INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: January 20, 2006

RE: Mac Construction / 019-21746-05282

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 1/10/05

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NEW SOURCE CONSTRUCTION PERMIT AND FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

MAC Construction & Excavating, Inc. (Portable Source)

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses new source review requirements and is intended to fulfill the new source review procedures and permit revision requirements pursuant to 326 IAC 2-8-11.1, applicable to those conditions.

Operation Permit No.: F019-21746-05282	
Issued by: Original Signed By: Paul Dubenetzky, Assistant Commissioner Office of Air Quality	Issuance Date: January 20, 2006 Expiration Date: January 20, 2011

SECTION A SOURCE SUMMARY

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

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

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

Authorized individual:	President
Initial Source Address:	1415 Quarry Road, Jeffersonville, Indiana 47130
Mailing Address:	P.O. Box 6787, New Albany, Indiana 47151
General Source Phone:	(812) 670-0204
SIC Code:	2951
Initial Source Location Status:	Clark County Nonattainment for ozone under the 8-hour standard Nonattainment for PM2.5 Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD and Emission Offset Rules and Nonattainment NSR; Minor Source, Section 112 of the Clean Air Act

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

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

(a) One (1) drum mix asphalt plant, identified as Unit ID ES1, with a maximum rated throughput capacity of 400 tons per hour, equipped with one (1) 100 million British thermal units per hour (MMBtu/hr) fuel oil-fired burner, using either No. 4 fuel oil, No. 6 fuel oil, or waste oil, with particulate emissions controlled by one (1) baghouse, identified as CD-1, exhausting at one (1) stack (Stack ID: EP1);

(b) One (1) 30,000 gallon split fuel tank, consisting of one (1) 19,500 gallon storage reservoir, identified as Tank 1a, and one (1) 10,500 gallon storage reservoir, identified as Tank 1b, with both storage reservoirs separated by a permanent wall divider;

(c) One (1) 20,000 gallon liquid asphalt cement storage tank, identified as Tank 2; and

(d) One (1) 15,000 gallon liquid asphalt storage tank, identified as Tank 3.

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

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

(a) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight including:

(1) One (1) No. 2 distillate fuel oil-fired hot oil heater, rated at 1.2 MMBtu per hour; exhausting through stack EP2.

(b) VOC and HAP storage containers storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2(e)(2)]

(d) Structural steel and bridge fabrication activities using 80 tons or less of welding consumables.

(e) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

(f) Aggregate and RAP storage piles.

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

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

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

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

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

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

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, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5]

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

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

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

B.5 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)]

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

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

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

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

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

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

B.10 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

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

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

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

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

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

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

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

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

B.12 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

B.13 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, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

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

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

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

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

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

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

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

B.14 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 response steps or preventive measures taken shall be reported to:

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

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

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

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

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

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a 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)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

(1) That this permit contains a material mistake.

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

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

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

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

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

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

Request for renewal shall be submitted to:

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

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

(1) 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) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ 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, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

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

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

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

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

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

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

(d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

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

(a) The Permittee may make any change or changes at 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 2-8-11.1 has been obtained;

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

(4) The Permittee notifies the:

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

and

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

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

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

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

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

(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.19 Permit Revision Requirement [326 IAC 2-8-11.1]

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

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

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

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

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

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

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

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

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

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

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

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

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

B.23 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

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

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

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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

(a) Pursuant to 326 IAC 2-8:

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

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

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

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

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

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

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

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

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(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.6 Fugitive Dust Emissions [326 IAC 6-4]

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

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on September 7, 2005. The plan is included as Attachment A.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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

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

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

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

C.9 Performance Testing [326 IAC 3-6]

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

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

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

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

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

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

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

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

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

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

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

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

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

within 180 days from the date on which this source commences operation.

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

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

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

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

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

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

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

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

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

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records;

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

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

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

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

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

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) The first report covered the period commencing on the date of issuance of the original FESOP and ended on the last day of the reporting period. All subsequent reporting periods shall be based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Portable Source Requirement

C.20 Relocation of Portable Sources [326 IAC 2-14-4]

(a) This permit is approved for operation in all areas of Indiana except in severe nonattainment areas for ozone (at the time of this permit's issuance these areas were Lake and Porter Counties). This determination is based on the requirements of Prevention of Significant Deterioration in 326 IAC 2-2, and Emission Offset requirements in 326 IAC 2-3. Prior to locating in any severe nonattainment area, the Permittee must submit a request and obtain a permit modification.

