club Rd Underwood IN 47177 (Affected Party)										
15		Bruce Dellak 3204 Old Tay Bridge Jeffersonville IN 47130 (Affected Party)										

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.
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1		Steve & Sonja 5013 Highway 62 Jeffersonville IN 47130 (Affected Party)										
2		Aaron Hanka 502 Kopp Ln Clarksville IN 47129 (Affected Party)										
3		Moses Pimira 1314 E 9th Street Jeffersonville IN 47130 (Affected Party)										
4		David & Helen Areusman 914 Poplar Drive Jeffersonville IN 47130 (Affected Party)										
5		Denise & Bruce Jeffris 913 Poplar Drive Jeffersonville IN 47130 (Affected Party)										
6		James & Patricia Lindsey 915 Poplar Jeffersonville IN 47130 (Affected Party)										
7		Candi Gilles 914 Sycamore Drive Jeffersonville IN 47130 (Affected Party)										
8		J Hublar 904 Main Street Jeffersonville IN 47130 (Affected Party)										
9		Jeff & Connie Miller 1042 Main Street Jeffersonville IN 47130 (Affected Party)										
10		Sonja Hagler 1800 Dutch Ln Jeffersonville IN 47130 (Affected Party)										
11		Diana & Rick Brown 1800 Dutch Ln Jeffersonville IN 47130 (Affected Party)										
12		Mildred Gordon 1800 Dutch Ln #1 Jeffersonville IN 47130 (Affected Party)										
13		Judy Bly 1800 Dutch Ln #2 Jeffersonville IN 47130 (Affected Party)										
14		Mary E Celford 1800 Dutch Ln #3 Jeffersonville IN 47130 (Affected Party)										
15		Erin & Mayarie Dauer 1800 Dutch Ln #4 Jeffersonville IN 47130 (Affected Party)										

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.
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1		William D 1800 Dutch Ln #7 Jeffersonville IN 47130 (Affected Party)										
2		Tammy Lewis 1800 Dutch Ln #7 Jeffersonville IN 47130 (Affected Party)										
3		Suzanne Jordan 1800 Dutch Ln #8 Jeffersonville IN 47130 (Affected Party)										
4		Rena & Gene Richie 1800 Dutch Ln #9 Jeffersonville IN 47130 (Affected Party)										
5		Leah Robinson & Colle Kidd 1800 Dutch Ln #27 Jeffersonville IN 47130 (Affected Party)										
6		Hattie B Pimmell 1800 Dutch Ln #28 Jeffersonville IN 47130 (Affected Party)										
7		Shirley & Mary F. Shroud 1800 Dutch Ln #42 Jeffersonville IN 47130 (Affected Party)										
8		Patsy J. Brown 1800 Dutch Ln #50 Jeffersonville IN 47130 (Affected Party)										
9		Alex Shepherd 1800 Dutch Ln #52 Jeffersonville IN 47130 (Affected Party)										
10		Paul & Susie Grooms 1800 Dutch Ln #54 Jeffersonville IN 47130 (Affected Party)										
11		Carole & J. Bruce Scales 1200 Dutch Ln #101 Jeffersonville IN 47130 (Affected Party)										
12		Jean Hale 1800 Dutch Ln #76 Jeffersonville IN 47130 (Affected Party)										
13		Jo Ann & Clark R Garrett 1800 Dutch Ln #89 Jeffersonville IN 47130 (Affected Party)										
14		Bobbie Sue Muse 1800 Dutch Ln #98 Jeffersonville IN 47130 (Affected Party)										
15		Melissa Flynn & Ilene Mc Clu 1800 Dutch LN #103 Jeffersonville IN 47130 (Affected Party)										

