



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: February 15, 2007
RE: Brooks Construction Company, Inc. / 033-23354-03303
FROM: Nisha Sizemore
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, Room 1049, 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.dot 03/23/06



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NEW SOURCE REVIEW AND FEDERALLY ENFORCEABLE STATE OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

Brooks Construction Company, Inc (Portable)

(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.

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.

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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-8-11.1, applicable to those conditions

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Issued by: Original signed by Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: February 15, 2007 Expiration Date: February 15, 2012

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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 portable hot mix asphalt plant.

Source Address:	2059 State Road 8 West, Auburn, IN 46706
Mailing Address:	6525 Ardmore Avenue, Ft. Wayne, IN 46809
General Source Phone Number:	(260) 478-1990
SIC Code:	2951
Source Location Status:	Portable (currently in Dekalb)
Source Status:	Attainment for all criteria pollutants, Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset and Nonattainment NSR Rules Minor Source, Section 112 of the Clean Air Act

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

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

- (a) One (1) drum mixer/dryer (ID #2), installed in April 1989, with a maximum capacity of 300 tons per hour. This facility is attached to a knockout box (ID #6) and a baghouse (ID #7) for particulate matter (PM) control, and exhausts through stack SV1;
- (b) One (1) natural gas-fired drum mixer/dryer burner (ID #3), with a maximum heat input rate of 92.5 million (MM) British thermal units (Btu) per hour. This facility uses No. 2 distillate oil, No. 4 fuel oil, No. 5 fuel oil, No. 6 fuel oil and waste oil as back-up fuel, is attached to a knockout box (ID #6) and a baghouse (ID #7), and exhausts through stack SV1;
- (c) One (1) No. 2 diesel fired reciprocating internal combustion engine generator (ID #13), installed in April 1989, with a maximum heat input rate of 4.1 MMBtu per hour, and emitting through stack SV5. This facility is not attached to any add-on control device; and
- (d) cold-mix (stockpile mix) production and storage piles.

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

This portable source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, including one (1) hot oil heater (ID #10), installed in July 1993, rated at 1.5 million (MM) Btu per hour.
- (b) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

- (c) Storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) lb per day of VOC including:
 - (i) One (1) liquid asphalt storage tank (ID #11A), constructed in March 1993, with a maximum storage capacity of 20,000 gallons;
 - (ii) One (1) liquid asphalt storage tank (ID #11B), constructed in 1999, with a maximum storage capacity of 12,000 gallons; and
 - (iii) One (1) liquid asphalt storage tank (ID #11C), constructed in 1999, with a maximum storage capacity of 20,000 gallons;
 - (iv) Two (2) liquid burner fuels tanks, each with a maximum storage capacity of 30,000 gallons;
 - (v) One (1) asphalt storage tank with a maximum storage capacity of 30,000 gallons;
- (d) Sand, crushed stone and reclaimed asphalt pavement storage piles with a maximum total storage capacity of 96,250 tons;
- (e) One (1) testing laboratory as defined in 326 IAC 2-7-1 (21)(D);
- (f) Onsite unpaved roadways [326 IAC 6-4];
- (g) One (1) material conveying and handling operation;
- (h) Two (2) cold feed bins, each with a maximum holding capacity of 200 tons;
- (i) One (1) RAP bin, with a maximum holding capacity of 200, tons.

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

This portable 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 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4] [326 IAC 2-8]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 and 326 IAC 2-8 when prior to the start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

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

- (a) This permit, F033-23354-03303, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-3-3. 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.5 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.6 Enforceability [326 IAC 2-8-6]

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

B.7 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.8 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.9 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

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

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

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

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

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

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

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

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

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

B.14 Emergency Provisions [326 IAC 2-8-12]

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

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

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

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

Facsimile Number: 317-233-6865

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

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

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

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

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

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

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

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

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

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

B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to F033-23354-03303 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.16 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.17 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

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

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

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

B.18 Permit Modification, Reopening, Revocation and Reissuance, or Termination

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

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

B.19 Permit Renewal ~~[326 IAC 2-8-3(h)]~~

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

Request for renewal shall be submitted to:

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

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

B.20 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

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

B.21 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

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

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

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

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

B.23 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC13-30-3-1]

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

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

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

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

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

B.25 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

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

B.26 Advanced Source Modification Approval[326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

- (a) The requirements to obtain a permit modification under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.

- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.27 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also render the requirements of 326 IAC 2-3 (Emission Offset) and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable;
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), when the source is located in any of the following areas:

1. Dearborn County, Lawrenceburg Township
2. Dubois County, Bainbridge Township
3. Marion County, except the area of Washington Township east of Fall Creek and the area of Franklin Township south of Thompson Road and east of Five Points Road.

4. St. Joseph County, the area north of Kern Road and east of Pine Road.
5. Vanderburgh County, the area included in the city of Evansville and Pigeon Township.
6. Vigo County, the area within a five-tenths (0.5) kilometer radius circle centered at UTM Coordinates Zone 16 East four hundred sixty-four and fifty-two hundredths (464.52) kilometers North four thousand three hundred sixty-nine and twenty-one hundredths (4,369.21) kilometers., unless otherwise stated in the permit:

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.

When the source is located in an area of Indiana not listed in (1) through (6) above, opacity shall meet the following, unless otherwise stated in the permit

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

This source shall not re-locate to Lake, Porter, Floyd or Clark Counties.

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

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

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

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

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

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

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on March 11, 1996. The plan is included as Attachment A.

C.8 Stack Height [326 IAC 1-7]

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

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

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

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

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

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

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

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

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

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

- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.
[326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

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

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

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

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

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

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

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

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

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Portable Source Requirement

C.21 Relocation of Portable Sources [326 IAC 2-14-4]

This permit is approved for operation in all areas of Indiana except Lake, Porter, Clark and Floyd counties. This determination is based on the requirements of Prevention of Significant Deterioration in 326 IAC 2-2, and Emission Offset requirements in 326 IAC 2-3. Prior to locating in any severe nonattainment area, the Permittee must submit a request and obtain a permit modification.

Stratospheric Ozone Protection

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

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

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

SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) One (1) drum mixer/dryer (ID #2), installed in April 1989, with a maximum capacity of 300 tons per hour. This facility is attached to a knockout box (ID #6) and a baghouse (ID #7) for particulate matter (PM) control, and exhausts through stack SV1;
- (b) One (1) natural gas-fired drum mixer/dryer burner (ID #3), with a maximum heat input rate of 92.5 million (MM) British thermal units (Btu) per hour. This facility uses No. 2 oil, No. 4 oil, No. 5 oil, No. 6 oil and waste oil as back-up fuels, is attached to a knockout box (ID #6) and a baghouse (ID #7), and exhausts through stack SV1;
- (c) One (1) No. 2 diesel fired reciprocating internal combustion engine generator (ID #13), installed in April 1989, with a maximum heat input rate of 4.1 MMBtu per hour, and emitting through stack SV5. This facility is not attached to any add-on control device.

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

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

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

Pursuant to 40 CFR 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the aggregate dryer (#2) and burner (#3) in accordance with the schedule in 40 CFR 60, Subpart A.

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

Pursuant to CFR Part 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart I, which are incorporated by reference as 326 IAC 12-1 for the aggregate dryer (#2) and burner (#3) as specified as follows:

§ 60.90 *Applicability and designation of affected facility.*

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

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

§ 60.91 *Definitions.*

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

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

§ 60.92 *Standard for particulate matter.*

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

- (1) Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf).
- (2) Exhibit 20 percent opacity, or greater.

§ 60.93 *Test methods and procedures.*

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.92 as follows:

- (1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).
- (2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

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

D.1.3 Particulate Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the aggregate dryer and drum mixer shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf) for particulate matter. Compliance with this limit will also demonstrate compliance with the PM emission limit pursuant to 40 CFR 60.90, Subpart I.

D.1.4 PSD Minor Limit [326 IAC 2-2]

- (a) Particulate matter emissions from the aggregate dryer and mixer shall not exceed 0.228 pound PM per ton of hot mix asphalt produced; and
- (b) The amount of hot mix asphalt produced in the drum mixer and dryer shall not exceed 1,309,846 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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

D.1.5 Particulate Matter (PM₁₀) [326 IAC 2-8-4] [326 IAC 2-2]

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

- (a) PM₁₀ emissions from the aggregate dryer and mixer shall not exceed 0.102 pound PM₁₀ per ton of hot mix asphalt produced; and
- (b) The amount of hot mix asphalt produced in the drum mixer and dryer shall not exceed 1,309,846 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

This will limit the source wide potential to emit PM₁₀ to less than 100 tons per year. Compliance with this limit will satisfy 326 IAC 2-8-4 (FESOP). Therefore, the requirements of 326 IAC 2-7, Part 70, 326 IAC 2-1.1-5 (Nonattainment NSR) and 326 IAC 2-2, Prevention of Significant Deterioration (PSD), do not apply.

D.1.6 Carbon monoxide (CO) [326 IAC 2-8]

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

- (a) CO emissions from the drum mix dryer shall not exceed 0.13 pound of CO per ton of hot mix asphalt produced.
- (a) The amount of hot mix asphalt produced in the drum mixer and dryer shall not exceed 1,309,846 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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

D.1.7 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

- (a) VOC emissions from the drum mix dryer shall not exceed 0.032 pound of VOC per ton of hot mix asphalt produced.
- (b) The amount of hot mix asphalt produced in the drum mixer and dryer shall not exceed 1,309,846 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

This will limit VOC emissions from the drum mix dryer to less than 25 tons per year. Compliance with this limit will render the requirements of 326 IAC 8-1-6 not applicable to this facility.

D.1.8 FESOP Limit [326 IAC 2-8]

Pursuant to 326 IAC 2-8-4, the annual input of No. 2 diesel fuel to the 4.1 MMBtu per hour reciprocating internal combustion engine shall be limited to 187,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limit is required to limit the source's emissions of SO₂ and NO_x to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 (Part 70), and 326 IAC 2-2 (PSD) are not applicable.

D.1.9 Sulfur Dioxide (SO₂) [326 IAC 7-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 92.5 million British thermal units per hour burner for the aggregate drum mix dryer shall be limited to 0.5 pound per MMBtu heat input when using distillate oils and 1.6 pounds per MMBtu when using residual oils. This is equivalent to a maximum allowable sulfur content of (0.5%) for No. 2 distillate fuel oil, (1.4%) for No. 4 fuel oil, (1.5%) for No. 5 fuel oil, (1.6%) for No. 6 fuel oil and (1.5%) for waste oil.

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

D.1.10 Fuel Usage [326 IAC 2-8-4][326 IAC 2-2]

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

- (a) The sulfur content of the No. 2 fuel oil used in the 92.5 MMBtu per hour burner for the aggregate dryer shall not exceed 0.5 % by weight. The sulfur content of the No. 4, No. 5 and No. 6 fuel oils and waste oil used in the 92.5 MMBtu per hour burner for the aggregate dryer shall each not exceed 1.0 % by weight.

- (b) The chlorine content of the waste oil used in the 92.5 MMBtu per hour burner for the aggregate dryer shall not exceed 0.4 percent.
- (c) The input of waste oil with a sulfur content of 1.0 % and a maximum chlorine content of 0.4% in the 92.5 MMBtu per hour burner for the aggregate dryer shall not exceed 750,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, HCl emissions are limited to 9.90 tons per year and source-wide SO₂ emissions are limited to less than 100 tons per year.
- (d) The input of No. 5 fuel oil with a maximum sulfur content of 1.0% and No. 5 fuel oil equivalents to the 92.5 MMBtu per hour burner for the aggregate dryer shall be limited to 1,224,203 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, SO₂ and NO_x emissions are limited to less than 100 tons per year.
- (e) For purposes of determining compliance based on SO₂ emissions, the following shall apply:
 - (1) every million cubic feet (MMCF) of natural gas burned shall be equivalent to 3.8 gallons of No. 5 fuel oil based on SO₂ emissions, such that the total input of No. 5 fuel oil and No. 5 fuel oil equivalent input does not exceed the limit specified;
 - (2) every 1,000 gallons of No. 2 distillate oil burned in the aggregate dryer burner shall be equivalent to 442.7 gallons of No. 5 fuel oil based on SO₂ emissions and a maximum No. 2 distillate oil sulfur content of 0.5% such that the total gallons of No. 5 fuel oil and No. 5 fuel oil equivalent input does not exceed the limit specified;
 - (3) every 1,000 gallons of No. 4 fuel oil burned in the aggregate dryer burner shall be equivalent to 127.4 gallons of No. 5 fuel oil based on SO₂ emissions and a maximum No. 4 distillate oil sulfur content of 1.0% such that the total gallons of No. 5 fuel oil and No. 5 fuel oil equivalent input does not exceed the limit specified;
 - (4) every 1,000 gallons of No. 6 fuel oil burned in the aggregate dryer burner shall be equivalent to 1,000.0 gallons of No. 5 fuel oil based on SO₂ emissions and a maximum No. 6 distillate oil sulfur content of 1.0% such that the total gallons of No. 5 fuel oil and No. 5 fuel oil equivalent input does not exceed the limit specified;
 - (5) every 1,000 gallons of waste oil burned in the aggregate dryer burner shall be equivalent to 936.3 gallons of No. 5 fuel oil based on SO₂ emissions and a maximum waste oil sulfur content of 1.0 % such that the total gallons of No. 5 fuel oil and No. 5 fuel oil equivalent input does not exceed the limit specified.

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

D.1.11 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.1.12 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11][40 CFR 60.93][326 IAC 12]

No later than five (5) years from October 29, 2004, in order to demonstrate compliance with Conditions D.1.2, D.1.3, D.1.4 and D.1.5, the Permittee shall perform PM and PM₁₀ testing for the aggregate dryer/mixer utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C-Performance Testing.

D.1.13 Sulfur Dioxide Emissions, Sulfur Content, and Chlorine Content

- (a) The Permittee shall demonstrate that the chlorine content of the re-refined waste oil does not exceed 0.4% by providing vendor analysis of fuel delivered, accompanied by a vendor certification.

Compliance for sulfur dioxide shall be determined utilizing one of the following options:

- (b) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil, and one and six-tenths (1.6) pounds per million British thermal unit heat input when operating on No. 4 fuel oil, No. 5 fuel oil, No. 6 fuel oil, or waste oil by:
- (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (c) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 92.5 MMBtu per hour burner for the aggregate dryer, 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 (b) through (c) above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.14 Particulate Matter (PM and PM10)

In order to comply with Conditions D.1.2, D.1.3, D.1.4 and D.1.5, the baghouse for particulate control shall be in operation and control emissions from the aggregate dryer/mixer at all times that the aggregate dryer/mixer is in operation.

D.1.15 Visible Emissions Notations

- (a) Daily visible emission notations of the aggregate dryer drum mixer and burner baghouse stack exhaust (SV1), the reciprocating internal combustion engine exhaust, and the conveying, material transfer points, and screening shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.16 Parametric Monitoring

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

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

D.1.17 Broken or Failed Bag Detection

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

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

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

D.1.18 Record Keeping Requirements

- (a) To document compliance with conditions D.1.4, D.1.5, D.1.6, and D.1.7, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the annual throughput limits to the aggregate dryers established in conditions D.1.4, D.1.5, D.1.6, and D.1.7.

