

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR MANAGEMENT**

Lucas Brothers Paving, Inc. (Portable)

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

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 and 326 IAC 2-1-3.2, 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.

Operation Permit No.: F019-7695-03307	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM), and 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 batch plant.

Responsible Official: George Lucas Jr.
Initial Source Address: Sames Road, Clarksville, Indiana 47131
Mailing Address: 885 North Gardener Street, Scottsburg, Indiana 47170
SIC Code: 2951
Initial County Location: Clark
County Status: Nonattainment for particulate matter and volatile organic compound;
attainment for all other criteria pollutants
Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor Source under PSD and Emission Offset Rules

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) rotary aggregate drum dryer and mixer capable of processing 225 tons per hour of raw materials, equipped with one (1) 86 million British thermal units per hour natural gas fired burner with No. 2 diesel oil as a back-up fuel;
- (b) one (1) asphalt batch tower with a maximum capacity of 225 tons per hour of raw materials, consisting of a hot aggregate elevator, screen, hot aggregate bins and weigh hopper, liquid asphalt weigh hopper, pug mill mixer, drag-slat conveyor, and a 600 ton capacity asphalt mix storage bin;
- (c) one (1) jetpulse baghouse for aggregate drum dryer and mixer, and batch tower particulate matter (PM) emissions control, exhausting at one (1) stack identified as SV1; and
- (d) production of stockpile mix.

A.3 Insignificant Activities [326 IAC 2-7-1(20)] [326 IAC 2-8-3(c)(3)(I)]

This portable source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- (a) one (1) natural gas fired hot oil heater using No. 2 diesel oil as a backup fuel, with a maximum rated capacity of 2.0 million British thermal units per hour, exhausting at one (1) stack identified as SV3;
- (b) one (1) cold aggregate feed system, consisting of four (4) cold aggregate feeder bins with a total capacity of 120 tons and one (1) belt conveyor;
- (c) one (1) liquid asphalt storage tank with a maximum storage capacity of 17,500 gallons, exhausting at one (1) stack identified as SV2;
- (d) two (2) aggregate storage piles with a maximum total storage capacity of 60,000 tons;

- (e) paved roads with public access;
- (f) one (1) quality assurance laboratory; and
- (g) one (1) No. 2 diesel oil storage tank with a maximum storage capacity of 10,000 gallons.

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 Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions Superseded [326 IAC 2]

This permit supersedes the operating conditions of all construction and operating permits issued to this portable source under 326 IAC 2 prior to the effective date of this FESOP.

SECTION B GENERAL CONDITIONS

B.1 General Requirements [IC 13-15] [IC 13-17]

The Permittee shall comply with the provisions of IC 13-15 (Permits Generally), IC 13-17 (Air Pollution Control) and the rules promulgated thereunder.

B.2 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, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-7 shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

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

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

B.5 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.6 Severability [326 IAC 2-8-4(4)] [326 IAC 2-8-7(a)(3)]

- (a) The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- (b) Indiana 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.

B.7 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.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that IDEM, OAM, 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.
- (c) Upon request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. For information claimed to be confidential, the Permittee shall furnish such records directly to the U.S. EPA and IDEM, OAM, along with a claim of confidentiality.

Such confidentiality claims shall meet the requirements of 40 CFR 2, Subpart B (when submitting to U.S. EPA) and 326 IAC 17 (when submitting to IDEM, OAM).

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAM 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.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit constitutes a violation of the Clean Air Act and is grounds for:
- (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) 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.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)]

- (a) Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this permit, 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) This certification shall be submitted on the attached Certification Form.
- (c) A responsible official is defined at 326 IAC 2-7-1(33).

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

- (a) The Permittee shall annually certify that this source has complied with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) This annual compliance certification report required by this permit shall be timely if delivered by any method and received and stamped by IDEM, OAM, on or before the date it is due. [326 IAC 2-5-3]
- (c) The annual compliance certification report shall include the following:
- (1) The 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, IDEM, OAM, may require to determine the compliance status of the source.
- (d) The Permittee shall also annually certify that this source is in compliance with additional requirements as may be specified under Sections 114(a)(3) and 504(b) of the Clean Air Act.

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

- (a) The Permittee shall prepare, maintain and implement Preventive Maintenance Plans (PMP) within ninety (90) days after the issuance of this permit, including the following information on each:
- (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;
 - (3) Corrective actions that will be implemented in the event an inspection indicates an out of specification situation;
 - (4) A time schedule for taking such corrective actions including a schedule for devising additional corrective actions for situations that may not have been predicted; and
 - (5) Identification and quantification of the replacement parts which will be maintained in inventory for quick replacement.

- (b) PMPs shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

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 describes 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, OAM, 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 No.: 1-800-451-6027 (ask for Office of Air Management, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAM, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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 the "responsible official" as defined by 326 IAC 2-7-1(33).

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

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

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) Written notification shall be submitted on the attached Deviation Occurrence Reporting Forms or their substantial equivalent.

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP 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)]
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM 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, OAM, 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, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

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

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM and shall include, at minimum, 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(20).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

- (1) The Permittee has a duty to submit a timely and complete permit renewal application. A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) Delivered by any method and received and stamped by IDEM, OAM, on or before the date it is due. [326 IAC 2-5-3]
- (2) If IDEM, OAM upon receiving a timely and complete 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.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
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, OAM 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, OAM, any additional information identified as needed to process the application.

B.18 Administrative Permit Amendment [326 IAC 2-8-10]

- (a) An administrative permit amendment is a FESOP revision that makes changes of the type specified under 326 IAC 2-8-10(a).
- (b) An administrative permit amendment may be made by IDEM, OAM, consistent with the procedures specified under 326 IAC 2-8-10(b).
- (c) The Permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Minor Permit Modification [326 IAC 2-8-11(a)] [326 IAC 2-8-11(b)(1) and (2)]

- (a) A permit modification is any revision to this permit that cannot be accomplished as an administrative permit amendment under 326 IAC 2-8-10.
- (b) Minor modification of this permit shall follow the procedures specified under 326 IAC 2-8-11(b)(1)(A) through (F).
- (c) An application requesting the use of minor modification procedures shall meet the requirements of 326 IAC 2-8-3(c) and shall include the information required in 326 IAC 2-8-11(b)(3)(A) through (D).
- (d) The Permittee may make the change proposed in its minor permit modification application immediately after it files such application unless the change is subject to the construction permit requirements of 326 IAC 2-1, 326 IAC 2-2, or 326 IAC 2-3. After the Permittee makes the change allowed under minor permit modification procedures, and until IDEM, OAM takes any of the actions specified in 326 IAC 2-8-11(b)(5), the Permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period, the Permittee need not comply with the existing permit terms and conditions it seeks to modify. If the Permittee fails to comply with its proposed permit terms and conditions during this time period, the

existing permit terms and conditions it seeks to modify may be enforced against it. [326 IAC 2-8-11(b)(6)]

B.20 Significant Permit Modification [326 IAC 2-8-11(d)]

- (a) Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments.
- (b) Any significant change in existing monitoring permit terms or conditions and every relaxation of reporting or record keeping permit terms or conditions of this permit shall be considered significant.
- (c) Nothing in 326 IAC 2-8-11(d) shall be construed to preclude the Permittee from making changes consistent with 326 IAC 2-8 that would render existing permit compliance terms and conditions irrelevant.
- (d) Significant modifications of this permit shall meet all requirements of 326 IAC 2-8, including those for application, public participation, and review by U.S. EPA, as they apply to permit issuance and renewal.

B.21 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-8-11(b)(2)]

Notwithstanding 326 IAC 2-8-11(b)(1)(D)(i) and 326 IAC 2-8-11(c)(1), minor permit modification procedures may be used for modifications of this permit involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches to the extent that such minor permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated by U.S. EPA.

B.22 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-8-15(b)]

The Permittee may make Section 502(b)(10) of the Clean Air Act changes without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional condition:

For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

B.23 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without 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 2-1 has been obtained;
 - (3) The changes do not result in emissions which exceed the emissions allowable under 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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

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

- (b) For each such change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(33).

- (c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in 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).
- (d) 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, OAM or U.S. EPA is required.
- (e) 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.24 Construction Permit Requirement [326 IAC 2]

Modification, construction, or reconstruction shall be permitted as required by and in accordance with 326 IAC 2.

B.25 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, 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) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
[326 IAC 2-8-5(a)(4)]

B.26 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-8-10]

Pursuant to 326 IAC 2-1-6 and 2-8-10:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change. Notification shall include a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current Permittee and the new owner.
- (b) The written notification shall be sufficient to transfer the permit to the new owner.
- (c) IDEM, OAM shall reserve the right to issue a new permit.

B.27 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAM, consistent with the fee schedule established in 326 IAC 2-8-16.
- (b) Failure to pay may result in administrative enforcement action, revocation of this permit, referral to the Office of Attorney General for collection, or other appropriate measures.
- (c) The Permittee shall pay the annual fee within thirty (30) calendar days of receipt of a billing by IDEM, OAM, or in a time period that is consistent with the payment schedule issued by IDEM, OAM.

- (d) If the Permittee does not receive a bill from IDEM, OAM, thirty (30) calendar days before the due date, the Permittee shall call the following telephone numbers: 1-800-451-6027 or 317-233-5674 (ask for OAM, Data Support Section), to determine the appropriate permit fee. The applicable fee is due April 1 of each year.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

- (a) Pursuant to 326 IAC 2-8:
- (1) The potential to emit any regulated pollutant from the entire source shall be limited to less than one-hundred (100) tons per three hundred sixty-five (365) consecutive day period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset) 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 three hundred sixty-five (365) consecutive day 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 three hundred sixty-five (365) consecutive day period.
- (b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(20). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does exceed the above specified limits.
- (c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2(Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

- (a) Visible emissions shall not exceed an average of thirty percent (30%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

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

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

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

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

The Permittee shall be in violation of 326 IAC 6-4 (Fugitive Dust Emissions) if any of the criteria specified in 326 IAC 6-4-2 (1) through (4) are violated. Observations of visible emissions crossing the property line of the source at or near ground level must be made by a qualified representative of IDEM. [326 IAC 6-4-5(c)].

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on December 13, 1996. The plan consists of watering the following fugitive emission activities on an as needed basis:

- (a) Paved roads and parking lots due to vehicular traffic;
- (b) Aggregate stockpile operations; and
- (c) Outdoor aggregate conveying and handling.

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

- (a) All equipment that may emit pollutants into the ambient air shall be properly operated to meet the requirements of this permit and maintained in accordance with Section B - Preventive Maintenance Plan.
- (b) Unless otherwise stated in this permit, all air pollution control equipment listed in this permit shall be operated at all times that the emission units vented to the control equipment are in operation.
- (c) The Permittee shall perform all necessary maintenance according to the Preventive Maintenance Plan and make all necessary attempts to keep all air pollution control equipment in proper operating condition at all times such that the requirements of this permit are met.