Total number of pieces Listed by Sender 15	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.
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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		Ralph 1800 Dutch Ln #115 Jeffersonville IN 47130 (Affected Party)										
2		Shirley Campbell 1800 Dutch Ln #122 Jeffersonville IN 47130 (Affected Party)										
3		Ethel Ashley 1800 Dutch Ln #123 Jeffersonville IN 47130 (Affected Party)										
4		Dottie Askren 1800 Dutch Ln #124 Jeffersonville IN 47130 (Affected Party)										
5		Mildred Lambert 1800 Dutch Ln #127 Jeffersonville IN 47130 (Affected Party)										
6		Kathryn Davis 1800 Dutch Ln #130 Jeffersonville IN 47130 (Affected Party)										
7		Dianne & Charles Roberson 1800 Dutch Ln #131 Jeffersonville IN 47130 (Affected Party)										
8		Paul L. Grubbs 1800 Dutch Ln #132 Jeffersonville IN 47130 (Affected Party)										
9		Betty L. Helling 1800 Dutch Ln #133 Jeffersonville IN 47130 (Affected Party)										
10		Theodore G. Hagler 1800 Dutch Ln #141 Jeffersonville IN 47130 (Affected Party)										
11		Ruth Hall 1800 Dutch Ln #144 Jeffersonville IN 47130 (Affected Party)										
12		Jason Bradford 1027 Main Street Jeffersonville IN 47130 (Affected Party)										
13		Pual Wahl 1029 Main Street Jeffersonville IN 47130 (Affected Party)										
14		Dileen Stemler 1035 Main Street Jeffersonville IN 47130 (Affected Party)										
15		Timoty S. & Linda Mackison 1034 Main Street Jeffersonville IN 47130 (Affected Party)										

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1		Paulin G. 1045 Main Street Jeffersonville IN 47130 (Affected Party)										
2		Jeffrey D Hall 1043 Main Street Jeffersonville IN 47130 (Affected Party)										
3		Robert Basham 1049 Main Street Jeffersonville IN 47130 (Affected Party)										
4		Jim Hall 702 Dogwood Rd. Jeffersonville IN 47130 (Affected Party)										
5		Steve & Barbara Nifong 1106 Windsor Drive Jeffersonville IN 47130 (Affected Party)										
6		Raymond Hauk 1306 Wall Street Apt 512 Jeffersonville IN 47130 (Affected Party)										
7		Donna Wrimer 1016 Pratt Street Jeffersonville IN 47130 (Affected Party)										
8		Betty Hill 7213 Greensprings #7 Jeffersonville IN 47130 (Affected Party)										
9		Laurie & Denis Langfl 1012 Springdale Drive Jeffersonville IN 47130 (Affected Party)										
10		Heidi Singer & Justin Langford 1018 Springdale Drive Jeffersonville IN 47130 (Affected Party)										
11		Bill Morison 708 Utica Charlestown Jeffersonville IN 47130 (Affected Party)										
12		Alan W. Birchfield 1011 Allison Ln Jeffersonville IN 47130 (Affected Party)										
13		Kathy Casey 1501 E. 8th Street Jeffersonville IN 47130 (Affected Party)										
14		Linda Dekard 1031 Youngstown Center Jeffersonville IN 47130 (Affected Party)										
15		Donnie Sewell 1979 Blue Teal Ln Jeffersonville IN 47130 (Affected Party)										

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1		Bob & Carol 2060 Cardinal Ln Jeffersonville IN 47130 (Affected Party)										
2		Drue Rice PO Box 159 Lanesville IN 47136 (Affected Party)										
3		Barbara Chapman 3005 Mcarthur Way Jeffersonville IN 47130 (Affected Party)										
4		Sandra Brown 2051 Cardinal Ln Jeffersonville IN 47130 (Affected Party)										
5		Candy Narron 2053 Cardinal Ln Jeffersonville IN 47130 (Affected Party)										
6		Juanita Blanton 2049 Cardinal Ln Jeffersonville IN 47130 (Affected Party)										
7		Jenni Griffen 2926 Meadowlark Road Jeffersonville IN 47130 (Affected Party)										
8		Lisa Gill 2048 Cardinal Ln Jeffersonville IN 47130 (Affected Party)										
9		William Noel 711 old Salem Rd Jeffersonville IN 47130 (Affected Party)										
10		Don Hall 1023 Coots Ave. Jeffersonville IN 47130 (Affected Party)										
11		John Noel 536 Webster Blvd Jeffersonville IN 47130 (Affected Party)										
12		Christy Johnson 3620 Blueberry Way Jeffersonville IN 47130 (Affected Party)										
13		William Reneue 1106 Cedar View Drive Jeffersonville IN 47130 (Affected Party)										
14		Paul Carroll 1110 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
15		Larry Ping 1200 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										