- (1) Calendar dates covered in the compliance determination period; and
 - (2) Asphalt mix throughput to the drum mix aggregate dryer per month since the last compliance determination period.
- (b) To document compliance with Condition D.1.8 the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the annual fuel input limit to the reciprocating internal combustion engine established in Condition D.1.8;
- (1) Calendar dates covered in the compliance determination period; and
 - (2) Actual No. 2 fuel oil usage per month since last compliance determination period.
- (c) To document compliance with Conditions D.1.9 and D.1.10, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) below shall be complete and sufficient to establish compliance with the SO₂ emission limits established in Conditions D.1.9 and D.1.10 and the HCl and NO_x emission limit established in Condition D.1.10.
- (1) Calendar dates covered in the compliance determination period;
 - (2) Actual waste oil usage per month since last compliance determination period and equivalent SO₂ and HCl emissions;
 - (3) Actual No. 5 fuel oil usage per month since last compliance determination period and equivalent SO₂ and NO_x emissions; and
 - (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.

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 and chlorine content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and copies of all reports required by this permit.

- (c) The Permittee shall maintain records sufficient to verify compliance with the procedures specified in Condition D.1.13. Records shall be maintained for a period of five (5) years and shall be made available upon request by IDEM, OAQ.
- (d) To document compliance with Condition D.1.15, the Permittee shall maintain daily records of visible emission notations of the aggregate dryer drum mixer and burner baghouse stack exhaust (SV1), the reciprocating internal combustion engine exhaust, and the conveying, material transfer points, and screening.

- (e) To document compliance with Condition D.1.16, the Permittee shall maintain daily records of the pressure drop.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.18 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.4, D.1.5, D.1.6, D.1.7, D.1.8, and D.1.10 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

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

- (a) cold-mix (stockpile mix) production and storage piles;

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

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

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

- (a) Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), the use of cutback asphalt or asphalt emulsion shall not contain more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:
- (1) Penetrating prime coating
 - (2) Stockpile storage
 - (3) Application during the months of November, December, January, February and March.
- (b) The VOC solvent used as diluent in the liquid binder used in cold mix asphalt production from the plant shall be limited such that no more than 62.90 tons of VOC emissions emitted per twelve (12) consecutive months. This shall be achieved by limiting the total VOC solvent of any one selected binder to not exceed the stated limit for that binder during the last twelve (12) months. When more than one binder is used, the formula below must be applied so that the total VOC emitted does not exceed 62.90 tons per twelve (12) consecutive month period.
- Liquid binders used in the production of cold mix asphalt shall be defined as follows:
- (1) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.
 - (2) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.
 - (3) Cut back asphalt slow cure, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.
 - (4) Emulsified asphalt with solvent, containing a maximum of 15% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume
 - (5) Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating
- (c) The liquid binder used in cold mix asphalt production shall be limited as follows:

- (1) Cutback asphalt rapid cure liquid binder usage shall not exceed 66.21 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (2) Cutback asphalt medium cure liquid binder usage shall not exceed 89.86 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (3) Cutback asphalt slow cure liquid binder usage shall not exceed 251.61 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (4) Emulsified asphalt with solvent liquid binder usage shall not exceed 135.56 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (5) Other asphalt with solvent liquid binder shall not exceed 2516.05 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (6) The VOC solvent allotments in subpart (c)(1) through (c)(5) of this condition shall be adjusted when more than one type of binder is used per twelve (12) month consecutive period rolled on a monthly basis. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment ratio listed in the table that follows.

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	
emulsified asphalt		2.04	
other asphalt		38	

The equivalent total tons of VOC of the combined liquid binders shall be less than 62.90 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

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

D.2.2 Record Keeping Requirements

To document compliance with Condition D.2.1(b) and (c), the Permittee shall maintain records in accordance with (a) through (d) below. Records maintained for (a) through (d) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.2.1(b) and (c).

- (a) Calendar dates covered in the compliance determination period;
- (b) Asphalt binder usage per month since the last compliance determination period;
- (c) VOC solvent content by weight of the asphalt binder used each month; and

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

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

D.2.3 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1(b) and (c) 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).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Brooks Construction Company Inc.
Source Address: Portable (currently at 2059 State Road 8 West, Auburn, IN 46706)
Mailing Address: 6525 Ardmore Avenue, Ft. Wayne, IN 46809
FESOP No.: F033-23354-03303

**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 BRANCH
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

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

Source Name: Brooks Construction Company Inc.
Source Address: Portable (currently at 2059 State Road 8 West, Auburn, IN 46706)
Mailing Address: 6525 Ardmore Avenue, Ft. Wayne, IN 46809
FESOP No.: F033-23354-03303

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: Brooks Construction Company Inc.
 Source Address: Portable (currently at 2059 State Road 8 West, Auburn, IN 46706)
 Mailing Address: 6525 Ardmore Avenue, Ft. Wayne, IN 46809
 FESOP No.: F033-23354-03303
 Facility: Drum mixer and dryer
 Parameter: Throughput
 Limit: The amount of hot mix asphalt produced in the drum mixer and dryer shall not exceed 1,309,846 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 Hot mix asphalt production (tons)	Previous 11 Months Hot mix asphalt production (tons)	12 Month Total Hot mix asphalt production (tons)
Month 1			
Month 2			
Month 3			

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

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Brooks Construction Company Inc.
 Source Address: Portable (currently at 2059 State Road 8 West, Auburn, IN 46706)
 Mailing Address: 6525 Ardmore Avenue, Ft. Wayne, IN 46809
 FESOP No.: F033-23354-03303
 Facility: 4.1 MMBtu per hour reciprocating internal combustion engine generator (ID #13)
 Parameter: No. 2 distillate fuel oil usage limit
 Limit: the annual input of No. 2 diesel fuel to the 4.1 MMBtu per hour reciprocating internal combustion (RIC) engine shall be limited to 187,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limit is required to limit the source's emissions of all regulated pollutants, except PM, to less than 100 tons per year. PM emissions are limited to less than 250 tons per year.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	No. 2 fuel oil input to RIC engine This Month (gallons)	No. 2 fuel oil input to RIC engine 11 Months (gallons)	No. 2 fuel oil input to RIC engine 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: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Brooks Construction Company Inc.
 Source Address: Portable (currently at 2059 State Road 8 West, Auburn, IN 46706)
 Mailing Address: 6525 Ardmore Avenue, Ft. Wayne, IN 46809
 FESOP No.: F033-23354-03303
 Facility: 92.5 MMBtu per hour burner for the aggregate dryer
 Parameter: Waste oil usage limit to limit SO₂ and HCl emissions
 Limit: The input of re-refined waste oil with a limited sulfur content of 1.0% and a maximum chlorine content of 0.4% in the 92.5 MMBtu per hour burner for the aggregate dryer shall not exceed 750,000 gallons 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
	Re-refined waste oil Usage This Month (gallons)	Re-refined waste oil Usage Previous 11 Months (gallons)	12 Month Total Re-refined waste oil Usage (gallons)
Month 1			
Month 2			
Month 3			

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

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Brooks Construction Company Inc.
 Source Address: Portable (currently at 2059 State Road 8 West, Auburn, IN 46706)
 Mailing Address: 6525 Ardmore Avenue, Ft. Wayne, IN 46809
 FESOP No.: F033-23354-03303
 Facility: 92.5 MMBtu per hour burner for the aggregate dryer
 Parameter: No. 5 distillate fuel oil usage limit SO₂ emissions
 Limit: The input of No. 5 fuel oil with a maximum sulfur content of 1.0% and No. 5 fuel oil equivalents to the 92.5 MMBtu per hour burner for the aggregate dryer shall be limited to 1,224,203 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, every million cubic feet (MMCF) of natural gas burned shall be equivalent to 3.8 gallons of No. 5 fuel oil, every 1,000 gallons of No. 2 distillate oil burned in the aggregate dryer burner shall be equivalent to 442.7 gallons of No. 5 fuel oil, every 1,000 gallons of No. 4 fuel oil burned in the aggregate dryer burner shall be equivalent to 127.4 gallons of No. 5 fuel oil, every 1,000 gallons of No. 6 fuel oil burned in the aggregate dryer burner shall be equivalent to 1,000.0 gallons of No. 5 fuel oil, every 1,000 gallons of waste oil burned in the aggregate dryer burner shall be equivalent to 936.3 gallons of No. 5 fuel oil. This limit is equivalent to SO₂ emissions of less than 100 tons per year.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	No. 5 fuel oil and equivalents usage This Month (gallons)	No. 5 fuel oil and equivalents usage Previous 11 Months (gallons)	12 Month Total No. 5 fuel oil and equivalents usage (gallons)
Month 1			
Month 2			
Month 3			

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

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Brooks Construction Company Inc.
 Source Address: Portable (currently at 2059 State Road 8 West, Auburn, IN 46706)
 Mailing Address: 6525 Ardmore Avenue, Ft. Wayne, IN 46809
 FESOP No.: F033-23354-03303
 Facility: Cold-mix asphalt storage piles
 Parameter: VOC
 Limit:

- (a) Cutback asphalt rapid cure liquid binder usage shall not exceed 66.21 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (b) Cutback asphalt medium cure liquid binder usage shall not exceed 89.86 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (c) Cutback asphalt slow cure liquid binder usage shall not exceed 251.61 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (d) Emulsified asphalt with solvent liquid binder usage shall not exceed 135.56 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (e) Other asphalt with solvent liquid binder shall not exceed 2516.05 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

YEAR:

The following liquid binder solvent was the only liquid binder solvent used over the previous 12 month period: _____ Limit applicable: _____
 (use of more than one binder requires the use of the "Multiple Liquid Binder Solvents" report form)

Month	Column 1	Column 2	Column 1 + Column 2
	Solvent usage	Solvent usage	Solvent usage
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)
Month 1			
Month 2			
Month 3			

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

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

Attach a signed certification to complete this report.

**INDIA NA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE BRANCH
 AND EVANSVILLE EPA
 Multiple Liquid Binder Solvent Quarterly Report**

Source Name: Brooks Construction Company Inc
Initial Source Address: Portable (currently at 2059 State Road 8 West, Auburn, IN 46706)
Mailing Address: 6525 Ardmore Avenue, Ft. Wayne, IN 46809
FESOP No.: F033-23354-03303
Facility: Cold-mix asphalt storage piles
Parameter: VOC
Limit: 62.90 tons per year
Year:

Month	Type of Liquid binder	Solvent Usage This Month (tons)	Divisor	VOC emitted This Month (tons) for each solvent	VOC emitted This Month (tons)	VOC emitted Previous 11 Months (tons)	This month + Previous 11 months =VOC emitted 12 Month Total(tons)
Month 1	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
Month 2	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
Month 3	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.

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

Attach a signed certification to complete this report.

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Brooks Construction Company Inc.
 Source Address: Portable (currently at 2059 State Road 8 West, Auburn, IN 46706)
 Mailing Address: 6525 Ardmore Avenue, Ft. Wayne, IN 46809
 FESOP No.: F033-23354-03303

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<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: _____

Attach a signed certification to complete this report.

Mail to: Permit Administration & Development Section
Office Of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

Brooks Construction Company
Portable (currently at 2059 State Road 8 West, Auburn, IN 46706)

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____.
(Title) (Company Name)
3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)
4. I hereby certify that Brooks Construction Company, Portable (currently at 2059 State Road 8 West, Auburn, IN 46706), completed construction of the addition of Nos. 4, 5, 6 and waste oils as backup fuels to the 92.5 MMBtu aggregate burner in conformity with the requirements and intent of the Federally Enforceable Source Operating Permit application received by the Office of Air Quality on July 13, 2006 and as permitted pursuant to FESOP Permit No. 033-23354-03303, Plant ID No. 033-03303

issued on _____.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature

Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of

Indiana on this _____ day of _____, 20 _____.

My Commission expires:

Signature

Name (typed or printed)

Attachment A

ASPHALT PLANT SITE FUGITIVE DUST CONTROL PLAN

- (a) Fugitive particulate matter (dust) emissions from paved roads, unpaved roads, and parking lots shall be controlled by one or more of the following measures:
- (1) Paved roads and parking lots:
 - (A) Cleaning by vacuum sweeping on an as needed basis (monthly at a minimum).
 - (B) Power brooming while wet either from rain or application of water.
 - (2) Unpaved roads and parking lots:
 - (A) Paving with asphalt.
 - (B) Treating with emulsified asphalt on an as needed basis.
 - (C) Treating with water on an as needed basis.
 - (D) Double chip and seal the road surface and maintained on an as needed basis.
- (b) Fugitive particulate matter (dust) emissions from aggregate stockpiles shall be controlled by one or more of the following measures:
- (1) Maintain minimum size and number of stock piles of aggregate.
 - (2) Treating around the stockpile area with emulsified asphalt on an as needed basis.
 - (3) Treating around the stockpile area with water on an as needed basis.
 - (4) Treating the stockpiles with water on an as needed basis.
- (c) Fugitive particulate matter (dust) emissions from outdoor conveying of aggregates shall be controlled by one or more of the following measures:
- (1) Apply water at the feed and the intermediate points on an as needed basis.
- (d) Fugitive particulate matter (dust) emissions from the transferring of aggregates shall be controlled by one or more of the following measures:
- (1) Minimize the vehicular distance between the transfer points.
 - (2) Enclose the transfer points.
 - (3) Apply water on transfer points on an as needed basis.
- (e) Fugitive particulate matter (dust) emissions from transporting of aggregate by truck, front end loader, etc. shall be controlled by one or more of the following measures:
- (1) Tarping the aggregate hauling vehicles.
 - (2) Maintain vehicle bodies in a condition to prevent leakage.
 - (3) Spray the aggregates with water.
 - (4) Maintain a 10 mile per hour (MPH) speed limit in the yard.
- (f) Fugitive particulate matter (dust) emissions from the loading and unloading of aggregate shall be controlled by one or more of the following measures:
- (1) Reduce free fall distance to a minimum.
 - (2) Reduce the rate of discharge of the aggregate.
 - (3) Spray the aggregate with water on an as needed basis.

“An as needed basis” means the frequency or quantity of application necessary to minimize visible particulate matter emissions.

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

**Addendum to the
Technical Support Document (TSD) for a New Source Review and Federally
Enforceable State Operating Permit (FESOP) Renewal**

Source Background and Description

Source Name:	Brooks Construction Company, Inc
Source Location:	2059 State Road 8 West, Auburn, IN 46706
County:	Dekalb
SIC Code:	2851
Operation Permit No.:	F033-23354-03303
Permit Reviewer:	Julia Handley/EVP

On December 27, 2006, the Office of Air Quality (OAQ) had a notice published in the Auburn Evening Star, Auburn, Indiana, stating that Brooks Construction Company, Inc had applied for the renewal of a Federally Enforceable State Operating Permit (FESOP) to operate a portable hot mix asphalt plant and add Nos. 4, 5, 6 and waste oils as backup fuels to the 92.5 MMBtu aggregate dryer burner. The notice also stated that OAQ proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP 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 FESOP should be issued as proposed.