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

- (a) The Permittee shall comply with the provisions of 326 IAC 1-7 (Stack Height Provisions), that apply to 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.
- (b) Stacks shall be constructed using good engineering practice (GEP) according to the following equation:

$$S = H + 1.5 (L)$$

where: S = Stack height, (feet)
H = Height of supporting or nearby structure (whichever is largest), (feet)
L = Lesser dimension (height or width) of the structure chosen for H, (feet)

- (c) Any changes in the applicable stacks require prior approval from IDEM, OAM.

C.9 Asbestos Abatement Projects - Accreditation [326 IAC 14-10] [326 IAC 18-1]
[40 CFR 61, Subpart M]

Prior to the commencement of any demolition or renovation activities, the Permittee shall use an Indiana accredited asbestos inspector to inspect thoroughly the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable asbestos containing material. The requirement that the inspector must be Indiana accredited is not federally enforceable.

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

C.10 Performance Testing [326 IAC 3-2.1]

All testing shall be performed according to the provisions of 326 IAC 3-2.1 (Source Sampling Procedures), utilizing methods approved by the IDEM,OAM.

The test protocol shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days before the intended test date.[326 IAC 3-2.1-2(a)]

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

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Compliance with applicable requirements shall be documented in accordance with the provisions of 326 IAC 2-8-4(3). The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee shall notify:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

in writing no more than ninety (90) days after receipt of this permit, with full justification of the reasons for inability to meet this date and a schedule which it expects to meet. If a denial of the request is not received before the monitoring is fully implemented, the schedule shall be deemed approved.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(33).

C.12 Maintenance of Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

(a) The Permittee shall perform all necessary maintenance and make all necessary and reasonable attempts to keep all required monitoring equipment in proper operating condition at all times.

- (b) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (c) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment.
- (d) Preventive Maintenance Plans of the monitors shall be implemented. In addition, prompt corrective action shall be initiated whenever indicated.

C.13 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the requirements of this permit shall be performed, whenever applicable according to the provisions of 326 IAC 3, or 40 CFR 60, Appendix A, as appropriate, unless some other method is specified in this permit.

C.14 Pressure Gauge Specifications

Whenever a condition in this permit requires the taking of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

C.15 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18-1] [40 CFR 61.140]

- (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) Written notification is to be 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
 - (3) Waste disposal site.
- (c) The Permittee shall postmark or deliver the notice 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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory 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) 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.

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

C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance is present in more than the threshold quantity that is subject to 40 CFR 68, 40 CFR 68 is an applicable requirement, and the Permittee shall:

- (a) Submit:
- (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
 - (2) As part of the compliance certification submitted under 326 IAC 2-8-5(a)(1), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
 - (3) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM, that the Risk Management Plan is being properly implemented.

C.17 Compliance Monitoring Plan - Failure to Take Corrective Action [326 IAC 2-8-4(3)]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
- (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;

- (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) The Preventive Maintenance Plan described in Section B, Preventive Maintenance Plan, of this permit.
- (b) For each compliance monitoring condition of this permit appropriate corrective actions, as described in the Preventive Maintenance Plan, shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the corrective actions within the prescribed time contained within the Preventive Maintenance Plan shall constitute a violation of the permit unless taking the corrective action set forth in the Preventive Maintenance Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee may be excused from taking further corrective action for any of the following reasons:
- (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further corrective actions providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied; or
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The Permittee determines that the process has already returned to operating within "normal" parameters and no corrective action is required.
- (d) Records shall be kept of all instances in which the action values were not met and of all corrective actions taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

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

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit, exceed the level specified in any condition of this permit, appropriate corrective actions shall be taken. A description of these corrective actions shall be submitted to IDEM, OAM, within thirty (30) days of receipt of the test results. These corrective actions shall be implemented immediately unless notified by IDEM, OAM, that they are not acceptable. The Permittee shall make every effort to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM, reserves the right to utilize enforcement activities to resolve the non-compliant stack test.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

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

C.19 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

- (a) The Permittee shall submit a certified, annual emission statement that meets the requirements of 326 IAC 2-6 (Emission Reporting). This annual statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) This annual emission statement required by this permit shall be timely if delivered by any method and received and stamped by IDEM, OAM, on or before the date it is due. [326 IAC 2-5-3]

C.20 Monitoring Data Availability

- (a) All observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) When the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements in (a) above.

C.21 General Record Keeping Requirements [326 IAC 2-8-4(3)(B)]

- (a) Records of all required monitoring data and support information 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 kept at the source location and available within one (1) hour upon verbal request of an IDEM, OAM, representative, for a minimum of three (3) years. They may be stored elsewhere for the remaining two (2) years providing they are made available within thirty (30) days after written request.
- (b) Records of required monitoring information shall include, where applicable:
- (1) The date, place, and time of sampling or measurements;

- (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
- (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of any required preventive maintenance and corrective actions that were implemented. Such records shall briefly describe what was done and indicate who did it. Such records may include, but are not limited to: work orders, quality assurance procedures, quality control procedures, operator's standard operating procedures, manufacturer's specifications or their equivalent, and equipment "troubleshooting" guidance.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.22 General Reporting Requirements [326 IAC 2-8-4(3)(C)]

- (a) 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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be timely if delivered by any method and received and stamped by IDEM, OAM, on or before the date it is due. [326 IAC 2-5-3]
 - (c) Unless otherwise specified in this permit any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.
 - (d) All instances of deviations from any requirements of this permit must be clearly identified in such reports.
 - (e) Any corrective actions taken as a result of an exceedance of a limit, an excursion from the parametric values, or a malfunction that may have caused excess emissions must be clearly identified in such reports.
 - (f) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

Portable Source Requirement

C.23 Relocation of Portable Sources [326 IAC 2-1-6(b)]

- (a) This permit is approved for operation in all areas of Indiana except Lake and Porter Counties (which are severe nonattainment areas for ozone). This determination is based on the requirements of Prevention of Significant Deterioration in 326 IAC 2-2 and 40 CFR 52.21, and Emission Offset requirements in 326 IAC 2-3. A thirty (30) day advance notice of relocation must be given to IDEM, OAM and a "Relocation Site Approval" letter must be obtained before relocating.
- (b) The Permittee shall also notify the applicable local air pollution control agency when relocating to or from one of the following:
 - (1) Madison County - (Anderson Office of Air Management)
 - (2) City of Evansville plus four (4) miles beyond the corporate limits but not outside Vanderburgh County - (Evansville EPA)
 - (3) City of Gary - (Gary Division of Air Pollution)
 - (4) City of Hammond - (Hammond Department of Environmental Management)
 - (5) Marion County - (Indianapolis Air Pollution Control Agency)
 - (6) St. Joseph County - (St. Joseph County Health Department)
 - (7) Vigo County - (Vigo County Air Pollution Department)
- (c) That a valid operation permit consists of this document and any subsequent "Relocation Site Approval" letter specifying the current location of the portable plant.
- (d) When relocating the portable plant adjacent to, or at the site of another source owned or operated by the Permittee, all requirements in 326 IAC 2-8 (FESOP Program) shall be met for both sources combined, unless the Permittee obtains from IDEM, OAM a permit that meets the requirements in 326 IAC 2-7 (Title V Program).

C.24 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

- (a) one (1) rotary aggregate drum dryer and mixer capable of processing 225 tons per hour of raw materials, equipped with one (1) 86 million British thermal units per hour natural gas fired burner with No. 2 diesel oil as a back-up fuel;
- (b) one (1) asphalt batch tower with a maximum capacity of 225 tons per hour of raw materials, consisting of a hot aggregate elevator, screen, hot aggregate bins and weigh hopper, liquid asphalt weigh hopper, pug mill mixer, drag-slat conveyor, and a 600 ton capacity asphalt mix storage bin; and
- (c) one (1) jetpulse baghouse for aggregate drum dryer and mixer, and batch tower particulate matter (PM) emissions control, exhausting at one (1) stack identified as SV1.

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

D.1.1 Particulate Matter (PM) Emissions [326 IAC 6-1-2] [326 IAC 6-3]

Pursuant to 326 IAC 6-1-2(c)(1)(A) (Particulate Emission Limitations: Asphalt Concrete Plants), the particulate matter emissions from the aggregate mixing and drying and batch tower operations shall not exceed 0.1 grain per dry standard cubic foot (gr/dscf). This limitation is equivalent to particulate matter emissions of 31.0 pounds per hour. This limitation shall also satisfy the particulate matter emissions limitation of 326 IAC 6-3 (Process Operations).

D.1.2 Emission Offset Minor Limit [326 IAC 2-3]

The production of hot mix asphalt shall be limited as follows:

- (a) Total asphalt produced shall be limited to 626,358 tons per twelve (12) month period, rolled on a consecutive monthly basis. This production limit is equivalent to particulate matter emissions of 43.1 tons per 12-month period for the facility and 95.1 tons per 12-month period for the source. The total amount of asphalt produced each month shall not exceed the difference between the annual limit minus the sum of actual product from the previous eleven (11) months.
- (b) During the first twelve (12) months of operation under this permit, the asphalt production shall be limited such that the total input divided by the accumulated months of operation shall not exceed 52,196.5 tons per month.
- (c) Compliance with this limit makes 326 IAC 2-2 not applicable. Compliance with this limit makes 326 IAC 2-3 (Emission Offset) not applicable.

This condition will supersede Operation Condition 4 of Construction Permit CP019-2492-03307, issued on April 25, 1996.

D.1.3 Particulate Matter (PM-10) Emissions [326 IAC 2-8-4(1)]

Pursuant to 326 IAC 2-8-4, emissions of particulate matter with an aerodynamic diameter less than 10 microns (PM-10) from the aggregate mixing and drying and batch tower operations shall not exceed 18.4 pounds per hour, including both filterable and condensable fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.1.4 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 86 million British thermal units per hour burner for the aggregate dryer shall be limited to 0.5 pounds per million British thermal units heat input or a sulfur content of less than or equal to 0.5 percent when using No. 2 diesel oil.

Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction.

D.1.5 Back-up Fuel Usage

The input of No. 2 diesel oil as a back-up fuel to the 86 million British thermal units per hour burner for the aggregate dryer shall be limited as follows:

- (a) Total input shall not exceed 2.493 million gallons per twelve (12) month period, rolled on a consecutive monthly basis, based on the sulfur content of 0.5% in the No. 2 fuel oil, and the total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months.
- (b) During the first twelve (12) months of operation under this permit, the input of No. 2 diesel fuel oil shall be limited such that the total input divided by the accumulated months of operation shall not exceed 0.208 million gallons per month.
- (c) This fuel usage limitation will satisfy the requirements of 326 IAC 2-8-4. Therefore, the requirements of 326 IAC 2-7 do not apply. This limitation will also satisfy the requirements of 326 IAC 2-2 and 326 IAC 2-3.