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1		Joni 1117 Cedarview Dr Jeffersonville IN 47130 (Affected Party)										
2		Marvin Hardin 1121 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
3		Alice Eddings 1135 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
4		James Taylor 1129 Ceaderview Drive Jeffersonville IN 47130 (Affected Party)										
5		Jeanie Schweitzer 1137 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
6		Murrel Anne Schweitzer 1133 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
7		Lillian Duncan 1205 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
8		Katherine L. Olin 1210 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
9		Darrin R Bowyer 1228 Ceaderview Drive Jeffersonville IN 47130 (Affected Party)										
10		Lorrie Stevens 1229 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
11		Roberta L Stein 1233 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
12		Angela Laslie 1207 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
13		Annette Grinestaff 1203 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
14		Holly Pope & Shane Smith 1211 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
15		Reida C & Gary Hale 1221 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										

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1		Tina & Bobby 1223 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
2		Matt Vaughn 1207 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
3		Robert D Callins 1225 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
4		Lynn Jones 2613 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
5		Brandon Jackson 2603 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
6		Torrie Coffee 1212 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
7		Jeremy Johnson 1214 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
8		Rudolph Shephard 1216 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
9		Felicia Wilkey 1206 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
10		Jeff & Lisa Ford 2604 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
11		William & Elizabeth Elliott 2610 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
12		Alisha Recktenwald 2608 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
13		Walter M. Reed 2606 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
14		Angela & Thomas R. Browne 2602 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
15		Caral Crase 1210 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										

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1		Devon & Bich 1222 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
2		Penny Chester 412 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
3		Jeffrey Washington 306 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
4		Anita Dwight 306 Myrtle St Jeffersonville IN 47130 (Affected Party)										
5		Beverly Laffin 210 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
6		Jeromy Kent, Barbara & Victoria Ballew 112 Myrtle St Jeffersonville IN 47130 (Affected Party)										
7		Raymond Crick 104 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
8		Douglas & Mark Blaney 100 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
9		Linette & Mike Breedlove 301 Woodlawn Ave Jeffersonville IN 47130 (Affected Party)										
10		Luann Boling 211 Woodlawn Ave Jeffersonville IN 47130 (Affected Party)										
11		Betty Donahoo 205 Woodlawn Ave Jeffersonville IN 47130 (Affected Party)										
12		Jimmy Varner 211 Woodlawn Ave Jeffersonville IN 47130 (Affected Party)										
13		Marietta King 303 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
14		Mark & Donna Bishop 305 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
15		Leigh Ann & Donnie Thompson 202 William Street Jeffersonville IN 47130 (Affected Party)										

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.
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1		Shirley 105 William Street Jeffersonville IN 47130 (Affected Party)										
2		James R. Smith Sr. 403 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
3		James & Paula Smith 410 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
4		Melissa Bestock 4103 Pustwick Square Drive New Albany IN 47150 (Affected Party)										
5		Richard Hughs 301 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
6		Myrtle & Rick Payton 318 Myrtle Street (Rear) Jeffersonville IN 47130 (Affected Party)										
7		Robert Balley 105 William Street Jeffersonville IN 47130 (Affected Party)										
8		Betty Keel 45 Center Street Jeffersonville IN 47130 (Affected Party)										
9		Teresa Duval, Rey Wilson & Rosie Martin 16 Carlota Drive Jeffersonville IN 47130 (Affected Party)										
10		James Deck & Christina Hall 413 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
11		Cory Hulsizer 204 Webster Blvd Jeffersonville IN 47130 (Affected Party)										
12		Melissa & Jimmie Wright 205 Mary Street Jeffersonville IN 47130 (Affected Party)										
13		Travis Green & Karice Moore Hill 207 Mary Street Jeffersonville IN 47130 (Affected Party)										
14		Michael Lettman, Sr. 213 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
15		Mark Turner 101 Myrtle Street Jeffersonville IN 47130 (Affected Party)										