Upon further review IDEM, OAQ has made the following changes to the FESOP (additions in bold, deletions in ~~strikeout~~):

Revision 1:

The Table of Contents was revised according to the proposed changes and subsequent conditions were renumbered if conditions were either added or deleted without replication herein.

Revision 2:

A short term VOC limit has been added to the permit to limit VOC emissions from the drum mix dryer to less than 25 tons per year and render the requirements of 326 IAC 8-1-6 not applicable. The unrestricted potential to emit VOC from the drum mix dryer is 42.05 tons VOC per year. The source has opted to limit the potential to emit of VOC from the drum mix dryer to less than 24.9 tons per year of VOC, based on a limited hot mix asphalt production rate of 1,309,846 tons per year. VOC emissions from the drum mix dryer shall not exceed 0.032 pound of VOC per ton of hot mix asphalt produced. Compliance with this limit will render the requirements of 326 IAC 8-1-6 not applicable. The following changes have been made to the FESOP:

D.1.7 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

-
- (a) **VOC emissions from the drum mix dryer shall not exceed 0.032 pound of VOC per ton of hot mix asphalt produced.**

- (b) **The amount of hot mix asphalt produced in the drum mixer and dryer shall not exceed 1,309,846 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.**

This will limit VOC emissions from the drum mix dryer to less than 25 tons per year. Compliance with this limit will render the requirements of 326 IAC 8-1-6 not applicable to this facility.

D.1.1718 Record Keeping Requirements

- (a) To document compliance with conditions D.1.4, D.1.5, ~~and D.1.6,~~ **and D.1.7**, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the annual throughput limits to the aggregate dryers established in conditions D.1.4, D.1.5, ~~and D.1.6,~~ **and D.1.7.**

- (1) Calendar dates covered in the compliance determination period; and
- (2) Asphalt mix throughput to the drum mix aggregate dryer per month since the last compliance determination period.

- (b) To document compliance with Condition ~~D.1.7~~ **D.1.8** the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the annual fuel input limit to the reciprocating internal combustion engine established in Condition ~~D.1.6~~ **D.1.8**;

- (1) Calendar dates covered in the compliance determination period; and
- (2) Actual No. 2 fuel oil usage per month since last compliance determination period.

- (c) To document compliance with Conditions ~~D.1.8, and D.1.9,~~ **D.1.9 and D.1.10**, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) below shall be complete and sufficient to establish compliance with the SO₂ emission limits established in Conditions ~~D.1.8, and D.1.9,~~ **D.1.9 and D.1.10** and the HCl and NO_x emission limit established in Condition ~~D.1.9,~~ **D.1.10.**

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual waste oil usage per month since last compliance determination period and equivalent SO₂ and HCl emissions;
- (3) Actual No. 5 fuel oil usage per month since last compliance determination period and equivalent SO₂ and NO_x emissions; and
- (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.

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 and chlorine content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and copies of all reports required by this permit.

- (c) The Permittee shall maintain records sufficient to verify compliance with the procedures specified in Condition ~~D.1.12~~ **D.1.13**. Records shall be maintained for a period of five (5) years and shall be made available upon request by IDEM, OAQ.
- (d) To document compliance with Condition ~~D.1.14~~ **D.1.15**, the Permittee shall maintain daily records of visible emission notations of the aggregate dryer drum mixer and burner baghouse stack exhaust (SV1), the reciprocating internal combustion engine exhaust, and the conveying, material transfer points, and screening.
- (e) To document compliance with Condition ~~D.1.15~~ **D.1.16**, the Permittee shall maintain daily records of the pressure drop ~~during normal operation when venting to the atmosphere.~~
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.1819 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.4, D.1.5, D.1.6, D.1.7, **D.1.8**, and ~~D.1.9~~ **D.1.10** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Revision 3:

IDEM has determined that it is no longer necessary to include name and/or title of the authorized individual in the permit. Therefore, condition A.1 - General Information has been revised.

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

The Permittee owns and operates a portable hot mix asphalt plant.

Authorized Individual:	David Fogg, Plant Operations Manager
Source Address:	2059 State Road 8 West, Auburn, IN 46706
Mailing Address:	6525 Ardmore Avenue, Ft. Wayne, IN 46809
General Source Phone Number:	(260) 478-1990
SIC Code:	2951
Source Location Status:	Portable (currently in Dekalb)
Source Status:	Attainment for all criteria pollutants, Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset and Nonattainment NSR Rules Minor Source, Section 112 of the Clean Air Act

Revision 4:

OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

The Unrestricted Potential Emissions discussion paragraph (a) is revised in this addendum as follows:

- (a) The unrestricted potential emissions of PM-10, SO₂, VOC and NO_x are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7. The source will be issued a FESOP because the source will limit its emissions below the Title V levels.

The 326 IAC 8-1-6 (BACT) state rule applicability discussion is revised in this addendum to reflect the hot mix asphalt production limit as follows:

326 IAC 8-1-6 (BACT)

The drum mixer has a limited potential to emit of less than 24.9 tons per year of VOC, based on a limited throughput of ~~1,311,599 tons per year~~ **hot mix asphalt production rate of 1,309,846 tons per year and a VOC emission limit of 0.032 lb per ton of hot mix asphalt produced**, therefore the requirements of 326 IAC 8-1-6 are not applicable.

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

Technical Support Document (TSD) for a New Source Review and Federally Enforceable
State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	Brooks Construction Company, Inc
Source Location:	2059 State Road 8 West, Auburn, IN 46706
County:	Dekalb
SIC Code:	2851
Operation Permit No.:	F033-14037-03303
Operation Permit Issuance Date:	February 8, 2002
Permit Renewal No.:	F033-23354-03303
Permit Reviewer:	Julia Handley/EVP

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Brooks Construction Company, Inc relating to the operation of a portable hot mix asphalt plant and the addition of Nos. 4, 5, 6 and waste oils as backup fuels to the 92.5 MMBtu aggregate burner.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) drum mixer/dryer (ID #2), installed in April 1989, with a maximum capacity of 300 tons per hour. This facility is attached to a knockout box (ID #6) and a baghouse (ID #7) for particulate matter (PM) control, and exhausts through stack SV1;
- (b) One (1) natural gas-fired drum mixer/dryer burner (ID #3), with a maximum heat input rate of 92.5 million (MM) British thermal units (Btu) per hour. This facility uses No. 2 distillate oil, No. 4 fuel oil, No. 5 fuel oil, No. 6 fuel oil and waste oil as back-up fuel, is attached to a knockout box (ID #6) and a baghouse (ID #7), and exhausts through stack SV1;

Note: The source has requested to add No. 4 fuel oil, No. 5 fuel oil, No. 6 fuel oil and waste oil as back up fuels to the already permitted natural gas and No. 2 distillate oil, for the 92.5 MMBtu per hour boiler as part of this FESOP Renewal No. 033-23354-03303.

- (c) One (1) No. 2 diesel fired reciprocating internal combustion engine generator (ID #13), installed in April 1989, with a maximum heat input rate of 4.1 MMBtu per hour, and emitting through stack SV5. This facility is not attached to any add-on control device; and
- (d) cold-mix (stockpile mix) production and storage piles.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, including one (1) hot oil heater (ID #10), installed in July 1993, rated at 1.5 million (MM) Btu per hour.
- (b) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (c) Storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) lb per day of VOC including:
 - (i) One (1) liquid asphalt storage tank (ID #11A), constructed in March 1993, with a maximum storage capacity of 20,000 gallons;
 - (ii) One (1) liquid asphalt storage tank (ID #11B), constructed in 1999, with a maximum storage capacity of 12,000 gallons; and
 - (iii) One (1) liquid asphalt storage tank (ID #11C), constructed in 1999, with a maximum storage capacity of 20,000 gallons;
- (d) One (1) testing laboratory as defined in 326 IAC 2-7-1 (21)(D);
- (e) Sand, crushed stone and reclaimed asphalt pavement storage piles with a maximum total storage capacity of 200,000 tons;
- (f) Onsite unpaved roadways [326 IAC 6-4];
- (g) One (1) material conveying and handling operation;
- (h) Two (2) liquid burner fuel tanks, each with a maximum storage capacity of 30,000 gallons, approved for construction in 2007;
- (i) One (1) liquid asphalt storage tank with a maximum storage capacity of 30,000 gallons, approved for construction in 2007;
- (j) Eight (8) cold feed bins, each with a maximum holding capacity of 200 tons, approved for construction in 2007; and
- (k) Two (2) RAP bins, each with a maximum holding capacity of 200 tons, approved for construction in 2007.

Existing Approvals

The source has been operating under the previous FESOP 033-14037-03303 issued on February 8, 2002, and the following amendments and revisions:

- (a) First Administrative Amendment 033-20128-03303 issued on November 18, 2004

All conditions from previous approvals were incorporated into this FESOP except the following:

D.2.1 Record Keeping Requirements [326 IAC 12] [40 CFR 60.110b, Subpart Kb]

Pursuant to New Source Performance Standard (NSPS), 326 IAC 12 and 40 CFR Part 60.116 Subpart Kb, the Permittee shall maintain accessible records for the life of each volatile liquid storage tank. The records for each tank shall include:

- (a) The date the tank was manufactured,
- (b) The dimensions of the tank,
- (c) An analysis showing the capacity of the tank, and
- (d) For storage tanks #11A and #11C only, the vapor pressure of the VOC stored; indicating the minimum true vapor pressure of the VOC is less than 15 kPa.

Reason not incorporated: Since issuance of FESOP No. F033-14037-03303 on February 8, 2002, the U.S. EPA promulgated amendments to the NSPS, 40 CFR 60, Subpart Kb on October 15, 2003. Therefore, the requirements from the previous version of 40 CFR 60, Subpart Kb, published in the federal register on August 8, 1987 are no longer applicable. The rule now applies to each storage vessel installed after July 23, 1984, with a storage capacity greater than 75 cubic meters (m³), used to store volatile organic liquids. However, pursuant to 40 CFR 60.110b (b), the requirements of 40 CFR 60, Subpart Kb, are not applicable to tanks that have a capacity greater than seventy-five (75) cubic meters, but less than 151 cubic meters, and a maximum true vapor pressure less than 15.0 kilopascals. Tank 11A is not subject to this rule because its capacity is less than 75 cubic meters. And, since each of the remaining tanks at this source have storage capacities greater than seventy-five (75) cubic meters, but less than 151 cubic meters, and store liquids with maximum true vapor pressures less than 15.0 kilopascals, the requirements of this rule are no longer included in this permit for these tanks.

Enforcement Issue

There are no enforcement actions pending.

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 administratively complete FESOP renewal application for the purposes of this review was received on July 13, 2006. Additional information was received on September 15, 2006.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A of this document for detailed emission calculations (Appendix A, pages 1 through 14).

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	Greater than 250
PM-10	Greater than 250
SO ₂	Greater than 250
VOC	Greater than 250
CO	Less than 100
NO _x	Less than 250, Greater than 100

HAPs	Unrestricted Potential Emissions (tons/yr)
Acetaldehyde	Less than 10
Acrolein	Less than 10
Arsenic	Less than 10
Benzene	Less than 10
Beryllium	Less than 10
Cadmium	Less than 10
Chromium	Less than 10
Cobalt	Less than 10
Ethyl benzene	Less than 10
Formaldehyde	Less than 10
HCl	Greater than 10
Hexane	Less than 10
Lead	Less than 10
Manganese	Less than 10
Methyl chloroform	Less than 10
Mercury	Less than 10
Nickel	Less than 10
Propionaldehyde	Less than 10
Quinone	Less than 10
Selenium	Less than 10
2,2,4 Trimethylpentane	Less than 10
Toluene	Less than 10
Total PAH	Less than 10
Xylene	Less than 10
Total	Greater than 25

- (a) The unrestricted potential emissions of PM-10, SO₂, VOC and NO_x are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 2-7. The source will be issued a FESOP because the source will limit its emissions below the Title V levels.
- (b) Fugitive Emissions
 This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2. Since there are applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD and Emission Offset applicability.

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. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP.

Process/emission unit	Potential To Emit (tons/year)							
	PM	PM-10	SO ₂	VOC	CO	NO _x	Ind. HAPs	Combined HAPs
aggregate dryer and burner ⁽¹⁾	149.04 ⁽³⁾	67.03 ⁽⁴⁾	96.10	19.81	80.51	40.52	9.90	15.14
reciprocating internal combustion engine ⁽²⁾	4.06	4.06	3.80	4.71	12.44	57.73	--	--
hot oil heater	0.01	0.05	<0.01	0.04	0.55	0.66	Negl.	Negl
conveying / handling	14.53	6.87	--	--	--	--	--	--
unpaved roads	79.96	20.38	--	--	--	--	--	--
storage	1.21	0.42	--	--	--	--	--	--
load-out & silo filling	1.09	1.09	--	11.29	1.77	--	0.06 ⁽⁶⁾	0.21
cold mix VOC use & storage	--	--	--	63.61	--	--	--	--
Total Emissions	249.90	99.90	99.90	99.90	99.90	98.90	<10	<25

- (1) Limited PTE for aggregate mixer and burner reflects fuel usage limitation to comply with 326 IAC 2-8 (FESOP).
- (2) Limited PTE for reciprocating internal combustion engine reflects fuel usage limitation to comply with 326 IAC 2-8 (FESOP).
- (3) Maximum allowable PM emissions for 326 IAC 2-2 (PSD) avoidance.
- (4) Maximum allowable PM10 emissions in order to comply with 326 IAC 2-8 (FESOP).
- (5) Largest single HAP from aggregate dryer and burner is HCl with a PTE of 9.90. tons per year.
- (6) Largest single HAP from load out & siio filling is Formaldehyde with a PTE of 0.06 tons per year.

County Attainment Status

The source is located in Dekalb County.

Pollutant	Status
PM2.5	attainment
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
8-hour Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Dekalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 redesignating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight-hour ozone standard, redesignating Lake County to attainment for the sulfur dioxide standard, and revoking the one-hour ozone standard in Indiana.
- (c) Dekalb County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (d) Dekalb County has been classified as attainment or unclassifiable for all other regulated pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Portable Source

- (a) Initial Location
This is a portable source and its initial location is 2059 SR 8W, Auburn, IN 46706.
- (b) PSD, Emission Offset and Nonattainment NSR requirements
The emissions from this portable source were reviewed under the requirements of the Prevention of Significant Deterioration (PSD) 326 IAC 2-2, Emission Offset 326 IAC 2-3 and Nonattainment NSR 326 IAC 2-1.1-5.
- (c) Relocation
This source can not move to Lake, Porter, Floyd or Clark Counties.

(d) Fugitive Emissions

This type of operation is not one of the twenty-eight (28) listed sources under 326 IAC 2-2 or 2-3. Since there are applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, and FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	less than 250
PM-10	less than 100
SO ₂	less than 100
VOC	less than 100
CO	less than 100
NO _x	less than 100
Single HAP	less than 10
Combination HAPs	less than 25

- (a) This existing source is not a major stationary source under 326 IAC 2-2 (PSD) because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.
- (b) This existing source is not a major stationary source under 326 IAC 2-3 (Emission Offset) because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater, and it is not in one of the 28 listed source categories.