D.1.6 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 these facilities and any control devices.

Compliance Determination Requirements

D.1.7 Testing Requirements [326 IAC 2-8-5(1)]

During the period within 180 days after issuance of this permit, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10.

This condition will supersede Operation Condition 11 of Construction Permit CP-019-2492-03307, issued on April 25, 1996.

D.1.8 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-3-4, the Permittee shall demonstrate that the sulfur content of diesel oil burned as fuel by the 86 million British thermal units per hour burner for the aggregate dryer does not exceed five tenths percent (0.5%) by weight by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification;

- (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; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 86 million British thermal units per hour burner for the aggregate dryer using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-2.1.

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

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

D.1.9 Visible Emissions Notations

- (a) Daily visible emission notations of the aggregate conveying, transfer, and storage pile activity; paved roads; and rotary dryer stack exhaust shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.1.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate mixing and drying, and batch tower process, at least once daily when the asphalt batch plant is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 4.0 and 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

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

D.1.11 Broken Bag or Failure Detection

In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced.
- (b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

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

D.1.12 Record Keeping Requirements

- (a) To document compliance with Condition D.1.9, the Permittee shall maintain records of daily visible emission notations of the aggregate conveying, transfer, and storage pile activity; paved roads; and rotary dryer stack exhaust.
- (b) To document compliance with Condition D.1.10, the Permittee shall maintain the following:
 - (1) Daily records of the following operational parameters during normal operation:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency and differential pressure.
 - (2) Documentation of all corrective actions implemented, per event .
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
- (c) To document compliance with Conditions D.1.4 and D.1.5, the Permittee shall maintain records in accordance with (1) through (6) below. The fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual usage since last compliance determination period and value calculated per limitation;
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and
 - (4) Fuel supplier certifications.The fuel supplier certification shall contain, as a minimum, the following:
 - (5) The name of the fuel supplier; and

- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

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

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

D.1.13 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.2, D.1.4 and D.1.5 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.2 FACILITY OPERATION CONDITIONS

(d) production of stockpile mix.

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

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

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), the use of cutback asphalt or asphalt emulsion shall not contain more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

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

D.2.2 Asphalt Emulsion Usage

The production of stockpile mix shall be limited to 209,575 tons per twelve (12) month period, rolled on a consecutive monthly basis. This is equivalent to 4,526.8 tons of asphalt emulsion used per twelve (12) month period, rolled on a consecutive monthly basis, based on a maximum of six percent (6%) of asphalt emulsion in the stockpile mix produced and seven percent (7%) distillate oil present in the asphalt emulsion. The total amount of asphalt emulsion used each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months. During the first twelve (12) months of operation under this permit, the usage of asphalt emulsion shall be limited such that the total tons divided by the accumulated months of operation shall not exceed 377.3 tons per month. Therefore, the requirements of 326 IAC 2-7 will not apply. This limitation on asphalt emulsion usage will also render the requirements of 326 IAC 2-2 and 326 IAC 2-3 not applicable.

Compliance Determination Requirements

D.2.3 Testing Requirements [326 IAC 2-8-5(1)]

Testing of this facility is not specifically required by this permit. However, this does not preclude testing requirements on this facility under 326 IAC 2-1-4(f) and 326 IAC 2-8-4.

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

D.2.4 Record Keeping Requirements

- (a) To document compliance with Condition D.2.2, the Permittee shall maintain records of the amount of asphalt emulsion used in the production of stockpile mix each month. The records shall be complete and sufficient to establish compliance with the VOC usage limit established in this permit. The records shall contain a minimum of the following:
- (1) Calendar dates covered in the compliance determination period;
 - (2) Actual amount of asphalt emulsion used since last compliance determination period and value calculated per limitation;
 - (3) type of asphalt emulsion used; and
 - (4) percent distillate fuel oil in asphalt emulsion.

D.2.5 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.3

FACILITY OPERATION CONDITIONS

- | |
|--|
| (g) one (1) No. 2 diesel oil storage tank with a maximum storage capacity of 10,000 gallons. |
|--|

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

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-9]

Pursuant to 326 IAC 8-9-6 (Volatile Organic Liquid Storage Vessels), the owner or operator of a stationary vessel with a capacity of less than thirty-nine thousand (39,000) gallons, and which is not exempt, shall maintain a record and submit to the department a report containing the following information on the vessel:

- (a) The vessel identification number.
- (b) The vessel dimensions.
- (c) The vessel capacity.
- (d) A description of the emission control equipment for each vessel described in 326 IAC 8-9-4(a) and 4(b), if applicable, or a schedule for installation of emission control equipment on vessels described in 326 IAC 8-9-4(a) and 4(b), if applicable, with a certification that the emission control equipment meets the applicable standards.

The owner or operator of a stationary vessel shall keep all records as described for the life of the vessel.

State Form 47738 (5-96)

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

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

Source Name: Lucas Brothers Paving, Inc.
Initial Source Address: Sames Road, Clarksville, Indiana 47131
Mailing Address: 885 North Gardener Street, Scottsburg, Indiana 47170
FESOP No.: F019-7695-03307

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:

- 9 Annual Compliance Certification Letter
- 9 Deviation Occurrence Reporting Form (For Control Equipment Monitoring)
- 9 Deviation Occurrence Reporting Form (For Material Usage, Quality, Etc.)
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Other (specify) _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

State Form 47739 (5-96)

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
 DEVIATION OCCURRENCE REPORT**
 (For Control Equipment Monitoring Only)

Source Name: Lucas Brothers Paving, Inc.
 Initial Source Address: Sames Road, Clarksville, Indiana 47131
 Mailing Address: 885 North Gardener Street, Scottsburg, Indiana 47170
 FESOP No.: F019-7695-03307

If a deviation has occurred, a separate copy of this report must be submitted for each monitoring device on all control equipment listed in this permit. Attach a signed certification to complete this report.	
Stack/Vent ID:	
Control Equipment: (ex: thermal oxidizer, scrubber, baghouses)	
Type of Parameter Monitored: (ex: temperature, pressure drop, efficiency)	
9 Continuously	9 Periodically, at a frequency of:
Parameter Operating Restrictions/Range: (ex: 1,400°F, 2-4 psi pressure drop)	
Report Covers From: (date: month/day/yr)	To:
9 Summary of Deviations from the Parameter Restriction/Range During the Monitoring Period are Identified Below. Complete Records Maintained at the Facility.	

	For Parameter Recorded Continuously	For Parameter Recorded Periodically
Total Unit Operating Time		
Total Time of Deviations (Identify All Deviations)		
Percent of Time Indicating Deviations ($[2]/[1] \times 100$)		

Date of Deviation	Start/Stop Time of Deviation (Continuous Monitoring Only)	Actual Value Recorded	Reason for Deviation & Corrective Action Taken

State Form 47741 (5-96)

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

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

Source Name: Lucas Brothers Paving, Inc.
Initial Source Address: Sames Road, Clarksville, Indiana 47131
Mailing Address: 885 North Gardener Street, Scottsburg, Indiana 47170
FESOP No.: F019-7695-03307

If a deviation has occurred a separate copy of this report must be submitted for **each** material type, quantity usage and operation limitation (except control equipment monitoring) listed in this permit .
Attach a signed certification to complete this report.

Stack/Vent ID:
Equipment/Operation:
Parameter Subject to Material Type, Quantity Usage or Operation Limitations Specified in the Permit: (ex: 2500 lb/day, 300 hours/yr, 5000 gallons/month)
Determination Period for this Parameter: (ex: 365-day rolling sum, fixed monthly rate)
9 Permit Has No Rate Limitations for this Parameter.
Content Restriction for this Parameter: (ex: maximum of 40% VOC in inks, 0.5% sulfur content)
Demonstration Method for this Parameter: (ex: MSDS, Supplier, material sampling & analysis)
9 Permit Has No Content Limitations for this Parameter.
Comments:

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

FESOP Quarterly Report

Source Name: Lucas Brothers Paving, Inc.
 Initial Source Address: Sames Road, Clarksville, Indiana 47131
 FESOP No.: F019-7695-03307
 Facility: 86 million British thermal units burner for the aggregate dryer
 Parameter: sulfur dioxide (SO₂)
 Limits: 0.5 pounds SO₂ per MMBTU heat input per boiler and fuel oil sulfur content of 0.5% (weight)
 Usage Limits: (a) Total input of 2.493 million gallons (mmgal) per twelve (12) month period, rolled on a consecutive monthly basis, the total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months; and
 (b) During the first twelve (12) months of operation under this permit, the input of No. 2 diesel fuel oil shall be limited such that the total input divided by the accumulated months of operation shall not exceed 0.208 million gallons (mmgal) per month.

Year: _____

Month	Sulfur Content of #2 Oil (weight %)	Heat Content of #2 Oil (Btu/gallon)	SO ₂ Emissions (lb/MMBtu)	# 2 Oil Usage (mmgal/month)	Total Fuel Oil Usage last 12 months (mmgal)

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on: _____

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

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

FESOP Quarterly Report

Source Name: Lucas Brothers Paving, Inc.
Initial Source Address: Sames Road, Clarksville, Indiana 47131
FESOP No.: F019-7695-03307
Facility: Hot mix asphalt
Parameter: particulate matter (PM)
Usage Limit: (a) Total asphalt produced shall be limited to 626,358 tons per twelve (12) month period, rolled on a consecutive monthly basis. This production limit is equivalent to source wide PM emissions of 95.1 tons per 12-month period. The total amount of asphalt produced each month shall not exceed the difference between the annual limit minus the sum of actual product from the previous eleven (11) months.
(b) During the first twelve (12) months of operation under this permit, the asphalt production shall be limited such that the total input divided by the accumulated months of operation shall not exceed 52,196.5 tons per month.

Year: _____

Month	Hot Mix Asphalt Produced This Month (Tons)	Hot Mix Asphalt Produced Last 12 Months (Tons)

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on: _____

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

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

FESOP Quarterly Report

Source Name: Lucas Brothers Paving, Inc.
Initial Source Address: Sames Road, Clarksville, Indiana 47131
FESOP No.: F019-7695-03307
Facility: Asphalt emulsion for stockpile mix
Parameter: Volatile Organic Compounds (VOC)
Usage Limit: (a) 4,526.8 tons of asphalt emulsion used per twelve (12) month period, rolled on a consecutive monthly basis, based on a maximum of six percent (6%) of asphalt emulsion in the stockpile mix produced and seven percent (7%) distillate oil present in the asphalt emulsion. The total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months.
(b) During the first twelve (12) months of operation under this permit, the usage of asphalt emulsion shall be limited such that the total tons divided by the accumulated months of operation shall not exceed 377.3 tons per month.