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1		Mary Klotz & Jeanie 110 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
2		Jacova Silva 1218 Whitehorse Vale Jeffersonville IN 47130 (Affected Party)										
3		Will Brown 2609 Whitehorse Vale Jeffersonville IN 47130 (Affected Party)										
4		Mark Wunsch 2605 Whitehorse Vale Jeffersonville IN 47130 (Affected Party)										
5		Stephen D Crowe 1227 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
6		Joseph Cope 1218 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
7		Marilyn Cheatham 1214 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
8		Russell Philpott 1124 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
9		William D May 403 Allison Jeffersonville IN 47130 (Affected Party)										
10		Joan L. Egan 1800 Dutch Ln #11 Jeffersonville IN 47130 (Affected Party)										
11		Neal Warren 1800 Dutch Ln #6 Jeffersonville IN 47130 (Affected Party)										
12		Kathy Ritchie 911 Main Street Jeffersonville IN 47130 (Affected Party)										
13		Patti Hertweck 1800 Dutch Ln #95 Jeffersonville IN 47130 (Affected Party)										
14		James Bergin 1800 Dutch Ln #30 Jeffersonville IN 47130 (Affected Party)										
15		Mae Maclaury 1800 Dutch Ln Jeffersonville IN 47130 (Affected Party)										

Total number of pieces Listed by Sender 15	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.
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1		James A 1800 Dutch Ln #86 Jeffersonville IN 47130 (Affected Party)										
2		Juanita Dismang 1800 Dutch Ln #85 Jeffersonville IN 47130 (Affected Party)										
3		Andy Hampton, Sr. 1800 Dutch Ln #84 Jeffersonville IN 47130 (Affected Party)										
4		Jacob L. Haas 1800 Dutch Ln #148 Jeffersonville IN 47130 (Affected Party)										
5		Julie Schuley 1208 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
6		D. Nelson 1800 Dutch Ln #81 Jeffersonville IN 47130 (Affected Party)										
7		R Snely PO Box 271 Jeffersonville IN 47131 (Affected Party)										
8		J Smrize 1800 Dutch Ln #5 Jeffersonville IN 47130 (Affected Party)										
9		Ron Crady 1800 Dutch Ln #33 Jeffersonville IN 47130 (Affected Party)										
10		Glenn Hedrist 1800 Dutch Ln #72 Jeffersonville IN 47130 (Affected Party)										
11		Donald Deware 1800 Dutch Ln #117 Jeffersonville IN 47130 (Affected Party)										
12		Kurt Donoho 1128 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
13		Matthew De Forrest 1202 Whitehorse Vale Drive Jeffersonville IN 47130 (Affected Party)										
14		Jack Sehrozson 206 Myrtle Jeffersonville IN 47130 (Affected Party)										
15		David Douglas 321 Myrtle Street Jeffersonville IN 47130 (Affected Party)										

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1		Paul 1800 Dutch Ln #150 Jeffersonville IN 47130 (Affected Party)										
2		Ron Gilo 1800 Dutch Ln #68 Jeffersonville IN 47130 (Affected Party)										
3		C. L. Francisce 1130 Cedarview Drive Jeffersonville IN 47130 (Affected Party)										
4		Resident 1800 Dutch Ln #125 Jeffersonville IN 47130 (Affected Party)										
5		Marilyn Widman 2222 Centennial Road Toledo OH 43617 (Affected Party)										
6		Jerry & Ellie Harmon 1800 Dutch Ln #110 Jeffersonville IN 47130 (Affected Party)										
7		Mark Crick 100 Myrtle Street Jeffersonville IN 47130 (Affected Party)										
8												
9												
10												
11												
12												
13												
14												
15												

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