Federal Rule Applicability

- (a) This portable drum hot mix asphalt plant constructed in 1989 is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90, Subpart I) 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 be able to comply with this rule by using a baghouse to limit particulate matter emissions from the drum mix asphalt plant to less than 0.04 gr/dscf.

The aggregate dryer and aggregate drum mix plant are subject to the following portions of 40 CFR 60, Subpart I apply:

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

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

- (b) The requirements of the New Source Performance Standard 326 IAC 12 (40CFR 60.670 through 60.676, Subpart OOO) "Standards of Performance for Nonmetallic Mineral Processing Plants" will not be included in this permit for recycled asphalt pavement (RAP) usage since the RAP is received onsite ready-to-use, and there is no crushing or grinding of the RAP prior to loading into the first storage silo/bin.
- (c) The requirements of the New Source Performance Standard 326 IAC 12 (40 CFR Part 60.110, Subpart Kb) will not be included for the one (1) 12,000 gallon liquid asphalt storage tank (ID # 11B) because the storage tank has a capacity less than 75 cubic meters (m³) (19,813 gallons), therefore, pursuant to 40 CFR 60.110b(a), the requirements of this rule will not be included in this permit.
- (d) The requirements of New Source Performance Standard 326 IAC 12 (40 CFR Part 60.110, Subpart Kb) will not be included for the two (2) 20,000 gallon storage tanks identified as 11A and 11C and the two (2) 30,000 gallon liquid burner fuels tanks and one (1) 30,000 gallon liquid asphalt storage tank because these tanks each have storage capacities of greater than 75 m³ (19,813 gallons) but less than 151 m³ (39,890 gallons) and store materials with maximum true vapor pressures of less than 15.0 kPa. Therefore, pursuant to 40 CFR 60.110b(b), the requirements of this rule will not be included in this permit.
- (e) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 61) applicable to this source.
- (f) The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable to this source. Generally, such requirements apply to a Part 70 source that involves a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, which meets the following criteria:
 - (1) The unit is subject to an emission limitation or standard for an applicable regulated air pollutant;
 - (2) The unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard; and
 - (3) The unit has a potential to emit before controls equal to or greater than the applicable Part 70 major source threshold for the regulated pollutant.

As a FESOP source, this source has accepted federally enforceable limits such that the requirements of 326 IAC 2-7 (Part 70) do not apply. Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not included in this permit

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This source is not subject to the requirements of this rule. As shown in the Potential to Emit After Issuance table, the allowable emissions of all regulated pollutants, except PM, are less than 100 tons per year after application of all federally enforceable emission limits. (See 326 IAC 2-8-4 (FESOP) discussion below) PM emissions are limited to less than 250 tons per year. The particulate emission limit for the aggregate dryer burner and the drum mixer is 0.228 lb/ton of asphalt mix, based on a maximum throughput of 1,309,846 tons of hot mix asphalt per year. Therefore the requirements of 326 IAC 2-2 (PSD) do not apply.

326 IAC 2-3 (Emission Offset)

The requirements of 326 IAC 2-3 (Emission Offset) apply to major sources or major modifications constructed in an area designated as nonattainment. Since this source is approved for operation in all areas of Indiana except Lake, Porter, Floyd or Clark Counties, the applicability threshold for 326 IAC 2-3 (Emission Offset) is 100 tons per year for PM₁₀, SO₂, VOC, NO_x, and CO. Therefore the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) do not apply.

326 IAC 2-1.1-5 (Nonattainment NSR)

According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM_{2.5} Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the PM 2.5 major NSR regulations, states should assume that a major stationary source's PM₁₀ emissions represent PM_{2.5} emissions. IDEM will use the PM₁₀ nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM_{2.5} NAAQS. A major source in a nonattainment area is a source that emits or has the potential to emit 100 tons per year of PM₁₀. Brooks Construction Company Inc. is approved for operation in all areas of Indiana except Lake, Porter, Floyd or Clark Counties, and has a limited potential to emit of PM₁₀ below 100. Therefore, assuming that PM₁₀ emissions represent PM_{2.5} emissions, Nonattainment NSR does not apply.

326 IAC 2-8 (FESOP)

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

- (a) The annual production of hot mix asphalt in the drum mixer and dryer shall be limited to 1,309,846 tons of hot mix asphalt per twelve (12) consecutive month period, with compliance determined at the end of each month. This limit is required to limit the source's emissions of CO to less than 100 tons per year and PM to less than 250 tons per year. This will also limit VOC emissions from the dryer/burner to less than 25 tons per year, therefore, the requirements of 326 IAC 2-7 (Part 70), 326 IAC 8-1-6 (BACT) and 326 IAC 2-2 (PSD) are not applicable.
- (b) CO emissions from the drum mix dryer shall not exceed 0.13 pound of CO per ton of hot mix asphalt produced. This will limit total source-wide CO emissions to less than 100 tons per year. Compliance with this limit will satisfy 326 IAC 2-8-4 and render the requirements of Part 70 (326 IAC 2-7) not applicable.
- (c) The input of No. 2 diesel fuel to the 4.1 MMBtu per hour reciprocating internal combustion engine shall be limited to 187,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limit is required to limit the source's emissions of all NO_x and SO₂, except PM, to less than 100 tons per year. PM emissions are limited to less than 250 tons per year. Therefore, the requirements of 326 IAC 2-7 (Part 70), and 326 IAC 2-2 (PSD) are not applicable.
- (d) The potential to emit NO_x from the combustion of Natural gas, Nos. 2, 4, 5, 6 fuel oils and waste oil in the 92.5 MMBtu per hour burner for the aggregate dryer based upon 8,760 hours per year of operation is less than 41.50 tons per year necessary to limit source wide NO_x emissions to less than 100 tons per year (40.52 tons per year, Appendix A, page 1 of 14). Therefore, limiting fuel input to the aggregate burner based upon NO_x emissions is not necessary.
- (e) The input of re-refined waste oil with a limited sulfur content of 1.0 % and a maximum chlorine content of 0.4% in the 92.5 MMBtu per hour burner for the aggregate dryer shall not exceed 750,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, such that the source-wide HCl emissions are

limited to 9.90 tons per year and source-wide SO₂ emissions are limited to less than 100 tons per year.

This fuel usage limitation will limit HCl emissions to less than 10 tons per year based on a maximum re-refined waste oil chlorine content of 0.4%. Since HCl is the only single HAP with unrestricted potential emissions of greater than 10 tons per year, this limit will ensure that source-wide single HAP and total HAP emissions are limited to less than 10 and 25 tons per year, respectively. This limit will render the requirements of 326 IAC 2-7 (Part 70), and 326 IAC 2-2 (PSD) not applicable.

- (f) The input of No. 5 fuel oil with a maximum sulfur content of 1.0% and No. 5 fuel oil equivalents to the 92.5 MMBtu per hour burner for the aggregate dryer shall be limited to 1,224,203 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

For purposes of determining compliance based on SO₂ emissions (See calculations within Appendix A pages No. 10 of 14), the following shall apply:

- (1) every million cubic feet (MMCF) of natural gas burned shall be equivalent to 3.8 gallons of No. 5 fuel oil based on SO₂ emissions, such that the total input of No. 5 fuel oil and No. 5 fuel oil equivalent input does not exceed the limit specified;
- (2) every 1,000 gallons of No. 2 distillate oil burned in the aggregate dryer burner shall be equivalent to 442.7 gallons of No. 5 fuel oil based on SO₂ emissions and a maximum No. 2 distillate oil sulfur content of 0.5% such that the total gallons of No. 5 fuel oil and No. 5 fuel oil equivalent input does not exceed the limit specified;
- (3) every 1,000 gallons of No. 4 fuel oil burned in the aggregate dryer burner shall be equivalent to 127.4 gallons of No. 5 fuel oil based on SO₂ emissions and a maximum No. 4 distillate oil sulfur content of 1.0% such that the total gallons of No. 5 fuel oil and No. 5 fuel oil equivalent input does not exceed the limit specified;
- (4) every 1,000 gallons of No. 6 fuel oil burned in the aggregate dryer burner shall be equivalent to 1,000.0 gallons of No. 5 fuel oil based on SO₂ emissions and a maximum No. 6 distillate oil sulfur content of 1.0% such that the total gallons of No. 5 fuel oil and No. 5 fuel oil equivalent input does not exceed the limit specified;
- (5) every 1,000 gallons of waste oil burned in the aggregate dryer burner shall be equivalent to 936.3 gallons of No. 5 fuel oil based on SO₂ emissions and a maximum waste oil sulfur content of 1.0 % such that the total gallons of No. 5 fuel oil and No. 5 fuel oil equivalent input does not exceed the limit specified.

These usage limits are required to limit the source's potential SO₂ emissions to less than 100 tons per year. This usage limit will also limit NO_x emissions to less than 100 tons per year. This operation is approved in all areas of Indiana except Lake, Porter, Floyd or Clark Counties. Therefore, these limits will render the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-2 (PSD), and 326 IAC 2-3 (Emission Offset) not applicable.

- (g) The following sulfur content limits shall apply:
- (1) the sulfur content of No. 2 fuel oil shall not exceed 0.5% by weight;
 - (2) the sulfur content of No. 4 fuel oil shall not exceed 1.0% by weight;
 - (3) the sulfur content of No. 5 fuel oil shall not exceed 1.0% by weight;

- (4) the sulfur content of No. 6 fuel oil shall not exceed 1.0% by weight; and
- (5) the sulfur content of waste oil shall not exceed 1.0% by weight.

These sulfur content limits are required to limit the source's potential to emit sulfur dioxide (SO₂) to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) will not apply.

- (h) The VOC solvent used as diluent in the liquid binder used in cold mix asphalt production from the plant shall be limited such that no more than 62.90 tons of VOC emissions emitted per twelve (12) consecutive months. This shall be achieved by limiting the total VOC solvent of any one selected binder to not exceed the stated limit for that binder during the last twelve (12) months. When more than one binder is used, the formula below must be applied so that the total VOC emitted does not exceed 62.90 tons per twelve (12) consecutive month period.

Liquid binders used in the production of cold mix asphalt shall be defined as follows:

- (1) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.
- (2) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.
- (3) Cut back asphalt slow cure, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.
- (4) Emulsified asphalt with solvent, containing a maximum of 15% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume
- (5) Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating

The liquid binder used in cold mix asphalt production shall be limited as follows:

- (6) Cutback asphalt rapid cure liquid binder usage shall not exceed 66.21 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (7) Cutback asphalt medium cure liquid binder usage shall not exceed 89.86 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (8) Cutback asphalt slow cure liquid binder usage shall not exceed 251.61 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (9) Emulsified asphalt with solvent liquid binder usage shall not exceed 135.56 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (10) Other asphalt with solvent liquid binder shall not exceed 2516.05 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

- (11) The VOC solvent allotments in (6) through (10) above shall be adjusted when more than one type of binder is used per twelve (12) month consecutive period rolled on a monthly basis. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment ratio listed in the table that follows.

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	
emulsified asphalt		2.04	
other asphalt		38	

The equivalent total tons of VOC of the combined liquid binders shall be less than 62.90 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Therefore, the requirements of 326 IAC 2-7 (Part 70) and 327 IAC 2-2 (PSD) do not apply.

- (i) PM-10 emissions from the aggregate mixing and drying operation shall be limited to 0.102 pounds per ton of hot mix asphalt produced based on a maximum throughput of 1,309,846 tons of hot mix asphalt per year. The source will be able to comply with the PM-10 emission limit by utilizing a baghouse for controlling PM-10 emissions from the aggregate dryer to less than 0.102 pounds per ton of asphalt produced. Operation of the baghouse is required at all times to be able to comply with this limit. Compliance with this limit shall limit the source's potential to emit of PM-10 to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-1.1-5 (Nonattainment NSR) and 326 IAC 2-2 (PSD) are not applicable.

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. This source is approved for operation in all areas of Indiana except Lake, Porter, Clark and Floyd counties.

326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any source that constructs or reconstructs a major source of HAPs, which has the potential to emit (PTE) 10 tons per year of any single HAP or 25 tons per year of any combination of HAPs, must control emissions from that source using technologies consistent with the Maximum Achievable Control Technology (MACT). This source has limited potential single HAP and total HAP emissions of less than 10 and 25 tons per year, respectively; therefore, this rule does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), when the source is located in any of the following areas:

1. Dearborn County, Lawrenceburg Township

2. Dubois County, Bainbridge Township
3. Marion County, except the area of Washington Township east of Fall Creek and the area of Franklin Township south of Thompson Road and east of Five Points Road.
4. St. Joseph County, the area north of Kern Road and east of Pine Road.
5. Vanderburgh County, the area included in the city of Evansville and Pigeon Township.
6. Vigo County, the area within a five-tenths (0.5) kilometer radius circle centered at UTM Coordinates Zone 16 East four hundred sixty-four and fifty-two hundredths (464.52) kilometers North four thousand three hundred sixty-nine and twenty-one hundredths (4,369.21) kilometers, unless otherwise stated in the permit:

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.

When the source is located in an area of Indiana not listed in number (1) through (6) above, opacity shall meet the following, unless otherwise stated in the permit

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

This source shall not re-locate to Lake, Porter, Floyd or Clark Counties.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

This rule requires that the source 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 Emissions Limitations)

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on March 11, 1996. The plan consists of:

- (a) Fugitive particulate matter (dust) emissions from paved roads, unpaved roads, and parking lots shall be controlled by one or more of the following measures:
 - (1) Paved roads and parking lots:
 - (A) Cleaning by vacuum sweeping on an as needed basis (monthly at a minimum).
 - (B) Power brooming while wet either from rain or application of water.

- (2) Unpaved roads and parking lots:
 - (A) Paving with asphalt.
 - (B) Treating with emulsified asphalt on an as needed basis.
 - (C) Treating with water on an as needed basis.
 - (D) Double chip and seal the road surface and maintained on an as needed basis.

- (b) Fugitive particulate matter (dust) emissions from aggregate stockpiles shall be controlled by one or more of the following measures:
 - (1) Maintain minimum size and number of stock piles of aggregate.
 - (2) Treating around the stockpile area with emulsified asphalt on an as needed basis.
 - (3) Treating around the stockpile area with water on an as needed basis.
 - (4) Treating the stockpiles with water on an as needed basis.

- (c) Fugitive particulate matter (dust) emissions from outdoor conveying of aggregates shall be controlled by one or more of the following measures:
 - (1) Apply water at the feed and the intermediate points on an as needed basis.

- (d) Fugitive particulate matter (dust) emissions from the transferring of aggregates shall be controlled by one or more of the following measures:
 - (1) Minimize the vehicular distance between the transfer points.
 - (2) Enclose the transfer points.
 - (3) Apply water on transfer points on an as needed basis.

- (e) Fugitive particulate matter (dust) emissions from transporting of aggregate by truck, front end loader, etc. shall be controlled by one or more of the following measures:
 - (1) Tarping the aggregate hauling vehicles.
 - (2) Maintain vehicle bodies in a condition to prevent leakage.
 - (3) Spray the aggregates with water.
 - (4) Maintain a 10 mile per hour (MPH) speed limit in the yard.