Year: _____

Month	Asphalt Emulsion Usage This Month (Tons)	Total Usage Last 12 Months (Tons)

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

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

Indiana Department of Environmental Management Office of Air Management

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

Source Background And Description

Source Name: The Kentucky Stone Company
Initial Source Location: Sames Road, Clarksville, Indiana 47131
Initial County: Clark
SIC Code: 2951
Operation Permit No.: F019-7695-03307
Permit Reviewer: Michael Hirtler/EVP

The Office of Air Management (OAM) has reviewed a Federally Enforceable State Operating Permit (FESOP) application from The Kentucky Stone Company relating to the operation of a portable hot mix asphalt batch plant. This plant is owned by Lucas Brothers, Inc., but it has been leased to, and will be operated by The Kentucky Stone Company.

Permitted Emission Units and Pollution Control Equipment

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

Construction Permit CP019-2492-03307 issued April 15, 1996 to Lucas Brothers, Inc.:

- (a) one (1) rotary aggregate drum dryer and mixer capable of processing 225 tons per hour of raw materials, equipped with one (1) 86 million British thermal units per hour natural gas fired burner with No. 2 diesel oil as a back-up fuel;
- (b) one (1) asphalt batch tower with a maximum capacity of 225 tons per hour of raw materials, consisting of a hot aggregate elevator, screen, hot aggregate bins and weigh hopper, liquid asphalt weigh hopper, pug mill mixer, drag-slat conveyor, and a 600 ton capacity asphalt mix storage bin;
- (c) one (1) jetpulse baghouse for aggregate drum dryer and mixer, and batch tower particulate matter (PM) emissions control, exhausting at one (1) stack identified as SV1; and
- (d) production of stockpile mix.

Unpermitted Emission Units and Pollution Control Equipment

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

Emission Units and Pollution Control Equipment Under Enhanced New Source Review (ENSR)

There are no new facilities to be reviewed under the ENSR process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- (a) one (1) natural gas fired hot oil heater using No. 2 diesel oil as a backup fuel, with a maximum rated capacity of 2.0 million British thermal units per hour, exhausting at one (1) stack identified as SV3;
- (b) one (1) cold aggregate feed system, consisting of four (4) cold aggregate feeder bins with a total capacity of 120 tons and one (1) belt conveyor;
- (c) one (1) liquid asphalt storage tank with a maximum storage capacity of 17,500 gallons, exhausting at one (1) stack identified as SV2;
- (d) two (2) aggregate storage piles with a maximum total storage capacity of 60,000 tons;
- (e) paved roads with public access; and
- (f) one (1) quality assurance laboratory

Additionally, the source plans to install one (1) 10,000 gallon vessel to store No. 2 diesel oil for back-up fuel firing purposes. Due to the low vapor pressure of the liquid planned for storage and the capacity of the vessel, the planned tank is considered as an insignificant emission unit with no appreciable emissions and only an initial vessel specification reporting requirement (326 IAC 8-9). Consequently, this storage vessel was not considered pursuant to the requirements of 326 IAC 2-1-3.2 (Enhanced New Source Review).

Existing Approvals

This source has been operating under Construction Permit CP019-2492-03307, issued on April 25, 1996.

Enforcement Issue

There are no Enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP 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 application for the purposes of this review was received on December 13, 1996. Additional information was received on June 30, 1997.

Emissions Calculations

See Appendix A: Emissions Calculations for detailed calculations (six pages).

Potential Emissions

Pursuant to 326 IAC 1-2-55, Potential Emissions are defined as “emissions of any one (1) pollutant which would be emitted from a facility, if that facility were operated without the use of pollution control equipment unless such control equipment is necessary for the facility to produce its normal product or is integral to the normal operation of the facility.”

Pollutant	Potential Emissions (tons/year)
PM	31,613.5
PM-10	4,465.5
SO ₂	192.9
VOC	757.6
CO	13.9
NO _x	55.5

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

See attached spreadsheets for detailed calculations (six pages).

HAP	Potential Emissions (tons/year)
arsenic	0.0016
beryllium	0.0009
cadmium	0.0041
chromium	0.0252
lead	0.0034
manganese	0.0053
mercury	0.0011
nickel	0.064
acetaldehyde	0.631
benzene	0.345
ethylbenzene	3.25
formaldehyde	0.848
quinone	0.266
toluene	1.77
total polycyclic organic matter	0.125
total polycyclic organic matter	4.24
TOTAL	11.5822

See attached spreadsheets for detailed calculations (six pages).

- (a) The potential emissions (as defined in the Indiana Rule) of sulfur dioxide (SO₂), volatile organic compounds (VOC), and particulate matter with aerodynamic diameter at or below 10 microns (PM-10) are each greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

Limited Potential To Emit

- (a) To simplify record keeping and to accommodate unpredictable variations in production, the source has accepted federally enforceable production limitations that respectively limit potential to emit VOC, SO₂, and PM to 91.1, 91.8, and 95.1 tons per 12 consecutive month period. This limit was established at 11/12 ths of 99 tons per year, less insignificant activities, to eliminate the effect that daily variations would have on any 365 day period. This limit consists of:
 - (i) For VOC:
 - (1) 79.2 tons per year for the limited production of stockpile mix; and
 - (2) 12.6 tons per year for the remaining activities.
 - (ii) For SO₂:
 - (1) 86.7 tons per year for the limited use of #2 diesel oil in the dryer burner; and
 - (2) 4.4 tons per year for the remaining activities.
 - (iii) For PM:
 - (1) 43.1 tons per year for the limited production of hot mix asphalt; and
 - (2) 52.0 tons per year for the remaining activities.

The potential to emit PM from the entire source shall be limited to less than one-hundred (100) tons per three hundred sixty-five (365) consecutive day period. This limitation shall also make the requirements of 326 IAC 2-3 (Emission Offset) not applicable;
- (b) PM-10 emissions are limited to 99 tons per year and are controlled at 24.3 tons per year, consisting of approximately 18.3 tons per year for the insignificant activities.
- (c) The table below summarizes the total limited potential to emit of the significant and insignificant emission units.

Process/ facility	Limited Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Oil Heater**	0.13	0.11	4.39	0.05	0.32	1.26	0.05
Aggregate Mixing & Drying	43.09	6.07	86.73	12.53	13.18	52.74	11.48
Stockpile Mix	0.00	0.00	0.00	79.22	0.00	0.00	0.00
Conveying & ** Handling	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Paved Roads **	51.61	18.06	0.00	0.00	0.00	0.00	0.00
Storage **	0.24	0.08	0.00	0.00	0.00	0.00	0.00
Total Emissions	95.08	24.33	91.12	91.80	13.50	54.00	11.53

** These are insignificant activities.

Attached Tables A and B summarize the permit conditions and requirements.

County Attainment Status

The 225 ton per hour asphalt batch plant is a portable source initially located in Clark County. As a portable source the plant can be located in both attainment and nonattainment areas excluding severe nonattainment areas, specifically Lake and Porter Counties. Therefore, the criteria pollutant emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21, and the requirements for Emission Offset, 326 IAC 2-3.

Portable Source

- (a) Initial Location
This is a portable source and its initial location will be at Sames Road, Clarksville, Indiana 47131.
- (b) PSD and Emission Offset Requirements
The emissions from this portable source were reviewed both under the requirements of the Prevention of Significant Deterioration (PSD), 326 IAC 2-2, 40 CFR 52.21, and Emission Offset, 326 IAC 2-3.
- (c) Fugitive Emissions
Since there is an applicable New Source Performance Standard that was in effect on August 7, 1980 for this source category, the fugitive particulate emissions are counted toward determination of PSD and Emission Offset applicability.

Federal Rule Applicability

- (a) 40 CFR Part 60.90, Subpart I:
This portable asphalt batch plant is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90 through 60.93, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", because it was constructed prior to the June 11, 1973 applicability date.
- (b) 40 CFR Part 60.110 and 40 CFR Part 60.110a, Subpart K and Subpart Ka:
The 17,500 gallon liquid asphalt storage tank is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110 and 40 CFR Part 60.110a, Subpart K and Subpart Ka) "Standards of Performance for Storage Vessels for Petroleum Liquids", because it was constructed before June 11, 1973 and it is less than 40,000 gallons in capacity.
- (c) 40 CFR Part 60.110b, Subpart Kb:
This source plans to utilize No. 2 diesel oil as a back-up fuel in the rotary dryer burner. Presently, the plant does not have a permanent storage vessel for the back-up fuel, but plans a future installation of a tank whose capacity will not exceed 10,000 gallons. The 10,000 gallon #2 diesel fuel oil storage tank is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels", because it is less than 40 cubic meters (10,600 gallons) in capacity.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it is initially located in Clark County and the source has a potential to emit more than ten (10) tons per year of NO_x and VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirements as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the following limitations apply:

- (a) The input of No. 2 diesel oil, based on a maximum sulfur content of 0.5% (by weight) in the oil, to the 86 million British thermal units per hour dryer burner shall be limited to 2.493 million gallons per twelve (12) month period, rolled on a consecutive monthly basis. This fuel input limitation is equivalent to limiting source wide SO₂ emissions to 91.1 tons per year.
- (b) The production of stockpile mix is limited to 209,575 tons per twelve (12) month period, rolled on a consecutive monthly basis. This stockpile mix production limitation is equivalent to limiting the usage of asphalt emulsion to 4,526.8 tons per twelve (12) month period, rolled on a consecutive monthly basis (based on 7% distillate oil content in the asphalt emulsion), as well as limiting source wide VOC emissions to 91.8 tons per year.
- (c) The production of hot mix asphalt is limited to 598,418 tons per twelve (12) month period, rolled on a consecutive monthly basis. This hot mix asphalt limitation is equivalent to limiting source wide PM emissions to 95.1 tons per year.

Compliance with the limitations will make the requirements of 326 IAC 2-7, 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable to this source.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following:

- (a) Visible emissions shall not exceed an average of thirty percent (30%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4, and
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

This portable source will not locate in the severe nonattainment areas, specifically Lake and Porter Counties.

State Rule Applicability - Individual Facilities

326 IAC 6-1-2 (Particulate Emission Limitations)

This 225 ton per hour portable asphalt batch plant existed prior to June 11, 1973. Therefore, the source is subject to 326 IAC 6-1-2(c)(1)(A). Pursuant to this rule, the particulate matter (PM) content from affected facilities at the asphalt batch plant shall be limited to 0.1 grain per dry standard cubic foot (equivalent to 32.6 pounds per hour and 142.7 tons per year). However, these rates would exceed the 326 IAC 2-3 (Emission Offset) allowable of 99 tons per year and 22.6 pounds per hour. Therefore, pursuant to 326 IAC 2-3, the allowable PM emission rate is truncated to 99 tons per year and 22.6 pounds per hour. The affected facilities at this source, specifically the aggregate drying/mixing and conveying/handling operations, will comply with this requirement by utilizing a baghouse type dust collection system for controlling PM emissions at all times of batch plant operations, and by limiting hot mix asphalt production to 598,418 tons per 12-month period, rolled on a monthly basis (see Appendix A for supporting calculations).