- (f) Fugitive particulate matter (dust) emissions from the loading and unloading of aggregate shall be controlled by one or more of the following measures:
 - (1) Reduce free fall distance to a minimum.
 - (2) Reduce the rate of discharge of the aggregate.
 - (3) Spray the aggregate with water on an as needed basis.

“An as needed basis” means the frequency or quantity of application necessary to minimize visible particulate matter emissions.

The Permittee shall keep records to demonstrate compliance with the plan in accordance with Section C - General Record Keeping Requirements

State Rule Applicability – Individual Facilities

326 IAC 8-1-6 (BACT)

The drum mixer has a limited potential to emit of less than 24.9 tons per year of VOC, based on a limited throughput of 1,311,599 tons per year, therefore the requirements of 326 IAC 8-1-6 are not applicable.

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 not consistent with applicable limitations in 326 IAC 12, 40 CFR 60, Subpart I and 326 6.5-1-2. Since the applicable PM limits established by 326 IAC 12, 40 CFR 60, Subpart I and 326 6.5-1-2, are more stringent than the PM limits that would be established by 326 IAC 6-3-2, the limits pursuant to 326 IAC 6-3-2 do not apply (see Appendix A pages 14 of 14, for details).

326 IAC 6.5-1-2 (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) because this source could relocate to 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 operations 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 be able to comply with this rule by using a baghouse to limit particulate matter emissions to less than 0.03 gr/dscf (see Appendix A, page 14 of 14, for detailed calculations) when operating in Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo, or Wayne Counties.

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. This source shall not relocate to Clark, Floyd, Lake or Porter County. In addition, the one (1) 12,000 gallon liquid asphalt storage tank (11B), the one (1) 20,000 gallon liquid asphalt storage tank (11A), the one (1) 20,000 gallon liquid asphalt storage tank (11C), the two (2) 30,000 gallon burner fuel tanks and the one (1) 30,000 gallon asphalt tank at this source each have a capacity less than the threshold of 420,000 gallons. Therefore, pursuant to 326 IAC 8-9-2(4), these tanks are exempt from this rule.

326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties)

The potential to emit of NO_x has been limited to less than one hundred (100) tons per year and the source shall not re-locate to Floyd or Clark Counties; therefore, pursuant to 326 IAC 10-1-1(a), the requirements of 326 IAC 10-1 are not applicable.

326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Category)

This source does not operate a Portland cement kiln or a blast furnace gas boiler with a heat input greater than two hundred fifty million (250,000,000) British thermal units per hour. The one 92.5 million Btu dryer burner is not subject to this rule; therefore the requirements of 326 IAC 10-3 are not applicable.

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 7 (Sulfur Dioxide Rules)

The 92.5 million British thermal units per hour burner for the aggregate drum mix dryer is subject to 326 IAC 7-1.1 because it has potential SO₂ emissions of greater than 25 tons per year (limited potential emissions are 96.10 tons per year). Pursuant to this rule, sulfur dioxide emissions from the dryer burner shall be limited to 0.5 pounds per MMBtu when using distillate oils, and shall be limited to 1.6 pounds per million BTU heat input for residual oil combustion. This is equivalent to the following maximum allowable sulfur contents of the following fuels: No. 2 fuel oil (0.5%), No. 4 fuel oil (1.4%), No. 5 fuel oil (1.5%), No. 6 fuel oil (1.6%) and waste oil (1.5%), (see Appendix A: Emission Calculations, page 13 of 14).

The 1.5 MMBtu/hr hot oil heater and 4.1 MMBtu/hr reciprocating internal combustion engine are not subject to the requirements of this rule because potential SO₂ emissions from these units are less than 25 tons per year.

326 IAC 8-5-2 (Asphalt paving rules)

This rule applies to any paving application constructed after January 1, 1980 located anywhere in the state. Pursuant to this rule, the source shall not cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application, except in the following purposes:

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

This source uses stockpile mix containing 7% (wt) emulsified asphalt binder, which contains 1% (wt) fuel oil, for a net fuel oil content in the stockpile mix of 0.07% (wt), which equates to less than 7% (by vol). The source will be able to comply with 326 IAC 8-5-2.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less 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 requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

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

The drum mixer and burner baghouse stack exhaust (SV1), the reciprocating internal combustion engine exhaust, and the conveying, material transfer points, and screening has applicable compliance monitoring conditions as specified below:

- (a) Daily visible emission notations of the aggregate dryer drum mixer and burner baghouse stack exhaust (SV1), the reciprocating internal combustion engine exhaust, and the conveying, material transfer points, and screening shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.
- (f) The Permittee shall record the pressure drop across the baghouse used in conjunction with the aggregate dryer/mixer, once per day when the process is in operation and venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

- (g) In the event that bag failure has been observed:
 - (1) 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).
 - (2) 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 line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

These monitoring conditions are necessary because the baghouse for the aggregate mixing and drying process must operate properly to ensure compliance 326 IAC 2-8 (FESOP), 326 IAC 12, 40 CFR 60.90, Subpart I, 326 IAC 6.5-1-2 and to ensure compliance with the PM and PM10 emission limits so that the requirements of 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset) and 326 2-1.1-5 (Nonattainment NSR) do not apply.

Conclusion

The operation of this portable hot mix asphalt plant shall be subject to the conditions of the FESOP 033-23354-03303.

Company Name:	Brooks Construction Company, Inc
Plant Location:	2059 SR 8W, Auburn IN
County:	Dekalb
Permit Reviewer:	Julia Handley/EVP

**** aggregate dryer burner****

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1 and 1.4-2.

Criteria Pollutant:	<u>92.5 MMBtu/hr * 8,760 hr/yr</u>	* Ef (lb/MMcf) = (ton/yr)
	1000 Btu/cf * 2,000 lb/ton	
P M:	1.9 lb/MMcf =	0.77 ton/yr
P M-10:	7.6 lb/MMcf =	3.08 ton/yr
S O 2:	0.6 lb/MMcf =	0.24 ton/yr
N O x:	100.0 lb/MMcf =	40.52 ton/yr
V O C:	5.5 lb/MMcf =	2.23 ton/yr
C O:	84.0 lb/MMcf =	34.03 ton/yr

The following calculations determine the amount of emissions created by the combustion of # 2 distillate fuel oil @ 0.5 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant:	<u>92.5 MMBtu/hr * 8,760 hr/yr</u>	* Ef (lb/1,000 gal) = (ton/yr)
	139,000 Btu/gal * 2,000 lb/ton	
P M:	2.0 lb/1000 gal =	5.83 ton/yr
P M-10:	3.3 lb/1000 gal =	9.62 ton/yr
S O 2:	69.5 lb/1000 gal =	202.58 ton/yr
N O x:	20.0 lb/1000 gal =	58.29 ton/yr
V O C:	0.34 lb/1000 gal =	0.99 ton/yr
C O:	5.0 lb/1000 gal =	14.57 ton/yr

The following calculations determine the amount of emissions created by the combustion of # 4 fuel oil @ 1.0 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant:	<u>92.5 MMBtu/hr * 8,760 hr/yr</u>	* Ef (lb/1,000 gal) = (ton/yr)
	138,000 Btu/gal * 2,000 lb/ton	
P M:	7.0 lb/1000 gal =	20.55 ton/yr
P M-10:	8.5 lb/1000 gal =	24.95 ton/yr
S O 2:	150.0 lb/1000 gal =	440.38 ton/yr
N O x:	20.0 lb/1000 gal =	58.72 ton/yr
V O C:	0.20 lb/1000 gal =	0.59 ton/yr
C O:	5.0 lb/1000 gal =	14.68 ton/yr

The following calculations determine the amount of emissions created by the combustion of #5 residual fuel oil @ 1.0 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant:	<u>92.5 MMBtu/hr * 8,760 hr/yr</u>	* Ef (lb/1,000 gal) = (ton/yr)
	140,000 Btu/gal * 2,000 lb/ton	
P M:	12.4 lb/1000 gal =	35.91 ton/yr
P M-10:	13.9 lb/1000 gal =	40.25 ton/yr
S O 2:	157.0 lb/1000 gal =	454.35 ton/yr
N O x:	55.0 lb/1000 gal =	159.17 ton/yr
V O C:	0.28 lb/1000 gal =	0.81 ton/yr
C O:	5.0 lb/1000 gal =	14.47 ton/yr

The following calculations determine the amount of emissions created by the combustion of #6 fuel oil
@ 1.0 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and
US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant:	<u>92.5 MMBtu/hr * 8,760 hr/yr</u>	* Ef (lb/1,000 gal) = (ton/yr)
	150,000 Btu/gal * 2,000 lb/ton	
P M:	10.0 lb/1000 gal =	27.01 ton/yr
P M-10:	11.5 lb/1000 gal =	31.06 ton/yr
S O 2:	157.0 lb/1000 gal =	424.06 ton/yr
N O x:	55.0 lb/1000 gal =	148.56 ton/yr
V O C:	0.28 lb/1000 gal =	0.76 ton/yr
C O:	5.0 lb/1000 gal =	13.51 ton/yr

The following calculations determine the amount of emissions created by the combustion of re-refined waste oil
@ 1.0 % sulfur,
@ 1.00 % ash, and
@ 0.40 %Cl, from the aggregate dryer burner, based on 8,760 hours of use and
US EPA's AP-42, 5th Edition, Section 1.11 - Waste Oil Combustion, Tables 1.11-1, 1.11-2, , 1.11-3,
and 1.11-4.

Criteria Pollutant:	<u>92.5 MMBtu/hr * 8,760 hr/yr</u>	* Ef (lb/1,000 gal) = (ton/yr)
	140,000 Btu/gal * 2,000 lb/ton	
P M:	64.0 lb/1000 gal =	185.21 ton/yr
P M-10:	51.0 lb/1000 gal =	147.59 ton/yr
S O 2:	147.0 lb/1000 gal =	425.41 ton/yr
N O x:	19.0 lb/1000 gal =	54.98 ton/yr
V O C:	1.00 lb/1000 gal =	2.89 ton/yr
C O:	5.0 lb/1000 gal =	14.47 ton/yr
HCl:	26.4 lb/1000 gal =	76.40 ton/yr

The maximum potential emissions from the aggregate dryer burner due to fuel combustion are the following:

Criteria Pollutant:	P M:	185.21 ton/yr	Worst Case Fuel
	P M-10:	147.59 ton/yr	Re-refined Waste Oil
	S O 2:	454.35 ton/yr	Re-refined Waste Oil
	N O x:	159.17 ton/yr	Fuel Oil No. 5/Fuel No. 6
	V O C:	2.89 ton/yr	Fuel Oil No. 5
	C O:	34.03 ton/yr	Re-refined Waste Oil
	HCl:	76.40 ton/yr	Natural Gas
			Re-refined Waste Oil

**** aggregate drying: drum-mix plant ****

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-5 and 11.1-10 for a drum mix dryer which has the capability of combusting either fuel oil, natural gas, or re-refined waste oil:

Pollutant:	Ef	lb/ton x	<u>300</u>	ton/hr x	8,760	hr/yr
			2,000	lb/ton		
Criteria Pollutant:	P M:	28	lb/ton =	36,792.00 ton/yr		
	P M-10:	6.5	lb/ton =	8,541.00 ton/yr		
	VOC:	0.032	lb/ton =	42.05 ton/yr		
	HCl:	0.00021	lb/ton =	0.28 ton/yr		
	NOx:	0.055	lb/ton =	72.27 ton/yr		
	CO:	0.13	lb/ton =	170.82 ton/yr		

****hot oil heater****

The following calculations determine the amount of emissions created by natural gas combustion, from hot oil heating based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant:	1.5 MMBtu/hr * 8,760 hr/yr	* Ef (lb/MMcf) = (ton/yr)
	1000 Btu/cf * 2,000 lb/ton	
P M:	1.9 lb/MMcf =	0.01 ton/yr
P M-10:	7.6 lb/MMcf =	0.05 ton/yr
S O 2:	0.6 lb/MMcf =	0.004 ton/yr
N O x:	100.0 lb/MMcf =	0.66 ton/yr
V O C:	5.5 lb/MMcf =	0.04 ton/yr
C O:	84.0 lb/MMcf =	0.55 ton/yr

****reciprocation internal combustion engine****

The following calculations determine the amount of emissions created by combustion of No. 2 diesel fuel from reciprocating internal combustion engine, based on 8,760 hours of operation and US EPA's AP-42, Section 3.3 - Gasoline and Diesel Industrial Engines, Table 3.3-

Criteria Pollutant:	4.1 MMBtu/hr * 8,760 hr/yr	* Ef (lb/MMBtu) = (ton/yr)
	2,000 lb/ton	
P M:	0.31 lb/MMBtu =	5.57 ton/yr
P M-10:	0.31 lb/MMBtu =	5.57 ton/yr
S O 2:	0.29 lb/MMBtu =	5.21 ton/yr
N O x:	4.41 lb/MMBtu =	79.19 ton/yr
V O C:	0.36 lb/MMBtu =	6.46 ton/yr
C O:	0.95 lb/MMBtu =	17.06 ton/yr

**** conveying / handling ****

The following calculations determine the amount of emissions created by material handling, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM-10 Emissions:

$$E = k * (0.0032) * ((U/5)^{1.3}) / ((M/2)^{1.4})$$

$$= 5.23E-03 \text{ lb PM-10/ton}$$

$$= 1.11E-02 \text{ lb PM/ton}$$

where k = 0.35 (particle size multiplier for <10um)
 0.74 (particle size multiplier for <30um)

U = 12 mph mean wind speed
 M = 1.5 material moisture content (%)

$$\frac{300 \text{ ton/hr} * 8,760 \text{ hrs/yr} * \text{Ef (lb/ton of material)}}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

Total PM 10 Emissions: 6.87 tons/yr
Total PM Emissions: 14.53 tons/yr

**** unpaved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on unpaved industrial roads, based on 8,760 hours of use and AP-42, Section 13.2.2.2, 13.2.2-2, 13.2.2-1 (1/2006)

I. Dump Truck

$$7.5 \text{ trip/hr} \times 0.125 \text{ mile/trip} \times 2 \text{ (round trip)} \times 8,760 \text{ hr/yr} = 16,425 \text{ mile/yr}$$

$$Ef = k * (s/12)^a * (W/3)^b * [(365-P)/365]$$

$$= 1.10 \text{ lb PM-10/mile}$$

$$= 4.32 \text{ lb PM/mile}$$

where k = 1.5 (particle size multiplier for PM-10)
 k = 4.9 (particle size multiplier for PM)
 s = 4.8 mean % silt content of unpaved roads
 a = 0.9 Constant for PM-10
 a = 0.7 Constant for PM
 b = 0.45 Constant for PM and PM-10
 W = 24 tons average vehicle weight
 P = 125 number of days with at least 0.01 in of precipitation

$$\text{PM-10: } \frac{1.10 \text{ lb/mi} \times 16,425 \text{ mi/yr}}{2000 \text{ lb/ton}} = 9.05 \text{ tons/yr}$$

$$\text{PM: } \frac{4.32 \text{ lb/mi} \times 16,425 \text{ mi/yr}}{2000 \text{ lb/ton}} = 35.52 \text{ tons/yr}$$

II. Front End Loader

$$36 \text{ trip/hr} \times 0.076 \text{ mile/trip} \times 2 \text{ (round trip)} \times 8,760 \text{ hr/yr} = 47,935 \text{ mile/yr}$$

$$E_f = k \cdot (s/12)^a \cdot (W/3)^b \cdot [(365-P)/365]$$

= 1.32 lb PM-10/mile
= 5.19 lb PM/mile

where k = 1.5 (particle size multiplier for PM-10)
k = 4.9 (particle size multiplier for PM)
s = 4.8 mean % silt content of unpaved roads
a = 0.9 Constant for PM-10
a = 0.7 Constant for PM
b = 0.45 Constant for PM and PM-10
W = 36 tons average vehicle weight
P = 125 number of days with at least 0.01 in of precipitation

PM-10:	1.32 lb/mi x	47,935 mi/yr =	31.70 tons/yr
		2000 lb/ton	
PM:	5.19 lb/mi x	47,935 mi/yr =	124.40 tons/yr
		2000 lb/ton	

**** storage ****

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

Material	Silt Content (wt %)	Pile Size (acres)	Storage Capacity (tons)	PM Emissions tons/yr	PM-10 Emissions tons/yr
Sand	1.0	2.066	50,000	0.44	0.15
Stone	0.8	3.440	150,000	0.58	0.20
RAP	1.0	0.918	40,000	0.194	0.07
Total				1.21	0.42

Sample Calculation:

$$\text{Emissions (storage)} = \frac{E_f \cdot (\text{Pile Size in acres}) \cdot (365 \text{ day/yr})}{(2,000 \text{ lb/ton})}$$

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

= 1.16 lb/acre/day
where s = 1.0 % silt
p = 125 days of rain greater than or equal to 0.01 inches
f = 15 % of wind greater than or equal to 12 mph

**** load-out ****

The following calculations determine the amount of emissions created by plant load-out, based on 8,760 hours of use and US EPA's AP-42, Section 11.1, Tables 11.1-14 through 11.1-16.