326 IAC 6-3 (Process Operations)

The 225 ton per hour portable asphalt batch plant is subject to 326 IAC 6-3-2 (Particulate Emission Limitations). Pursuant to this rule, PM emissions from aggregate drying/mixing and conveying/handling shall not exceed 59.8 pounds per hour (equivalent to 261.9 tons per year). However, this rate would exceed the 326 IAC 2-3 and truncated 326 IAC 6-1-2 allowable rate of 99 tons per year and 22.6 pounds per hour. Therefore, pursuant to 326 IAC 2-3, the allowable PM emission rate is truncated to 99 tons per year and 22.6 pounds per hour. The source will comply with the requirements under 326 IAC 6-3-2 by utilizing a baghouse type dust collection system at all times of batch plant operations, and by limiting hot mix asphalt production to 598,418 tons per 12-month period, rolled on a monthly basis (see Appendix A for supporting calculations).

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4, fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

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

This source is subject to 326 IAC 6-5 for fugitive particulate matter emissions. Pursuant to 326 IAC 6-5, a fugitive dust control plan must be submitted, reviewed and approved. The fugitive dust control plan submitted on December 13, 1996 for this source includes watering the following fugitive emission activities on an as needed basis:

- (a) Paved roads and parking lots due to vehicular traffic;
- (b) Aggregate stockpile operations; and
- (c) Outdoor aggregate conveying and handling.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

This rule requires all facilities with a potential to emit twenty-five (25) tons per year or ten (10) pounds per hour of sulfur dioxide (SO₂) to comply with the emission limitations and test compliance methods stated in the rule. The SO₂ emissions from the 86 million Btu/hr dryer burner, when back-up No. 2 diesel fuel is used, shall be limited to 0.5 pounds per million Btu heat input. This equates to a diesel fuel oil sulfur content limit of 0.5%. Therefore, the sulfur content of the diesel fuel must be less than or equal to 0.5% in order to comply with this rule (See Appendix A for detailed calculations). The source will comply with this rule by using No. 2 diesel oil with a sulfur content of 0.5% or less.

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 Management upon request records of sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates for the combustion unit on a calendar-month average. The source will comply with this reporting requirement.

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

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), the use of cutback asphalt or asphalt emulsion shall not contain more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

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

The source will limit the production of stockpile mix to 209,575 tons per year (equivalent to an asphalt emulsion usage of 4,526.8 tons per year), using asphalt emulsion with a maximum distillate oil content of 7% or less.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties)

This rule applies to stationary sources located in Lake, Porter, Clark or Floyd Counties that emit or have the potential to emit VOCs at levels equal to or greater than 25 tons per year in Lake and Porter Counties and 100 tons per year in Clark and Floyd Counties. This source is not subject to the requirements of 326 IAC 8-7 since total potential VOC emissions from all affected facilities are limited below 100 tons per year, and the source is portable and it will not locate in Lake or Porter Counties.

326 IAC 8-9-1 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1, on and after October 1, 1995 stationary vessels used to store volatile organic liquids (VOL) must comply with the requirement of the rule if located in Clark, Floyd, Lake or Porter Counties. Stationary vessels with capacities less than 39,000 gallons are only subject to the reporting and record keeping requirements of the rule. Stationary storage vessels subject to any provision of 40 CFR Part 60.110b, New Source Performance Standard for Volatile Organic Liquid Storage, are exempt from this rule.

This rule is applicable to the 17,500 gallon and the 10,000 gallon vessels used to respectively store liquid asphalt and No. 2 diesel fuel oil, since the source is located in Clark County. This source is only subject to the record keeping and reporting requirements of Sections 6(a) and 6(b) of the rule since each storage vessel is less than 39,000 gallons capacity. The source has satisfied the requirements of Section 6(b) for the 17,500 gallon tank through its submission of vessel information in the FESOP application, and it shall maintain such information for the life of the vessel. Therefore, the requirements of 6(a) are also satisfied for this facility. Upon its construction, the 10,000 gallon No.2 diesel fuel storage vessel shall comply with the record keeping and reporting requirements of Sections 6(a) and 6(b).

326 IAC 8-1-6 (Volatile Organic Compound General Reduction Requirements)

This rule is not applicable to this source since no new facility has been constructed as of January 1, 1980 with potential VOC emissions of 25 tons per year or more.

No other rules pursuant to 326 IAC 8 apply to this source.

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, OAM, 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 permit Section D 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 permit Section D. 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:

1. The combustion of No. 2 diesel fuel oil in the aggregate dryer burner has applicable compliance monitoring conditions as specified below:
 - a) The consumption of No. 2 diesel oil burned, based on a maximum sulfur content of 0.5% in the oil, must be limited to 2.493 million gallons per 12-month period, rolled on a consecutive monthly basis to ensure compliance with 326 IAC 2-8 (FESOP).
 - b) Quarterly reports shall be submitted to OAM Compliance Section. These reports shall include the No. 2 diesel fuel oil usage each year, rolled on a monthly basis, and the sulfur content and heat content of the fuel oil.

These monitoring conditions are necessary because sulfur dioxide (SO₂) emissions from the combustion of No. 2 diesel fuel oil must be limited such that source wide (SO₂) emissions are below the Title V major source level of 100 tons per year, the sulfur content of the fuel must comply with 326 IAC 7-1.1, and the source complies with the FESOP limits established in 326 IAC 2-8.

2. The aggregate mixing and drying, conveying, screening, transfer and storage pile operations, and the paved road operations, have applicable compliance monitoring conditions as specified below:
 - a) Test for particulate matter emissions from the rotary dryer baghouse exhaust stack (SV1). Testing shall be performed in accordance to 326 IAC 3-2.1 using methods acceptable to the Commissioner. The stack test shall be performed during the period within 180 days after issuance of the FESOP.
 - b) The production of hot mix asphalt:
 - (1) must be limited to 598,418 tons per 12-month period, rolled on a consecutive monthly basis to ensure compliance with 326 IAC 2-3 (Emission Offset).

- (2) must be recorded monthly and quarterly reports shall be submitted to OAM Compliance Section. These reports shall include the total amount of hot mix asphalt produced each 12-month period, rolled on a monthly basis.
- c) The total static pressure drop across the rotary dryer baghouse must be measured and recorded daily when in operation. The pressure drop for the unit shall be maintained within the range of 4 and 8 inches of water. If the pressure drop is outside this range, corrective action shall be taken in accordance with the Preventive Maintenance Plan.
- d) Daily visible emissions observations of the aggregate conveying, transfer, and storage pile activity; paved roads; and rotary dryer stack exhaust shall be performed by a trained employee. A trained employee will record whether emissions are normal or abnormal. 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. 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. 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. The Preventive Maintenance Plan shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed and, if a reading is abnormal, corrective action shall be taken in accordance with the Plan.

These monitoring conditions are necessary because the aggregate mixing and drying process must operate properly to ensure compliance with 326 IAC 2-3 (Emission Offset), 326 IAC 6-1-2 (Particulate Emission Limitations), 326 IAC 6-3 (Process Operations), and 326 IAC 2-8 (FESOP). Additionally, fugitive dust emissions must comply with 326 IAC 6-4 and 326 IAC 6-5.

- 3. The production of stockpile mix has applicable compliance monitoring conditions as specified below:
 - a) The usage of asphalt emulsion must be limited to 4,526.8 tons per 12-month period, rolled on a consecutive monthly basis, based on a maximum six percent (6%) of asphalt emulsion in total stockpile mix produced with a maximum distillate oil content of seven percent (7%) in asphalt emulsion.
 - b) Quarterly reports shall be submitted to OAM Compliance Section. These reports shall include the amount of asphalt emulsion used per year, rolled on a monthly basis.

These monitoring conditions are necessary because volatile organic compound (VOC) emissions from the production of stockpile mix must be limited such that source wide VOC emissions are below the Title V major source level of 100 tons per year, and the source complies with 326 IAC 8-5-2 (Asphalt Paving Rule) and the FESOP limits established in 326 IAC 2-8-4.

4. The 10,000 gallon vessel storing No. 2 diesel fuel oil has applicable compliance monitoring conditions as specified below:

Submission of a report to the OAM upon the vessel's installation which will contain the following information:

- a) The vessel identification number.
- b) The vessel dimensions.
- c) The vessel capacity.
- d) A description of the emission control equipment, or a schedule for its installation, if the vessel is described in 326 IAC 8-9-4(a) or 8-9-4(b).

A record of the information reported to the OAM shall be maintained by the Permittee for the life of the vessel. These monitoring conditions are necessary to ensure compliance with 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) FESOP Application Form GSD-08.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.
- (b) See attached calculations for detailed air toxic calculations (see Appendix A, six pages).

Conclusion

The operation of this portable hot mix asphalt batch plant will be subject to the conditions of the attached proposed **FESOP No. F019-7695-03245**.

Table A

Stack/Vent ID: SV1				
Stack/Vent Dimensions: Ht: 45' Dia: 5' Temp: 275EF Flow: 52,900 acfm				
Emission Unit: Asphalt Mixer and Dryer				
Date of Construction: 1971				
Alternative Scenario: #2 Diesel Oil as Alternative Fuel				
Pollution Control Equipment: Baghouse				
General Description of Requirement:	limit total diesel fuel usage to dryer burner	limit total asphalt produced	sulfur content of fuel oil burned	record static pressure drop across baghouse and visibility observations
Numerical Emission Limit:	usage of diesel oil to 2.493 million gal/yr such that SO ₂ emissions are limited to 91.1 ton/yr	production of asphalt at 598,418 tons/yr such that PM emissions limited to 95.1 ton/yr	0.5% sulfur or less for diesel oil	source PM and PM-10 limited to 95.1 and 24.3 tons per year, respectively
Regulation/Citation:	326 IAC 2-8-4	326 IAC 2-3	326 IAC 7-1.1	326 IAC 6-1-2, 326 IAC 6-3-2 & 326 IAC 2-8-4
Compliance Demonstration:	record keeping and reporting	record keeping and reporting	testing and reporting	monitoring
PERFORMANCE TESTING				
Parameter/Pollutant to be Tested:	N/A	N/A	sulfur content	PM and PM10
Testing Method/Analysis:			40 CFR Part 60, Appendix A, Method 19	method accepted by the commissioner
Testing Frequency/Schedule:			each fuel delivery	between 36 to 42 months after FESOP issuance, then once every 5 years
Submittal of Test Results:			quarterly	45 days after testing
COMPLIANCE MONITORING				
Monitoring Description:	record diesel fuel usage		N/A	maintain pressure drop within 4 and 8 inches of water; visibility observations
Monitoring Method:	purchase orders/invoices		N/A	pressure gauge; by trained employee
Monitoring Regulation/Citation:	326 IAC 2-8-4		N/A	326 IAC 6-1-2, 326 IAC 6-3-2 & 326 IAC 2-8-4
Monitoring Frequency:	monthly		N/A	daily
RECORD KEEPING				
Parameter/Pollutant to be Recorded:	#2 diesel oil burned	hot mix asphalt produced	fuel sulfur content	pressure drop; visible emissions
Recording Frequency:	monthly	monthly	each fuel delivery	daily
Submittal Schedule of Reports:	quarterly	quarterly	quarterly	upon OAM request
REPORTING REQUIREMENTS				
Information in Report:	fuel usage	asphalt production	sulfur content of diesel oil burned	N/A
Reporting Frequency/Submittal:	quarterly	quarterly	quarterly	N/A
Additional Comments:	none	none	none	(1)

(1) If the pressure drop falls outside range or visible emissions observed, maintenance procedures will be initiated.