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

= 3.63E-04 lb PM or PM-10 per ton of asphalt mix produced
where V = -0.5 asphalt volatility (default value of -0.5 used per AP-42)
T = 300 hot mix asphalt (HMA)

PM/PM10 = 0.48 tons/yr
Total PAH HAPs = 0.03 tons/yr (5.93% of Organic PM emissions per AP-42)*
Phenol = 0.01 tons/yr (1.18% of Organic PM emissions per AP-42)*

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

= 2.22E-03 lb TOC per ton of asphalt mix produced
where V = -0.5 asphalt volatility (default value of -0.5 used per AP-42)
T = 300 hot mix asphalt (HMA)

VOC = 2.74 tons/yr (94% of TOC emissions per AP-42)
Worst Case Single HAP (Xylenes) = 0.01 tons/yr (0.49% of TOC emissions per AP-42)

Total Volatile HAPs = 0.04 tons/yr (1.5% of TOC emissions per AP-42)

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

= 7.20E-04 lb CO per ton of asphalt mix produced
where V = -0.5 asphalt volatility (default value of -0.5 used per AP-42)
T = 300 hot mix asphalt (HMA)

CO = 0.95 tons/yr

**** silo filling ****

The following calculations determine the amount of emissions created by silo filling, based on 8,760 hours of use and US EPA's AP-42, Section 11.1, Tables 11.1-14 through 11.1-16.

$$\begin{aligned} \text{PM/PM10 Ef} &= 0.000332 + 0.00105(-V)e^{(0.0251)(T+460)-20.43} \\ &= 4.68\text{E-}04 \text{ lb PM or PM-10 per ton of asphalt mix produced} \\ \text{where } V &= -0.5 \text{ asphalt volatility (default value of -0.5 used per AP-42)} \\ T &= 300 \text{ hot mix asphalt (HMA)} \end{aligned}$$

PM/PM10 = 0.61 tons/yr
Total PAH HAPs = 0.03 tons/yr (11.40% of Organic PM emissions per AP-42)*

$$\begin{aligned} \text{TOC Ef} &= 0.0504(-V)e^{(0.0251)(T+460)-20.43} \\ &= 6.51\text{E-}03 \text{ lb TOC per ton of asphalt mix produced} \\ \text{where } V &= -0.5 \text{ asphalt volatility (default value of -0.5 used per AP-42)} \\ T &= 300 \text{ hot mix asphalt (HMA)} \end{aligned}$$

VOC = 8.55 tons/yr (100% of TOC emissions per AP-42)
Worst Case Single HAP (Formaldehyde) = 0.06 tons/yr (0.69% of TOC emissions per AP-42)
Total Volatile HAPs = 0.11 tons/yr (1.3% of TOC emissions per AP-42)

$$\begin{aligned} \text{CO Ef} &= 0.00488(-V)e^{(0.0251)(T+460)-20.43} \\ &= 6.30\text{E-}04 \text{ lb CO per ton of asphalt mix produced} \\ \text{where } V &= -0.5 \text{ asphalt volatility (default value of -0.5 used per AP-42)} \\ T &= 300 \text{ hot mix asphalt (HMA)} \end{aligned}$$

CO = 0.83 tons/yr

* Organic PM emissions are calculated using the equation from Table 11.1-14.

$$\begin{aligned} \text{Organic PM Ef} &= 0.00141(-V)e^{(0.0251)(T+460)-20.43} \\ &= 1.82\text{E-}04 \text{ lb PM or PM-10 per ton of asphalt mix produced} \\ \text{where } V &= -0.5 \text{ asphalt volatility (default value of -0.5 used per AP-42)} \\ T &= 300 \text{ hot mix asphalt (HMA)} \end{aligned}$$

****cold mix VOC storage emissions ****

I. Emulsified Asphalt with Solvent.

The following calculations determine the amount of VOC emissions created by the application of stockpile mix containing emulsified asphalt of which 46.4% by weight of VOC is evaporated, based on 8,760 hours of operation.

VOC Emission Factor = **0.0696 weight percent of Solvent in stockpile***
 Potential Throughput (tons/yr) = **2,628,000 tons/yr stockpile mix**

Potential VOC Emissions (tons/yr) = Potential Throughput (tons/yr) * VOC Emission Factor (wt% flash-off)
 Potential VOC Emissions = **1,829.09 tons/yr**

* Weight percent flash-off is based on use of emulsified asphalt containing a maximum of 15% of the liquid binder by weight of VOC solvent and 46.4% by weight of VOC solvent evaporating.

II. Cut back asphalt rapid cure

The following calculations determine the amount of VOC emissions created by the application of stockpile mix containing cut back asphalt rapid cure of which 95% by weight of VOC is evaporated, based on 8,760 hours of operation.

VOC Emission Factor = **0.24035 weight percent flash-off of cold mix**
 Potential Throughput (tons/yr) = **2,628,000 tons/yr stockpile mix**

Potential VOC Emissions (tons/yr) = Potential Throughput (tons/yr) * VOC Emission Factor (wt% flash-off)
 Potential VOC Emissions = **6,316.40 tons/yr**

* Weight percent flash-off is based on use of cutback asphalt containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.

III. Cut back asphalt medium cure

The following calculations determine the amount of VOC emissions created by the application of stockpile mix containing cut back asphalt medium cure of which 70% by weight of VOC is evaporated, based on 8,760 hours of operation.

VOC Emission Factor = **0.2002 weight percent flash-off of cold mix**
 Potential Throughput (tons/yr) = **2,628,000 tons/yr stockpile mix**

Potential VOC Emissions (tons/yr) = Potential Throughput (tons/yr) * VOC Emission Factor (wt% flash-off)
 Potential VOC Emissions = **5,261.26 tons/yr**

* Weight percent flash-off is based on use of cutback asphalt containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.

IV. Cut back asphalt slow cure

The following calculations determine the amount of VOC emissions created by the application of stockpile mix containing cut back asphalt slow cure of which 25% by weight of VOC is evaporated, based on 8,760 hours of operation.

VOC Emission Factor = **0.05 weight percent flash-off of cold mix**
 Potential Throughput (tons/yr) = **2,628,000 tons/yr stockpile mix**

Potential VOC Emissions (tons/yr) = Potential Throughput (tons/yr) * VOC Emission Factor (wt% flash-off)
 Potential VOC Emissions = **1,314.00 tons/yr**

* Weight percent flash-off is based on use of cutback asphalt containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.

V. Other asphalt with solvent binder

The following calculations determine the amount of VOC emissions created by the application of stockpile mix containing other asphalt with solvent binder of which 25% by weight of VOC is evaporated, based on 8,760 hours of operation.

VOC Emission Factor = **0.006475 weight percent flash-off of cold mix**
 Potential Throughput (tons/yr) = **2,628,000 tons/yr stockpile mix**

Potential VOC Emissions (tons/yr) = Potential Throughput (tons/yr) * VOC Emission Factor (wt% flash-off)
 Potential VOC Emissions = **170.16 tons/yr**

* Weight percent flash-off is based on use of gelled asphalt containing a maximum of 25.9% of the liquid binder by weight of VOC solvent and 2.5% by weight of VOC solvent evaporating.

Worst Case from Cold Mix VOC Storage = 6,316.40 tons/yr

** summary of source emissions before controls **	
Criteria Pollutants:	
	P M: 37,159.53 ton/yr
	P M-10: 8,743.35 ton/yr
	S O 2: 459.56 ton/yr
	N O x: 239.02 ton/yr
	V O C: 6,376.24 ton/yr
	C O: 190.21 ton/yr
	HCl: 76.40 ton/yr

** source emissions after controls **

CO emissions shall be limited by limiting the throughput to the aggregate mixer as follows:
 CO limited emissions= 99.9 tons per year - 14.762 =tpy from all other sources 85.14 tons per year
 Consequently, the annual throughput shall be limited as follows:
 Annual throughput limit = 1,309,846 tons asphalt/year
 This will limit VOC emissions from the drum mixer/aggregate burner to less than 24.9 tons per year, making the requirement of 326 IAC 8-1-6 are not applicable.

* Emissions of PM and PM-10 from drying operations are controlled with a 99.900 % control efficiency.

** aggregate drying: drum-mix plant - Limited Throughput* *

The following calculations determine the amount of worst case emissions created by aggregate drying after controls, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-5 and 11.1-10 for a drum mix dryer which has the capability of combusting either fuel oil, natural gas, or re-refined waste oil:

Pollutant:	Ef	lb/ton x	1,309,846.15 ton/yr
			2,000 lb/ton
Criteria Pollutant:			
	P M:	28 lb/ton =	18.34 ton/yr
	P M-10:	6.5 lb/ton =	4.26 ton/yr
	VOC:	0.032 lb/ton =	20.96 ton/yr
	HCl:	0.00021 lb/ton =	0.14 ton/yr
	NOx:	0.055 lb/ton =	36.02 ton/yr
	CO:	0.13 lb/ton =	85.14 ton/yr

In order to qualify for the FESOP program, this source must limit SO2, NOx emissions to 99.9 tons per year. Consequently, the annual reciprocation internal combustion engine fuel usage shall be limited as follows:
 Diesel fuel burned in RIC annually= 187,000.00 gal/year * 0.14 MMBtu/gal = 26180.00 MMBtu/year

The following calculations determine the amount of emissions created by combustion of diesel fuel from reciprocating intern combustion engine, after annual fuel usage limitation, and US EPA's AP-42, Section 3.3 - Gasoline and Diesel Industrial Engines, Table 3.3-

Criteria Pollutant:	26180.00 MMBtu/yr	* Ef (lb/MMBtu) = (ton/yr)
	2,000 lb/ton	
P M:	0.31 lb/MMBtu =	4.06 ton/yr
P M-10:	0.31 lb/MMBtu =	4.06 ton/yr
S O 2:	0.29 lb/MMBtu =	3.80 ton/yr
N O x:	4.41 lb/MMBtu =	57.73 ton/yr
V O C:	0.36 lb/MMBtu =	4.71 ton/yr
C O:	0.95 lb/MMBtu =	12.44 ton/yr

In order to qualify for the FESOP program, this source must limit SO2 and NOx emissions to 99.9 tons per year and single HAP emissions (HCl) to 9.9 tons per year. Consequently, NOx, SO2, and HCl emissions from the aggregate dryer must be limited as follows:					
NOx limited emissions=	99.9 tons per year -	58.38	=tpy from the hot oil heater & RIC	41.52	tons per year
SO2 limited emissions=	99.9 tons per year -	3.800	=tpy from the hot oil heater & RIC	96.10	tons per year
HCL limited emissions=		9.9 tons per year		9.90	tons per year

* Emissions of PM and PM-10 from aggregate drying operations are controlled with a 99.900 % control efficiency.

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer, based on a maximum fuel usage of 810.30 MMcf

Criteria Pollutant:	<u>810.30</u> MMcf/yr	* Ef (lb/MMcf) = (ton/yr)	
	2,000 lb/ton		
P M:	1.9 lb/MMcf =	7.70E-04 ton/yr *	
P M-10:	7.6 lb/MMcf =	3.08E-03 ton/yr *	
S O 2:	0.6 lb/MMcf =	0.24 ton/yr	1034.526316
N O x:	100.0 lb/MMcf =	40.52 ton/yr	
V O C:	5.5 lb/MMcf =	2.23 ton/yr	
C O:	84.0 lb/MMcf =	34.03 ton/yr	

The following calculations determine the amount of emissions created by the combustion of No. 2 distillate fuel oil @ 0.5 % sulfur, from the aggregate dryer burner, based on a fuel usage limitation of 2,765,466 gal/yr:

Criteria Pollutant:	<u>2,765</u> Kgal/yr:	* Ef (lb/1,000 gal) = (ton/yr)	
	2,000 lb/ton		
P M:	2.0 lb/1000 gal =	2.77E-03 ton/yr	2500957.234
P M-10:	3.3 lb/1000 gal =	4.56E-03 ton/yr	
S O 2:	69.5 lb/1000 gal =	96.10 ton/yr	
N O x:	20.0 lb/1000 gal =	27.65 ton/yr	
V O C:	0.34 lb/1000 gal =	0.47 ton/yr	
C O:	5.0 lb/1000 gal =	6.91 ton/yr	

The following calculations determine the amount of emissions created by the combustion of No. 4 fuel oil @ 1.0 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and based on a fuel usage limitation of 1,281,333 gal/yr:

Criteria Pollutant:	<u>1,281</u> Kgal/yr:	* Ef (lb/1,000 gal) = (ton/yr)	
	2,000 lb/ton		
P M:	7.0 lb/1000 gal =	4.48E-03 ton/yr	
P M-10:	8.5 lb/1000 gal =	5.45E-03 ton/yr	
S O 2:	150.0 lb/1000 gal =	96.10 ton/yr	
N O x:	20.0 lb/1000 gal =	12.81 ton/yr	
V O C:	0.20 lb/1000 gal =	0.13 ton/yr	
C O:	5.0 lb/1000 gal =	3.20 ton/yr	

The following calculations determine the amount of emissions created by the combustion of #5 residual fuel oil @ 1.0 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and based on a fuel usage limitation of 1,224,203 gal/yr:

Criteria Pollutant:	<u>1,224</u> Kgal/yr:	* Ef (lb/1,000 gal) = (ton/yr)	
	2,000 lb/ton		
P M:	12.4 lb/1000 gal =	7.60E-03 ton/yr	
P M-10:	13.9 lb/1000 gal =	8.51E-03 ton/yr	
S O 2:	157.0 lb/1000 gal =	96.10 ton/yr	
N O x:	55.0 lb/1000 gal =	33.67 ton/yr	
V O C:	0.28 lb/1000 gal =	0.17 ton/yr	
C O:	5.0 lb/1000 gal =	3.06 ton/yr	

The following calculations determine the amount of emissions created by the combustion of #6 fuel oil @ 1.0 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and based on a fuel usage limitation of 1,224,203 gal/yr:

Criteria Pollutant:	<u>1,224</u> Kgal/yr:	* Ef (lb/1,000 gal) = (ton/yr)	
	2,000 lb/ton		
P M:	10.0 lb/1000 gal =	6.12E-03 ton/yr	
P M-10:	11.5 lb/1000 gal =	7.04E-03 ton/yr	
S O 2:	157.0 lb/1000 gal =	96.10 ton/yr	
N O x:	55.0 lb/1000 gal =	33.67 ton/yr	
V O C:	0.28 lb/1000 gal =	0.17 ton/yr	
C O:	5.0 lb/1000 gal =	3.06 ton/yr	

The following calculations determine the amount of emissions created by the combustion of re-refined waste oil
 @ 1.0 % sulfur,
 @ 1.00 % ash, and
 @ 0.40 %Cl, from the aggregate dryer burner, based on 8,760 hours of use and
 based on a fuel usage limitation of 750,000 gal/yr:

Criteria Pollutant:	<u>750 Kgal/yr:</u>	* Ef (lb/1,000 gal) = (ton/yr)
	2,000 lb/ton	
P M:	64.0 lb/1000 gal =	2.40E-02 ton/yr
P M-10:	51.0 lb/1000 gal =	1.91E-02 ton/yr
S O 2:	147.0 lb/1000 gal =	55.13 ton/yr
N O x:	19.0 lb/1000 gal =	7.13 ton/yr
V O C:	1.00 lb/1000 gal =	0.38 ton/yr
C O:	5.0 lb/1000 gal =	1.88 ton/yr
HCl:	26.4 lb/1000 gal =	9.90 ton/yr

Criteria Pollutant:		Worst Case Fuel
P M:	7.60E-03 ton/yr *	No. 5 fuel oil
P M-10:	8.51E-03 ton/yr *	No. 5 fuel oil
S O 2:	96.10 ton/yr	No. 2, 4, 5, 6, fuel oils
N O x:	40.52 ton/yr	Natural Gas
V O C:	2.23 ton/yr	Natural Gas
C O:	34.03 ton/yr	Natural Gas
HCl:	9.90 ton/yr	Re-refined Waste Oil

**** Aggregate Burner Fuel Usage Limitations ****

Fuel: Natural Gas

No fuel usage limit is needed for natural gas in the aggregate burner because the potential to emit of NOx and SO2 is less than the limit necessary to limit source wide emissions to 100tpy, as shown below:

NOx:	40.52 tons NOx/year potential	<	41.52 tons NOx/year limited
SO2:	0.24 tons SO2/year potential	<	96.10 tons SO2/year limited

Fuel usage limitations are necessary for Nos. 2, 4, 5, and 6 fuel oils as well as waste oil because the potential to emit of SO2 and NOx is greater than the limit necessary to limit source wide emissions of each pollutant to 100 tpy.

Fuel: #2 distillate oil

96.10 <u>tons SO2/year limited</u>	x	5,829.50 <u>Kgals</u>	
202.58 tons SO2/year potential		year potential	
		=	2,765.466 <u>Kgals</u>
			year limited
41.52 <u>tons NOx/year limited</u>	x	5,829.50 <u>Kgals</u>	
58.29 tons NOx/year potential		year potential	
		=	4,151.610 <u>Kgals</u>
			year limited

Since the allowable fuel usage based upon SO2 is less than the allowable fuel usage based upon NOx, limiting SO2 emissions to less than 100 tons per year will also limit source wide NOx emissions to less than 100 tons per year. Therefore, the fuel usage limit based on SO2 will be included in the permit.

Fuel: #4 fuel oil

96.10 <u>tons SO2/year limited</u>	x	5,871.74 <u>Kgals</u>	
440.38 tons SO2/year potential		year potential	
		=	1,281.333 <u>Kgals</u>
			year limited
41.52 <u>tons NOx/year limited</u>	x	5,871.74 <u>Kgals</u>	
58.72 tons NOx/year potential		year potential	
		=	4,151.610 <u>Kgals</u>
			year limited

Since the allowable fuel usage based upon SO2 is less than the allowable fuel usage based upon NOx, limiting SO2 emissions to less than 100 tons per year will also limit source wide NOx emissions to less than 100 tons per year. Therefore, the fuel usage limit based on SO2 will be included in the permit.

Fuel: #5 fuel oil

96.10 <u>tons SO2/year limited</u>	x	5,787.86 <u>Kgals</u>	
454.35 tons SO2/year potential		year potential	
		=	1,224.203 <u>Kgals</u>
			year limited
41.52 <u>tons NOx/year limited</u>	x	5,787.86 <u>Kgals</u>	
159.17 tons NOx/year potential		year potential	
		=	1,509.676 <u>Kgals</u>
			year limited

Since the allowable fuel usage based upon SO2 is less than the allowable fuel usage based upon NOx, limiting SO2 emissions to less than 100 tons per year will also limit source wide NOx emissions to less than 100 tons per year. Therefore, the fuel usage limit based on SO2 will be included in the permit.

Fuel: #6 fuel oil

$$\begin{array}{rcl} 96.10 \text{ tons SO}_2/\text{year limited} & \times & 5,402.00 \frac{\text{Kgals}}{\text{year potential}} \\ 424.06 \text{ tons SO}_2/\text{year potential} & & \\ & = & 1,224.203 \frac{\text{Kgals}}{\text{year limited}} \end{array}$$

$$\begin{array}{rcl} 41.52 \text{ tons NO}_x/\text{year limited} & \times & 5,402.00 \frac{\text{Kgals}}{\text{year potential}} \\ 148.56 \text{ tons NO}_x/\text{year potential} & & \\ & = & 1,509.676 \frac{\text{Kgals}}{\text{year limited}} \end{array}$$

Since the allowable fuel usage based upon SO2 is less than the allowable fuel usage based upon NOx, limiting SO2 emissions to less than 100 tons per year will also limit source wide NOx emissions to less than 100 tons per year. Therefore, the fuel usage limit based on SO2 will be included in the permit.

Fuel: Re-refined waste oil

$$\begin{array}{rcl} 96.10 \text{ tons SO}_2/\text{year limited} & \times & 5,787.86 \frac{\text{Kgals}}{\text{year potential}} \\ 425.41 \text{ tons SO}_2/\text{year potential} & & \\ & = & 1,307.482 \frac{\text{Kgals}}{\text{year limited}} \end{array}$$

$$\begin{array}{rcl} 41.52 \text{ tons NO}_x/\text{year limited} & \times & 5,787.86 \frac{\text{Kgals}}{\text{year potential}} \\ 54.98 \text{ tons NO}_x/\text{year potential} & & \\ & = & 4,370.116 \frac{\text{Kgals}}{\text{year limited}} \end{array}$$

$$\begin{array}{rcl} 9.90 \text{ tons HCl/year limited} & \times & 5,787.86 \frac{\text{Kgals}}{\text{year potential}} \\ 76.40 \text{ tons HCl/year potential} & & \\ & = & 750.000 \frac{\text{Kgals}}{\text{year potential}} \end{array}$$

Since the allowable fuel usage based upon HCl is less than the allowable fuel usage based upon NOx or SO2, limiting HCl emissions to less than 9.9 tons per year will also limit source wide NOx and SO2 emissions to less than 100 tons per year. Therefore, the fuel usage limit based on HCl will be included in the permit.

**** Fuel Equivalence Limitations ****

Fuel: Natural Gas

Fuel equivalence limit for natural gas based on SO2 emissions from #5 fuel oil:

$$\begin{array}{rcl} \frac{454.35 \text{ \#5 F.O. potential emissions (ton/yr)}}{5787.86 \text{ \#5 F.O. potential usage (kgal/yr)}} & / & \frac{0.24 \text{ n.g. potential emissions (ton/yr)}}{810.30 \text{ n.g. potential usage (MMCFyr)}} \\ & = & \frac{261.667 \text{ MMCF n.g.. burned}}{\text{Kgal \#5 F.O.. burned}} \text{ or } \frac{0.0038 \text{ Kgal \#5 F.O.. burned}}{\text{MMCF n.g.. burned}} \end{array}$$

Fuel: #2 distillate oil

Fuel equivalence limit for #2 distillate oil based on SO2 emissions from #5 fuel oil:

$$\begin{array}{rcl} \frac{454.35 \text{ \#5 F.O. potential emissions (ton/yr)}}{5787.86 \text{ \#5 F.O. potential usage (kgal/yr)}} & / & \frac{202.58 \text{ \#2 F.O. potential emissions (ton/yr)}}{5829.50 \text{ \#2 F.O. potential usage (Kgal/yr)}} \\ & = & \frac{2.2590 \text{ Kgal \#2 F.O.. burned}}{\text{Kgal \#5 F.O.. burned}} \text{ or } \frac{0.4427 \text{ Kgal \#5 F.O.. burned}}{\text{Kgal \#2 F.O.. burned}} \end{array}$$

Fuel: #4 fuel oil

Fuel equivalence limit for #4 fuel oil based on SO2 emissions from #5 fuel oil:

$$\begin{array}{rcl} \frac{454.35 \text{ \#5 F.O. potential emissions (ton/yr)}}{5787.86 \text{ \#5 F.O. potential usage (kgal/yr)}} & / & \frac{58.72 \text{ \#4 F.O. potential emissions (ton/yr)}}{5871.74 \text{ \#4 F.O. potential usage (Kgal/yr)}} \\ & = & \frac{7.8500 \text{ Kgal \#4 F.O.. burned}}{\text{Kgal \#5 F.O.. burned}} \text{ or } \frac{0.1274 \text{ Kgal \#5 F.O.. burned}}{\text{Kgal \#4 F.O.. burned}} \end{array}$$

Fuel: #6 fuel oil

Fuel equivalence limit for #6 fuel oil based on SO2 emissions from #5 fuel oil:

$$\begin{array}{rcl} \frac{454.35 \text{ \#5 F.O. potential emissions (ton/yr)}}{5787.86 \text{ \#5 F.O. potential usage (kgal/yr)}} & / & \frac{424.06 \text{ \#6 F.O. potential emissions (ton/yr)}}{5402.00 \text{ \#6 F.O. potential usage (Kgal/yr)}} \\ & = & \frac{1.000 \text{ Kgal \#6 F.O.. burned}}{\text{Kgal \#5 F.O.. burned}} \text{ or } \frac{1.0000 \text{ Kgal \#5 F.O.. burned}}{\text{Kgal \#6 F.O.. burned}} \end{array}$$

Fuel: Re-refined waste oil

Fuel equivalence limit for waste oil based on SO2 emissions from #5 fuel oil:

$$\begin{array}{rcl} \frac{454.35 \text{ \#5 F.O. potential emissions (ton/yr)}}{5787.86 \text{ \#5 F.O. potential usage (kgal/yr)}} & / & \frac{425.41 \text{ W.O. potential emissions (ton/yr)}}{5787.86 \text{ W.O. potential usage (Kgal/yr)}} \\ & = & \frac{1.0680 \text{ Kgal W.O. burned}}{\text{Kgal \#5 F.O.. burned}} \text{ or } \frac{0.9363 \text{ Kgal \#5 F.O.. burned}}{\text{Kgal W.O. burned}} \end{array}$$

No fuel equivalence limit is required in order to limit HCl emissions because Natural Gas, and #2, 4, 5, and 6 fuel oils do not contain chlorine.

****cold mix VOC storage limitations ****

The following calculations determine the amount of VOC emissions created by the application of liquid binder for cold mix stockpiles, based on the source's use of cut back asphalt with solvent as the liquid binder type. Cut back asphalt with solvent is defined with the following properties:

Emulsified asphalt:

Maximum weight % of VOC solvent in binder 15.0%
 Weight % VOC solvent in binder that evaporates: 46.4%
 Volume % of diluent allowed = 7% (per 326 IAC 8-5-2)

Cut back asphalt rapid cure:

Maximum weight % of VOC solvent in binder 25.3%
 Weight % VOC solvent in binder that evaporates: 95.0%
 Volume % of diluent allowed = 7% (per 326 IAC 8-5-2)

Cut back asphalt medium cure:

Maximum weight % of VOC solvent in binder 28.6%
 Weight % VOC solvent in binder that evaporates: 70.0%
 Volume % of diluent allowed = 7% (per 326 IAC 8-5-2)

Cut back asphalt slow cure:

Maximum weight % of VOC solvent in binder 20.0%
 Weight % VOC solvent in binder that evaporates: 25.0%
 Volume % of diluent allowed = 7% (per 326 IAC 8-5-2)

Other asphalt with solvent binder:

Maximum weight % of VOC solvent in binder 25.9%
 Weight % VOC solvent in binder that evaporates: 2.5%
 Volume % of diluent allowed = 7% (per 326 IAC 8-5-2)

In order to qualify for the FESOP program, this source must limit VOC emissions to less than 99.90 tons per year. Deducting the VOC emitted from other activities, VOC solvent usage as diluent in the liquid binder used in the production of cold mix asphalt from the plant shall be limited as follows:

(99.90 tons VOC/yr - 37.00 tons VOC/yr from other sources after controls = **62.90 tons of VOC emitted per year**)

This is equivalent to limiting the usage of cold mix asphalt with solvent liquid binder to less than the following:

- 135.56 tons of VOC solvent per 12 consecutive month period for emulsified asphalt.
- 66.21 tons of VOC solvent per 12 consecutive month period for rapid cure cut back asphalt.
- 89.86 tons of VOC solvent per 12 consecutive month period for medium cure cut back asphalt.
- 251.61 tons of VOC solvent per 12 consecutive month period for slow cure cut back asphalt.
- 2516.05 tons of VOC solvent per 12 consecutive month period for other asphalt with solvent binder.