Table B

Stack/Vent ID: N/A			
Stack/Vent Dimensions: N/A			
Emission Unit: Stockpile Mix Production			
Date of Construction: N/A			
Alternative Scenario: N/A			
Pollution Control Equipment: none			
General Description of Requirement:	limit stockpile mix production (through limited asphalt emulsion usage)		
Numerical Emission Limit:	stockpile mix production limited to 209,575 ton/yr (equal to using 4,527 ton/yr of asphalt emulsion) such that total source VOC emissions are limited to 91.8 tons per year		
Regulation/Citation:	326 IAC 2-8-4		
Compliance Demonstration:	record keeping and reporting		
PERFORMANCE TESTING N/A			
Parameter/Pollutant to be Tested:			
Testing Method/Analysis:			
Testing Frequency/Schedule:			
Submittal of Test Results:			
COMPLIANCE MONITORING N/A			
Monitoring Description:			
Monitoring Method:			
Monitoring Regulation/Citation:			
Monitoring Frequency:			
RECORD KEEPING			
Parameter/Pollutant to be Recorded:	asphalt emulsion usage (tons) & distillate oil content		
Recording Frequency:	monthly		
Submittal Schedule of Reports:	quarterly		
REPORTING REQUIREMENTS			
Information in Report:	tons of asphalt emulsion used		
Reporting Frequency/Submittal:	quarterly		
Additional Comments:	none		

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

**Addendum to the
Technical Support Document for Federally Enforceable State Operating
Permit (FESOP)**

Source Name: Lucas Brothers Paving, Inc. (changed from The Kentucky Stone Co.)
Initial Source Location: Sames Road, Clarksville, Indiana 47131
Initial County: Clark
Operation Permit No.: F019-7695-03307
SIC Code: 2951
Permit Reviewer: Michael Hirtler/EVP

On September 19, 1997, the Office of Air Management (OAM) had a notice published in the Clark County Evening News, Jeffersonville, Indiana, stating that The Kentucky Stone Company had applied for a Federally Enforceable State Operating Permit (FESOP) for a portable hot mix asphalt batch plant with control. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAM has decided to make the following changes to the FESOP:

- 1) The portable hot mix asphalt batch plant has been operating at its current location since at least as early as 1971. The plant is currently owned by Lucas Brothers Paving, Inc., but the operators of the plant, The Kentucky Stone Company, currently lease the equipment and operate the plant. Because of this arrangement, The Kentucky Stone Company accepted the responsibility for filing the FESOP application. Since they were the operators of the plant, the draft FESOP (and other supporting documents) listed The Kentucky Stone Company as the source and company name. At the end of the public comment period, however, The Kentucky Stone Company notified the OAM of its intention in 1998 to end its lease agreement with Lucas Brothers Paving, Inc, and The Kentucky Stone Company requested that the FESOP and all supporting materials be issued to Lucas Brother Paving, Inc. Consequently, the draft FESOP has been revised to eliminate reference to The Kentucky Stone Company, replacing such reference with Lucas Brothers Paving, Inc. Also, Condition A.1 is revised as follows:

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

The Permittee **owns and** operates a portable hot mix asphalt batch plant ~~owned by Lucas Brothers, Inc.~~

Responsible Official: ~~John Lawson~~ **George Lucas Jr.**
Initial Source Address: Sames Road, Clarksville, Indiana 47131
Mailing Address: ~~209 Old Harrods Creek Road, P.O. Box 436329, Louisville, Kentucky 40253-6329~~ **885 North Gardener Street, Scottsburg, Indiana 47170**
SIC Code: 2951
Initial County Location: Clark
County Status: Nonattainment for particulate matter and volatile organic compound; attainment for all other criteria pollutants
Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor Source under PSD and Emission Offset Rules

The original TSD for the FESOP will not be revised to change the name of the company because the applicable conditions remain unaffected by the company name change, and this document serves as an amendment to the original TSD providing notification on the company name change as described above.

For permit tracking purposes, plant ID 019-03307 originally provided to The Kentucky Stone Company will be transferred to Lucas Brothers Paving, Inc.

- 2) Condition D.1.1 limits particulate matter (PM) emitted from the 225 ton per hour (rated) aggregate mixing and drying and batch tower operations to 22.6 pounds per hour (lb/hr) and 0.1 grains per dry standard cubic foot (gr/dscf). The 22.6 lb/hr emission limit was calculated pursuant to 326 IAC 6-3 (Process Operations) and it was "truncated" such that the source's annual PM emission rate would be less than the major source threshold of 100 tons per year. Therefore, the requirements of 326 IAC 2-3, Emission Offset, were determined to not apply to the source.

Truncation is applicable only to the annual emission limit. Therefore, Condition D.1.1 is being revised to reflect the allowable limit as determined pursuant to 326 IAC 6-3 without truncation. For a facility with a process weight rate of 225 tons per hour, the emission limit is computed and revised as follows:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{allowable rate of PM emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour (225 tons/hr)}$$

$$E = 59.8 \text{ pounds per hour}$$

However, the affected facilities are concurrently required to limit particulate matter emissions to 0.1 gr/dscf pursuant to 326 IAC 6-1-2(c)(1)(A). Such a limitation is equivalent to 31.0 lb/hr, which is more restrictive than the 59.8 lb/hr limit pursuant to 326 IAC 6-3. Therefore, the facilities shall be required to limit their particulate matter emissions to 0.1 gr/dscf, and such a limit will also satisfy the particulate matter emission limitation of 326 IAC 6-3. Compliance with this emission limit is shown on revised page 6 of 6 of Appendix A, Emission Calculations.

The source's annual PM emission limit remains truncated at 99 tons per year and the source will comply by limiting its total asphalt production as required in Condition D.1.2. Therefore, the requirements of 326 IAC 2-3, Emission Offset, will not apply to the source. Condition D.1.1 is revised as follows:

D.1.1 Particulate Matter (PM) Emissions [326 IAC 6-1-2] [326 IAC 6-3]

Pursuant to 326 IAC 6-1-2(c)(1)(A) (Particulate Emission Limitations: Asphalt Concrete Plants) ~~and 326 IAC 6-3 (Process Operations)~~, the particulate matter emissions from the aggregate mixing and drying and batch tower operations shall not exceed ~~22.6 pounds per hour and 0.1 grain per dry standard cubic foot (gr/dscf)~~. **This limitation is equivalent to particulate matter emissions of 31.0 pounds per hour.** This limitation ~~on particulate matter emissions will also render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable~~ **shall also satisfy the particulate matter emissions limitation of 326 IAC 6-3 (Process Operations).**

- 2) The asphalt production limit of Condition D.1.2 will be revised to be consistent with the particulate matter emission limit computed in association with revised Condition D.1.1 as follows:

D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The production of hot mix asphalt shall be limited as follows:

- (a) Total asphalt produced shall be limited to ~~598,418~~ **626,358** tons per twelve (12) month period, rolled on a consecutive monthly basis. This production limit is equivalent to **particulate matter emissions of 43.1 tons per 12-month period for the facility** and ~~source wide PM emissions of 95.1 tons per 12-month period~~ **for the source**. The total amount of asphalt produced each month shall not exceed the difference between the annual limit minus the sum of actual product from the previous eleven (11) months.
- (b) During the first twelve (12) months of operation under this permit, the asphalt production shall be limited such that the total input divided by the accumulated months of operation shall not exceed ~~49,868~~ **52,196.5** tons per month.
- (c) Compliance with this limit makes 326 IAC 2-2 not applicable. Compliance with this limit makes 326 IAC 2-3 (Emission Offset) not applicable.

This condition will supersede Operation Condition 4 of Construction Permit CP019-2492-03307, issued on April 25, 1996.

- 3) Condition D.1.3, Particulate Matter (PM-10) Emissions, will not be revised because the stated emission limits are not affected by the revised particulate matter emission limitations cited above. The source allowable PM-10 emission limit continues to be 99 tons per year, and the affected facilities' allowable PM-10 emission limit continues to be 18.4 pounds per hour of PM-10, such that the Part 70 rules (326 IAC 2-7) do not apply to the source.
- 4) The quarterly report form for hot mix asphalt production will be updated to reflect the revised production limits in Condition D.1.2. A copy of the revised reporting form is attached.
- 5) The quarterly report form for No. 2 diesel oil usage will be corrected such that the units of the oil usage are in gallons and not cubic feet. A copy of the revised reporting form is attached.

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

FESOP Quarterly Report

Source Name: ~~The Kentucky Stone Company~~ **Lucas Brothers Paving, Inc.**
 Initial Source Address: Sames Road, Clarksville, Indiana 47131
 FESOP No.: F019-7695-03307
 Facility: Hot mix asphalt
 Parameter: particulate matter (PM)
 Usage Limit: (a) Total asphalt produced shall be limited to ~~598,418~~ **626,358** tons per twelve (12) month period, rolled on a consecutive monthly basis. This production limit is equivalent to source wide PM emissions of 95.1 tons per 12-month period. The total amount of asphalt produced each month shall not exceed the difference between the annual limit minus the sum of actual product from the previous eleven (11) months.
 (b) During the first twelve (12) months of operation under this permit, the asphalt production shall be limited such that the total input divided by the accumulated months of operation shall not exceed ~~49,868~~ **52,196.5** tons per month.

Year: _____

Month	Hot Mix Asphalt Produced This Month (Tons)	Hot Mix Asphalt Produced Last 12 Months (Tons)

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

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

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

FESOP Quarterly Report

Source Name: ~~The Kentucky Stone Company~~ **Lucas Brothers Paving, Inc.**
 Source Address: Sames Road, Clarksville, Indiana 47131
 FESOP No.: F019-7695-03307
 Facility: 86 million British thermal units burner for the aggregate dryer
 Parameter: sulfur dioxide (SO₂)
 Limits: 0.5 pounds SO₂ per MMBTU heat input per boiler and fuel oil sulfur content of 0.5% (weight)
 Usage Limits: (a) Total input of No. 2 diesel fuel oil shall be limited to 2.493 million gallons (mmgal) per twelve (12) month period, rolled on a consecutive monthly basis, the total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months; and
 (b) During the first twelve (12) months of operation under this permit, the input of No. 2 diesel fuel oil shall be limited such that the total input divided by the accumulated months of operation shall not exceed 0.208 million gallons (mgal) per month.

Year: _____

Month	Sulfur Content of #2 Oil (weight %)	Heat Content of #2 Oil (Btu/gallon)	SO ₂ Emissions (lb/MMBtu)	# 2 Oil Usage (mmgal/month)	Total Fuel Oil Usage last 12 months (mmgal)

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
 Deviation has been reported on: _____

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

Company Name : Lucas Brothers Paving, Inc.
Initial Plant Location : Sames Road, Clarksville, IN 47131
County : Clark
Date : June 30, 1997
Permit Reviewer : Michael Hirtler

**** hot oil heater ****

The following calculations determine the amount of emissions created by the combustion of #2 diesel fuel oil @ 0.5 % sulfur, from hot oil heater, based on 8760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-2, 1.3-4, and 1.3-8.

Pollutant: $\frac{2 \text{ MMBtu/hr} * 8760 \text{ hr/yr}}{139,000 \text{ Btu/gal} * 2000 \text{ lb/ton}}$ * Ef (lb/1000 gal) = (ton/yr)

P M:	2.00 lb/1000 gal =	0.13 ton/yr
P M-10:	1.24 lb/1000 gal =	0.08 ton/yr
S O 2:	69.58 lb/1000 gal =	4.39 ton/yr
N O x:	20.00 lb/1000 gal =	1.26 ton/yr
V O C:	0.34 lb/1000 gal =	0.02 ton/yr
C O:	5.00 lb/1000 gal =	0.32 ton/yr

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.

Pollutant: $\frac{2 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{1000 \text{ Btu/cf} * 2,000 \text{ lb/ton}}$ * Ef (lb/MMcf) = (ton/yr)

P M:	12.0 lb/MMcf =	0.11 ton/yr
P M-10:	12.0 lb/MMcf =	0.11 ton/yr
S O 2:	0.6 lb/MMcf =	0.01 ton/yr
N O x:	100.0 lb/MMcf =	0.88 ton/yr
V O C:	5.3 lb/MMcf =	0.05 ton/yr
C O:	21.0 lb/MMcf =	0.18 ton/yr

The maximum potential emissions from the hot oil heater due to fuel combustion are the following:

Pollutant:		Worst Case Fuel
P M:	0.13 ton/yr	No. 2 Fuel Oil
P M-10:	0.11 ton/yr	Natural Gas
S O 2:	4.39 ton/yr	No. 2 Fuel Oil
N O x:	1.26 ton/yr	No. 2 Fuel Oil
V O C:	0.05 ton/yr	Natural Gas
C O:	0.32 ton/yr	No. 2 Fuel Oil

**** asphalt heating ****

The following calculations determine the amount of emissions created by the combustion of #2 diesel fuel oil @ 0.5 % sulfur, from asphalt heating, based on 8760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-2, 1.3-4, and 1.3-7.

Pollutant:	$\frac{86 \text{ MMBtu/hr} * 8760 \text{ hr/yr}}{139,000 \text{ Btu/gal} * 2000 \text{ lb/ton}}$	* Ef (lb/1000 gal) = (ton/yr)	
P M:	2.00 lb/1000 gal =		5.42 ton/yr
P M-10:	1.00 lb/1000 gal =		2.71 ton/yr
S O 2:	69.58 lb/1000 gal =		188.56 ton/yr
N O x:	20.00 lb/1000 gal =		54.20 ton/yr
V O C:	0.20 lb/1000 gal =		0.54 ton/yr
C O:	5.00 lb/1000 gal =		13.55 ton/yr

The following calculations determine the amount of emissions created by natural gas combustion, from the batch-mix 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, 1.4-2, and 1.4-3.

Pollutant:	$\frac{86 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{1000 \text{ Btu/cf} * 2,000 \text{ lb/ton}}$	* Ef (lb/MMcf) = (ton/yr)	
P M:	13.70 lb/MMcf =		5.16 ton/yr
P M-10:	13.70 lb/MMcf =		5.16 ton/yr
S O 2:	0.6 lb/MMcf =		0.23 ton/yr
N O x:	140.0 lb/MMcf =		52.74 ton/yr
V O C:	2.8 lb/MMcf =		1.05 ton/yr
C O:	35.0 lb/MMcf =		13.18 ton/yr

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

Pollutant:		Worst Case Fuel
P M:	5.42 ton/yr	No. 2 Fuel Oil
P M-10:	5.16 ton/yr	Natural Gas
S O 2:	188.56 ton/yr	No. 2 Fuel Oil
N O x:	54.20 ton/yr	No. 2 Fuel Oil
V O C:	1.05 ton/yr	Natural Gas
C O:	13.55 ton/yr	No. 2 Fuel Oil

**** aggregate drying: batch-mix plant ****

The following calculations determine the amount of emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-2 for a batch mix dryer capable of combusting fuel oil or natural gas.

PM:	32 lb/ton x	225	ton/hr x	8760 hr/yr =	31536 ton/yr
		2000	lb/ton		
PM-10:	4.5 lb/ton x	225	ton/hr x	8760 hr/yr =	4434.75 ton/yr
		2000	lb/ton		

**** conveying / handling ****

The following calculations determine the amount of emissions created by wet (>1.5% moisture) material conveying & handling, based on 8,760 hours of use and AP-42, Ch 11.19.2. Emission factors for different operations are as follows:

The following calculations determine the amount of emissions from conveying and handling:

PM10 Emissions Per Operation:
$$\frac{225 \text{ ton/hr} \times 8760 \text{ hr/yr} \times \text{Ef (lb/ton of material)} \times \text{No. of similar operations}}{2000 \text{ lb/ton}} = \text{tons/yr}$$

Operation				
Truck Loading:	2 operation(s) x	1.0E-04 lb/ton/operation(s) =		0.20 ton/yr
Conveyor Transfers:	1 operation(s) x	4.8E-05 lb/ton/operation(s) =		0.05 ton/yr
Screening:	1 operation(s) x	8.4E-04 lb/ton/operation(s) =		0.83 ton/yr
Batch Drops:	2 operation(s) x	1.0E-04 lb/ton/operation(s) =		0.20 ton/yr
Total PM10 Emissions:				1.27 ton/yr

* PM emission factors are estimated by multiplying 2.1 to PM10 emission factors, based on USEPA AP-42, 5th Edition, Section 11.19-2, Table 11.19.2-2, footnote C.

Total PM Emissions: 2.67 ton/yr

**** unpaved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads (see Note, next page), based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 13.2.2.2.

I. Triaxle Dump Trucks

12 trip/hr x
0.11 mile/trip x
2 (round trip) x
8,760 hr/yr = 23126.4 miles per year

$$\text{Ef} = k \cdot 5.9 \cdot (s/12)^2 \cdot (S/30)^2 \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365)$$

= 3.02 lb/mile
where k = 0.8 (particle size multiplier)
s = 4.8 % silt content of unpaved roads
p = 125 days of rain greater than or equal to 0.01 inches
S = 10 miles/hr vehicle speed
W = 21 tons average vehicle weight
w = 14 wheels

PM:	3.02 lb/mi x	23126.4 mi/yr =	34.95 tons/yr
		2000 lb/ton	
PM-10:	35% of PM =		12.23 ton/yr

II. Front End Loaders

28 trip/hr x
0.06 mile/trip x
2 (round trip) x
8,760 hr/yr = 29433.6 miles per year

$$\text{Ef} = k \cdot 5.9 \cdot (s/12)^2 \cdot (S/30)^2 \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365)$$

= 2.30 lb/mile
where k = 0.8 (particle size multiplier)
s = 4.8 % silt content of unpaved roads
p = 125 days of rain greater than or equal to 0.01 inches
S = 10 miles/hr vehicle speed
W = 35 tons average vehicle weight
w = 4 wheels

PM:	2.30 lb/mi x	29433.6 mi/yr =	33.86 tons/yr
		2000 lb/ton	
PM-10:	35% of PM =		11.85 ton/yr

**** storage ****

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

Material	Silt Content (wt %)	Pile Size (acres)	Storage Capacity (tons)	PM Emissions tons/yr	PM-10 Emissions tons/yr
Sand	1.1	1.40	20,000	0.33	0.11
Limestone	1.2	0.60	40,000	0.15	0.05
Total				0.48	0.17

Sample Calculation:

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

$$= 1.27 \text{ lb/acre/day}$$

where s = 1.1 % 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

$$E_p (\text{storage}) = E_f * (365 \text{ day/yr}) * (\text{pile size in acres}) / (2,000 \text{ lb/ton})$$

PM = 0.48 tons/yr P M-10: 35% of PM = 0.17 tons/yr

****stockpile mix VOC emissions ****

The following calculations determine the amount of VOC emissions caused by the use of asphalt emulsion (AE) for stockpile mix. The VOC emission rate is computed using a 7.1 pound AE per ton of batch (at 6% emulsion) factor stated in the application and USEPA's AP-42, 5th Edition, Section 4.5, assuming distillate oil in the AE has similar characteristics to slow cure cutback asphalt.