**** source emissions after controls ****

aggregate drying/dryer burner combustion	nonfugitive		
P M: 18.35 ton/yr x			18.35 ton/yr
P M-10: 4.27 ton/yr x			4.27 ton/yr
S O 2: 96.10 ton/yr x			96.10 ton/yr
N O x: 40.52 ton/yr x			40.52 ton/yr
VOC: 20.96 ton/yr x			20.96 ton/yr
C O: 85.14 ton/yr x			85.14 ton/yr
HCl: 9.90 ton/yr x			9.90 ton/yr
Pb: 0.00 ton/yr x			0.00 ton/yr
hot oil heater:	nonfugitive		
P M: 0.01 ton/yr x	100.00% emitted after controls =		0.01 ton/yr
P M-10: 0.05 ton/yr x	100.00% emitted after controls =		0.05 ton/yr
S O 2: 0.00 ton/yr x	100.00% emitted after controls =		0.004 ton/yr
N O x: 0.66 ton/yr x	100.00% emitted after controls =		0.66 ton/yr
VOC: 0.04 ton/yr x	100.00% emitted after controls =		0.04 ton/yr
C O: 0.55 ton/yr x	100.00% emitted after controls =		0.55 ton/yr
RIC engine	nonfugitive		
P M: 4.06 ton/yr x			4.06 ton/yr
P M-10: 4.06 ton/yr x			4.06 ton/yr
S O 2: 3.80 ton/yr x			3.80 ton/yr
N O x: 57.73 ton/yr x			57.73 ton/yr
VOC: 4.71 ton/yr x			4.71 ton/yr
C O: 12.44 ton/yr x			12.44 ton/yr
conveying/handling:	fugitive		
P M: 14.53 ton/yr x	50% emitted after controls =		7.26 ton/yr
P M-10: 6.87 ton/yr x	50% emitted after controls =		3.44 ton/yr
unpaved roads	fugitive		
P M: 159.91 ton/yr x	50% emitted after controls =		79.96 ton/yr
P M-10: 40.76 ton/yr x	50% emitted after controls =		20.38 ton/yr
storage piles:	fugitive		
P M: 1.21 ton/yr x	50% emitted after controls =		0.61 ton/yr
P M-10: 0.42 ton/yr x	50% emitted after controls =		0.21 ton/yr
load-out & silo filling	fugitive		
P M: 1.09 ton/yr x	100% emitted after controls =		1.09 ton/yr
P M-10: 1.09 ton/yr x	100% emitted after controls =		1.09 ton/yr
VOC: 11.29 ton/yr x	100% emitted after controls =		11.29 ton/yr
CO: 1.77 ton/yr x	100% emitted after controls =		1.77 ton/yr
Cold mix storage:	fugitive		
VOC: 62.90 ton/yr x			62.90 ton/yr

** summary of source emissions after limitation and controls **			
Criteria Pollutant:	Non-Fugitive	Fugitive	Total
PM:	22.42 ton/yr	88.92 ton/yr	111.33 ton/yr
PM-10:	8.37 ton/yr	25.12 ton/yr	33.49 ton/yr
S O 2:	99.90 ton/yr	0.00 ton/yr	99.90 ton/yr
N O x:	98.90 ton/yr	0.00 ton/yr	98.90 ton/yr
V O C:	25.71 ton/yr	74.19 ton/yr	99.90 ton/yr
C O:	98.13 ton/yr	1.77 ton/yr	99.90 ton/yr
HCl:	9.90 ton/yr	0.00 ton/yr	9.90 ton/yr

Hazardous Air Pollutants (HAPs)

**** aggregate dryer burner****

The following calculations determine the amount of HAP emissions created by the combustion of distillate fuel oil before & after controls @ 0.5 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-10.

Hazardous Air Pollutants (HAPs):

		92.5 MMBtu/hr * 8760 hr/yr 2,000 lb/ton	* Ef (lb/10 ¹² Btu) = (ton/yr)
		Potential To Emit	Limited Emissions
Arsenic:	4 lb/10 ¹² Btu =	1.62E-03 ton/yr	1.62E-06 ton/yr
Beryllium:	3 lb/10 ¹² Btu =	1.22E-03 ton/yr	1.22E-06 ton/yr
Cadmium:	3 lb/10 ¹² Btu =	1.22E-03 ton/yr	1.22E-06 ton/yr
Chromium:	3 lb/10 ¹² Btu =	1.22E-03 ton/yr	1.22E-06 ton/yr
Lead:	9 lb/10 ¹² Btu =	3.65E-03 ton/yr	3.65E-06 ton/yr
Manganese:	6 lb/10 ¹² Btu =	2.43E-03 ton/yr	2.43E-06 ton/yr
Mercury:	3 lb/10 ¹² Btu =	1.22E-03 ton/yr	1.22E-06 ton/yr
Nickel:	3 lb/10 ¹² Btu =	1.22E-03 ton/yr	1.22E-06 ton/yr
Selenium:	15 lb/10 ¹² Btu =	6.08E-03 ton/yr	6.08E-06 ton/yr
Total HAPs =		1.99E-02 ton/yr	1.99E-05 ton/yr

The following calculations determine the amount of HAP emissions created by the combustion of waste oil before & after controls @ 1.0 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.11-1, 1.11-4.

Hazardous Air Pollutants (HAPs):

		92.5 MMBtu/hr * 8,760 hr/yr 140,000 Btu/gal * 2,000 lb/ton	* Ef (lb/1,000 gal) = (ton/yr)
		Potential To Emit	Limited Emissions
Arsenic:	1.10E-01 lb/1000 gal =	0.32 ton/yr	1.62E-06 ton/yr
Cadmium:	9.30E-03 lb/1000 gal =	2.69E-02 ton/yr	1.22E-06 ton/yr
Chromium:	2.00E-02 lb/1000 gal =	5.79E-02 ton/yr	1.22E-06 ton/yr
Cobalt:	2.10E-04 lb/1000 gal =	6.08E-04 ton/yr	1.22E-06 ton/yr
Lead:	1.87E-01 lb/1000 gal =	0.54 ton/yr	3.65E-06 ton/yr
Manganese:	6.80E-02 lb/1000 gal =	0.20 ton/yr	2.43E-06 ton/yr
Nickel:	1.10E-02 lb/1000 gal =	3.18E-02 ton/yr	1.22E-06 ton/yr
Total HAPs =		1.17 ton/yr	1.26E-05 ton/yr

**** aggregate drying: drum-mixer ****

The following calculations determine the amount of HAP emissions created by aggregate drying before & after controls, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-10 for a drum mix dryer which can be fired with either fuel oil or natural gas. The HAP emission factors represent the worst case emissions (fuel oil combustion).

Maximum throughput	Ef	lb/ton x	300	ton/hr x	8760	hr/yr
			2000	lb/ton		
Limited throughput	Ef	lb/ton x	1,309,846.15	ton/yr		
			2000	lb/ton		

Hazardous Air Pollutants (HAPs):

		Potential To Emit	Limited Emissions
Acetaldehyde	3.20E-04 lb/ton =	0.42 ton/yr	0.21 ton/yr
Acrolein	2.60E-05 lb/ton =	0.03 ton/yr	0.02 ton/yr
Benzene:	3.90E-04 lb/ton =	0.51 ton/yr	0.26 ton/yr
Ethyl benzene:	2.40E-04 lb/ton =	0.32 ton/yr	0.16 ton/yr
Formaldehyde:	3.10E-03 lb/ton =	4.07 ton/yr	2.03 ton/yr
Hexane:	9.20E-04 lb/ton =	1.21 ton/yr	0.60 ton/yr
2,2,4 Trimethylpentane:	4.00E-05 lb/ton =	0.05 ton/yr	0.03 ton/yr
Methyl chloroform:	4.8E-05 lb/ton =	0.06 ton/yr	0.03 ton/yr
Propionaldehyde	1.30E-04 lb/ton =	0.17 ton/yr	0.09 ton/yr
Quinone	1.60E-04 lb/ton =	0.21 ton/yr	0.10 ton/yr
Toluene:	2.90E-03 lb/ton =	3.81 ton/yr	1.90 ton/yr
Total PAH HAPs:	1.100E-04 lb/ton =	0.14 ton/yr	0.07 ton/yr
Xylene:	2.00E-04 lb/ton =	0.26 ton/yr	0.13 ton/yr
Total HAPs =		11.28 ton/yr	5.62 ton/yr

**** summary of source HAP emissions ****

potential to emit Hazardous Air Pollutants (HAPs):		limited emissions Hazardous Air Pollutants (HAPs):	
Acetaldehyde:	0.420 ton/yr	Acetaldehyde:	0.210 ton/yr
Acrolein:	0.034 ton/yr	Acrolein:	0.017 ton/yr
Arsenic:	0.318 ton/yr	Arsenic:	0.000 ton/yr
Benzene:	0.512 ton/yr	Benzene:	0.255 ton/yr
Beryllium:	0.001 ton/yr	Beryllium:	0.000 ton/yr
Cadmium:	0.027 ton/yr	Cadmium:	0.000 ton/yr
Chromium:	0.058 ton/yr	Chromium:	0.000 ton/yr
Cobalt:	0.001 ton/yr	Cobalt:	0.000 ton/yr
Ethyl benzene:	0.315 ton/yr	Ethyl benzene:	0.157 ton/yr
Formaldehyde:	4.132 ton/yr	Formaldehyde:	2.089 ton/yr
HCl:	76.400 ton/yr	HCl:	9.900 ton/yr
Hexane:	1.209 ton/yr	Hexane:	0.603 ton/yr
Lead:	0.541 ton/yr	Lead:	0.000 ton/yr
Manganese:	0.197 ton/yr	Manganese:	0.000 ton/yr
Methyl chloroform:	0.063 ton/yr	Methyl chloroform:	0.031 ton/yr
Mercury:	0.001 ton/yr	Mercury:	0.000 ton/yr
Nickel:	0.032 ton/yr	Nickel:	0.000 ton/yr
Propionaldehyde:	0.171 ton/yr	Propionaldehyde:	0.085 ton/yr
Phenol:	0.006 ton/yr	Phenol:	0.006 ton/yr
Quinone:	0.210 ton/yr	Quinone:	0.105 ton/yr
Selenium:	0.006 ton/yr	Selenium:	0.000 ton/yr
2,2,4 Trimethylpentane:	0.053 ton/yr	2,2,4 Trimethylpentane:	0.026 ton/yr
Toluene:	3.811 ton/yr	Toluene:	1.899 ton/yr
Total PAH HAPs:	0.200 ton/yr	Total PAH HAPs:	0.128 ton/yr
Xylene:	0.277 ton/yr	Xylene:	0.145 ton/yr
Total:	89.00 ton/yr	Total:	15.66 ton/yr

**** miscellaneous ****

326 IAC 7 Compliance Calculations:

The following calculations determine the maximum sulfur content of distillate # 2 fuel oil allowable by 326 IAC 7:

$$0.5 \text{ lb/MMBtu} \times 139,000 \text{ Btu/gal} = 69.5 \text{ lb/1000gal}$$

$$69.5 \text{ lb/1000gal} / 142 \text{ lb/1000 gal} = 0.5 \%$$

Sulfur content must be less than or equal to 0.5% to comply with 326 IAC 7.

The following calculations determine the maximum sulfur content of # 4 fuel oil allowable by 326 IAC 7:

$$1.6 \text{ lb/MMBtu} \times 138,000 \text{ Btu/gal} = 220.8 \text{ lb/1000gal}$$

$$220.8 \text{ lb/1000gal} / 150 \text{ lb/1000 gal} = 1.5 \%$$

Sulfur content must be less than or equal to 1.5% to comply with 326 IAC 7.

The following calculations determine the maximum sulfur content of residual # 5 fuel oil allowable by 326 IAC 7:

$$1.6 \text{ lb/MMBtu} \times 140,000 \text{ Btu/gal} = 224 \text{ lb/1000gal}$$

$$224 \text{ lb/1000gal} / 150 \text{ lb/1000 gal} = 1.5 \%$$

Sulfur content must be less than or equal to 1.5% to comply with 326 IAC 7.

The following calculations determine the maximum sulfur content of residual # 6 fuel oil allowable by 326 IAC 7:

$$1.6 \text{ lb/MMBtu} \times 150,000 \text{ Btu/gal} = 240 \text{ lb/1000gal}$$

$$240 \text{ lb/1000gal} / 150 \text{ lb/1000 gal} = 1.6 \%$$

Sulfur content must be less than or equal to 1.6% to comply with 326 IAC 7.

The following calculations determine the maximum sulfur content of re-refined waste oil allowable by 326 IAC 7:

$$1.6 \text{ lb/MMBtu} \times 140,000 \text{ Btu/gal} = 224 \text{ lb/1000gal}$$

$$224 \text{ lb/1000gal} / 150 \text{ lb/1000 gal} = 1.5 \%$$

Sulfur content must be less than or equal to 1.5% to comply with 326 IAC 7.

326 IAC 6-3-2 Compliance Calculations:

The following calculations determine compliance with 326 IAC 6-3-2 for the aggregate drying process with a process weight rates in excess of 30 tons per hour:

$$\text{limit} = 55 * (300 \wedge 0.11) - 40 = 63.00 \text{ lb/hr or } 275.95 \text{ ton/yr}$$

Since the emission limits pursuant to 326 IAC 6.5-1-2 and Subpart I of 40 CFR part 60 are more stringent than this limit, the limit pursuant to 326 IAC 6-3-2 does not apply. The emission limits pursuant to 326 IAC 6.5-1-2 and Subpart I shall also render the requirements of 326 IAC 2-2 (PSD) not applicable.

PM-10 Emission Limit for Aggregate Dryer:

(99.90 tons PM-10/yr -	32.87	tons PM-10/yr from other sources)			
=					(Will be able to comply)
	67.03 tons PM-10/yr	=	15.30 lbs/hr		
Controlled PM-10 emissions from the aggregate dryer are			0.97 lbs/hr <	15.30	lbs/hr
Based on a asphalt mix throughput max of 1,309,846 tons/yr, this emission limit is equivalent to				0.102	lb PM-10 per ton
of asphalt mix.					

PM Emission Limit for Aggregate Mixer and Dryer:

(249.90 tons PM/yr -	100.86	tons PM/yr from other sources)			
=					(Will be able to comply)
	149.04 tons PM/yr	=	34.03 lbs/hr		
Controlled PM emissions from the aggregate dryer are			4.19 lbs/hr <	34.03	lbs/hr
Based on a asphalt mix throughput max of 1,309,846 tons/yr, this emission limit is equivalent to				0.228	lb PM per ton
of asphalt mix.					

40 CFR Part 60.90, Subpart I (Standards of Performance for Hot Mix Asphalt Plants) and 326 IAC 6.5-1-2 Compliance Calculations:

The following calculations determine compliance with NSPS 40 CFR Part 60.90, Subpart I, which limits stack emissions from asphalt plants to 0.04 gr/dscf and 326 IAC 6.5-1-2 which limits emissions from asphalt plants to 0.03 gr/dscf : (Will be able to comply)

Aggregate Dryer and Mixer Baghouse:					
$\frac{18.35 \text{ ton/yr} *}{525,600 \text{ min/yr} *}$	$\frac{2000 \text{ lb/ton} *}{33,205 \text{ dscf/min}}$	$\frac{7000 \text{ gr/lb} =}{}$			0.015 gr/dscf
	Allowable particulate emissions under NSPS equate to	49.86 tons per year.			11.38 lbs/hr
	Allowable particulate emissions under 326 IAC 6.5-1-2 equate to	37.40 tons per year.			8.54 lbs/hr

Note: SCFM = $\frac{47,000 \text{ acfm} * (460 + 68) * (1.0 - 0.05)}{33,205 \text{ scfm}}$

Assumes exhaust gas temperature of 250F, and exhaust gas flow of 47,000 acfm.