When using AE for stockpile mix:

- 6% = volume % of AE in asphalt batch (FESOP application Form PI-04)
- 2.5 = kg/liter (average density of limestone, assumed as the average density of the asphalt produced)
- 0.9 = kg/liter (typical density for slow cure cutback asphalt--see USEPA AP-42 5th Ed., Section 4.5)
- 225 = tons asphalt / hour (maximum production capacity)
- 7% = volume % (assumed equivalent to weight %) allowed of distillate oil in emulsion per 326 IAC 8-5-2
- 25% = weight % of distillate oil assumed to vaporize (assumed as slow cure cutback asphalt, see AP-42, Section 4.5)

Amount of stockpile mix produced: 225.00 tons / hr

Weight percent of AE in stockpile mix:
 (225.0 tons / hr / 2.5 kg / liter) * 6% AE * 0.9 kg / liter = 4.86 tons AE / hr

Amount of VOC (as Distillate Oil) Emitted from Stockpile:
 4.88 tons AE / hr * 7% dist. oil * 25% oil emitted = 0.09 tons VOC / hr

Potential VOC Emissions = (tons VOC / hr) * 8,760 hr / yr = 745.04 tons VOC / yr

**** PM & PM-10 emissions after controls ****

hot oil heater:					
P M:	0.13 ton/yr x	100%	emitted after controls =	0.13 ton/yr	(process)
P M-10:	0.11 ton/yr x	100%	emitted after controls =	0.11 ton/yr	(process)
aggregate mixing and drying:					
P M:	31541.42 ton/yr x	0.4%	emitted after controls =	135.63 ton/yr	(process)
P M-10:	4439.91 ton/yr x	0.4%	emitted after controls =	19.09 ton/yr	(process)
conveying/handling:					
P M:	2.67 ton/yr x	0.4%	emitted after controls =	0.01 ton/yr	(process)
P M-10:	1.27 ton/yr x	0.4%	emitted after controls =	0.01 ton/yr	(process)
unpaved roads: (see note below)					
P M:	68.82 ton/yr x	75%	emitted after controls =	51.61 ton/yr	(fugitive)
P M-10:	24.09 ton/yr x	75%	emitted after controls =	18.06 ton/yr	(fugitive)
storage:					
P M:	0.48 ton/yr x	50%	emitted after controls =	0.24 ton/yr	(fugitive)
P M-10:	0.17 ton/yr x	50%	emitted after controls =	0.08 ton/yr	(fugitive)

Note: Vehicle traffic actually occurs on paved roads; however, the USEPA AP-42 PM and PM10 emission factor equations for paved roads (Section 13.2.1) were not used since the associated emissions were 7 times higher than that shown above. Instead, the unpaved emission factor equations were utilized along with appropriate efficiencies for particulate control. This included a 50% control efficiency for the application of water as needed through the use of a high pressure hose, plus an additional 25% efficiency was applied for paving of unpaved roads. Therefore, the overall efficiency assumed was 75%.

Hazardous Air Pollutants (HAP's)

** asphalt heating combustion**

The following calculations determine the amount of HAP emissions created by the combustion of #2 fuel oil, from asphalt heating, based on 8760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-11

Hazardous Air Pollutants (HAPs): 86 MMBtu/hr * 8760 hr/yr * Ef (lb/10¹² Btu) = (ton/yr)
2000 lb/ton

		Potential to Emit	Limited Emissions
Arsenic	4.2 lb/10 ¹² Btu =	1.58E-03 ton/yr	7.11E-04 ton/yr
Beryllium:	2.5 lb/10 ¹² Btu =	9.42E-04 ton/yr	4.23E-04 ton/yr
Cadmium:	11 lb/10 ¹² Btu =	4.14E-03 ton/yr	1.86E-03 ton/yr
Chromium:	67 lb/10 ¹² Btu =	2.52E-02 ton/yr	1.13E-02 ton/yr
Lead:	8.9 lb/10 ¹² Btu =	3.35E-03 ton/yr	1.51E-03 ton/yr
Manganese:	14 lb/10 ¹² Btu =	5.27E-03 ton/yr	2.37E-03 ton/yr
Mercury:	3 lb/10 ¹² Btu =	1.13E-03 ton/yr	5.08E-04 ton/yr
Nickel:	170 lb/10 ¹² Btu =	6.40E-02 ton/yr	2.88E-02 ton/yr
	Total HAPs =	1.06E-01 ton/yr	4.75E-02 ton/yr

** aggregate drying: batch-mix plant **

The following calculations determine the amount of HAP emissions created by aggregate drying before & after controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-9 for a batch mix dryer which can be fired with either fuel oil or natural gas. The HAP emission factors represent the worst case emissions from either fuel type.

Pollutant: Ef lb/ton x 225 ton/hr x 8760 hr/yr
2000 lb/ton

Hazardous Air Pollutants (HAPs):		Potential To Emit	Limited Emissions
Acetaldehyde:	6.40E-04 lb/ton =	6.31E-01 ton/yr	6.31E-01 ton/yr
Benzene:	3.50E-04 lb/ton =	3.45E-01 ton/yr	3.45E-01 ton/yr
Ethylbenzene:	3.30E-03 lb/ton =	3.25E+00 ton/yr	3.25E+00 ton/yr
*Formaldehyde:	8.60E-04 lb/ton =	8.48E-01 ton/yr	8.48E-01 ton/yr
Quinone:	2.70E-04 lb/ton =	2.66E-01 ton/yr	2.66E-01 ton/yr
Toluene:	1.80E-03 lb/ton =	1.77E+00 ton/yr	1.77E+00 ton/yr
**Total Polycyclic Organic Matter (POM):	1.270E-04 lb/ton =	1.25E-01 ton/yr	1.25E-01 ton/yr
Xylene:	4.30E-03 lb/ton =	4.24E+00 ton/yr	4.24E+00 ton/yr
	Total HAPs =	1.15E+01 ton/yr	1.15E+01 ton/yr

* The emission factor for formaldehyde from fuel oil firing (0.0032 lb/ton) exceeds the formaldehyde emission factor from natural gas firing (0.00086 lb/ton). Consequently, the worst case emissions for formaldehyde are 2.24 ton/yr. However, since the VOC emissions from natural gas combustion exceed the VOC emissions from fuel oil firing, the natural gas emission factor was used to avoid overestimating total VOC emissions.

** total POM includes 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(b)fluoranthrene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene, and Pyrene.

**** source emissions summary ****

Pollutant	Uncontrolled Emissions (tons/yr)	Controlled/Limited Emissions (tons/yr)
PM (1)	31,613.51	95.09
PM10	4,465.54	24.33
SO2 (2)	192.94	91.12
NOx (3)	55.46	54.00
VOC (4) (5)	757.62	91.80
CO (3)	13.86	13.50
HAPs	11.58	11.53

(1) Controlled and limited PM emissions from aggregate mixing/drying and conveying/handling are 43.10 tons/yr (i.e., (99.0 ton/yr-51.98 from other controlled PM emitting activities) * 11/12). Asphalt production PM is limited as follows:

PM: 135.64 ton/yr x $\frac{683,300 \text{ Limited Thruput (ton/yr)} \times (11/12)}{1,971,000 \text{ Potential Throughput (tons/yr)}} = 43.10 \text{ ton/yr}$

The asphalt production limit of **626,358** tons per year (i.e., **683,300** ton/yr * 11/12) is equivalent to:
626,358 ton/yr * (1/12) = **52,196.5** ton asphalt/month

Compliance with this limitation will make the requirements of 326 IAC 2-3 (Emission Offset) not applicable to this source.

PM10 will be affected by the limitation in asphalt production in a fashion similar to PM:

PM10: 19.09 ton/yr x $\frac{683,300 \text{ Limited Thruput (ton/yr)} \times (11/12)}{1,971,000 \text{ Potential Throughput (tons/yr)}} = 6.07 \text{ ton/yr}$

(2) Limited SO2 emissions from asphalt heating are 86.73 tons/yr (i.e., (99.0 ton/yr -4.39 ton/yr from oil heater) * 11/12).

The maximum annual #2 oil usage is calculated as follows:

$$\frac{86.73 \text{ tons/yr} \times 8760 \text{ hr/yr} \times 86 \text{ mmBtu/hr}}{188.56 \text{ tons/yr} \times 0.139 \text{ mmBtu/gal}} = \frac{2.493 \times 10^6 \text{ gallons/yr}}{(2.077 \times 10^5 \text{ gallons/mon})}$$

(3) Controlled/limited NOx and CO emissions reflect unlimited natural gas firing rather than limited #2 fuel oil firing (see footnote 1) since unlimited natural gas usage will result in higher emissions for both pollutants versus limited #2 oil firing.

(4) VOC emissions includes HAPs emissions from asphalt batch mixer.

(5) Stockpile mix VOC emissions are limited as follows:

VOC: 745.04 ton/yr x $\frac{228,627 \text{ Limited Thruput (ton/yr)} \times (11/12)}{1,971,000 \text{ Potential Throughput (tons/yr)}} = 79.22 \text{ ton/yr}$

The stockpile mix production limit of **209,575** tons per year (i.e., **228,627** ton/yr * 11/12) is equivalent to:
209,575 ton/yr * (1/12) * 6% asphalt emulsion * 0.9 kg/liter / 2.5 kg/liter = **377.2** ton AE/mon or **4526.8** ton AE/yr

**** miscellaneous ****

Compliance with 326 IAC 6-1-2(c)(1)(A) PM Limit:

The following calculations determine compliance with the PM limit pursuant to 326 IAC 6-1-2(c)(1)(A), which limits stack emissions from affected equipment at asphalt plants to 0.10 grains/dscf:

$$\frac{135.64 \text{ ton/yr} \times 2000 \text{ lb/ton} \times 7000 \text{ gr/lb}}{525,600 \text{ min/yr} \times 36,000 \text{ cu ft/min}} = 0.10 \text{ gr/cu ft} \quad \text{(will comply)}$$

Allowable particulate emissions under 326 IAC 6-1-2(c)(1)(A) of 0.10 gr/dscf equate to: 30.97 lb / hour

Compliance with 326 IAC 6-3-2

Pursuant to 326 IAC 6-3-2, the PM emissions limit for processing 225 tons/hr hot mixed asphalt is calculated as:

$$E = 55.0 \times P^{0.11 - 40}$$

where: E is the emission limit in lb/hr; P is the material process rate in tons/hr

Therefore, allowable emission rate $E = 55.0 \times (225)^{0.11 - 40} = 59.79 \text{ lb/hr}$. However, 59.79 lb/hr exceeds the equivalent allowable of 30.9 lb/hr pursuant to 326 IAC 6-1-2(c)(1)(A). Therefore, the allowable limit is set at 0.10 gr/dscf and compliance with this limit shall satisfy the emission limit requirement of 326 IAC 6-3. Compliance with the allowable limit of 0.10 gr/dscf is shown above.

Compliance with 326 IAC 7-1.1-2

The following calculations determine the maximum sulfur content of #2 fuel oil allowed by 326 IAC 7-1.1-2:

$$\frac{0.5 \text{ lb/MMBtu} \times 139,000 \text{ Btu/gal}}{70 \text{ lb/1000 gal}} = \frac{70 \text{ lb/1000 gal}}{142 \text{ lb/1000 gal}} = 0.5 \%$$

Sulfur content must be less than or equal to 0.5 % to comply with 326 IAC 7-1.1-2.

Facility will comply with the rule by using fuel oil with 0.05% sulfur content.

Note:

The following exhaust gas flow rate (dscfm) was taken from Appendix A Emission Calculations for Construction Permit CP019-2492-03307 issued April 25, 1996:

SCFM = 36,000 (assumed as dry)