(b) A request to relocate shall be submitted to IDEM, OAQ at least thirty (30) days prior to the intended date of relocation. This submittal shall include the following:

(1) A list of governmental officials entitled to receive notice of application to relocate. IC 13-15-3-1

(2) A list of adjacent landowners that the Permittee will send written notice to not more than ten (10) days after submission of the request to relocate. IC 13-15-8

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

(c) A "Relocation Site Approval" letter shall be obtained prior to relocating.

(d) The Permittee shall also notify the applicable local air pollution control agency when relocating to, or from, one 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 Department of Environmental Affairs)

(4) City of Hammond - (Hammond Department of Environmental Management)

(5) Marion County - (Indianapolis Office of Environmental Services)

(6) Vigo County - (Vigo County Air Pollution Control)

(e) A valid operation permit consists of this document and any subsequent "Relocation Site Approval" letter specifying the current location of the portable plant.

Stratospheric Ozone Protection

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

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

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

(a) One (1) drum mix asphalt plant, identified as Unit ID ES1, with a maximum rated throughput capacity of 400 tons per hour, equipped with one (1) 100 million British thermal units per hour (MMBtu/hr) fuel oil-fired burner, using either No. 4 fuel oil, No. 6 fuel oil, or waste oil, with particulate emissions controlled by one (1) baghouse, identified as CD-1, exhausting at one (1) stack (Stack ID: EP1);

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

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.1.1 Permit No Defense

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.1.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.1.3 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

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

D.1.4 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

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

D.1.5 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.90, Subpart I]

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

D.1.6 Opacity [326 IAC 12] [40 CFR 60.90, Subpart I]

Pursuant to 326 IAC 12, (40 CFR Part 60.92, Subpart I) “Standards of Performance for Hot Mix Asphalt Facilities”, the aggregate mixing and drying operation shall not discharge or cause the discharge into the atmosphere any gases which exhibit 20% opacity or greater.

D.1.7 Particulate Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a) (formerly 326 IAC 6-1-2(a)) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the aggregate mixing and drying operation (Emission Unit ID ES1) shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf). Compliance with this limit will also demonstrate compliance with the PM emission limit pursuant to 40 CFR 60.90, Subpart I.

D.1.8 PSD Minor Limit [326 IAC 2-2]

Particulate matter emissions from the aggregate mixing and drying operation (Emission Unit ID ES1) shall not exceed 0.101 pound PM per ton of asphalt mix. This is equivalent to a PM emission limit of 40.4 pounds per hour for Unit ID ES1 based on a maximum throughput of 400 tons of asphalt mix per hour.

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

D.1.9 Particulate Matter Less Than 10 Microns In Diameter (PM-10) [326 IAC 2-8-4][326 IAC 2-2][326 IAC 2-1.1-5]

Pursuant to 326 IAC 2-8-4, particulate matter less than 10 microns in diameter emissions from the aggregate mixing and drying operation (Emission Unit ID ES1) shall not exceed 0.047 pound of PM-10 per ton of asphalt mix. This is equivalent to a PM10 emission limit of 18.8 pounds per hour for Unit ID ES1 based on a maximum throughput of 400 tons of asphalt mix per hour. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply. This limit will also render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and the Non-attainment New Source Review requirements not applicable.

D.1.10 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-2][326 IAC 7-2-1]

(a) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 100 MMBtu per hour burner for the aggregate dryer shall be limited to 0.5 pounds per million Btu heat input or a sulfur content of less than or equal to 0.5 percent when using distillate oil.

(b) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 100 MMBtu per hour burner for the aggregate dryer shall be limited to 1.6 pounds per million Btu heat input or a sulfur content of less than or equal to 1.3 percent when using residual or waste oil. The source has accepted a sulfur content limit of 0.5 percent for residual and waste oil.

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

D.1.11 No. 6 Fuel Oil and Equivalent Usage, Sulfur Dioxide (SO_2) and NOx [326 IAC 2-8-4][326 IAC 2-3]

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

(a) the sulfur content of the No. 6 fuel oil used in the 100 MMBtu per hour burner for the aggregate dryer shall not exceed 0.5 percent.

(b) the combined usage of No. 6 fuel oil with a sulfur content of 0.5% and No. 6 fuel oil equivalents in the 100 MMBtu per hour burner for the aggregate dryer shall be limited to 2,477,197 U.S. gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, so that source-wide SO_2 emissions are limited below 100 tons per year. This fuel usage limit shall also limit source-wide NOx emissions to less than 100 tons per year.

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

(1) every 1,000 gallons of No. 4 fuel oil burned in the aggregate dryer burner shall be equivalent to 955.4 gallons of No. 6 fuel oil based on SO_2 emissions and a maximum No. 4 fuel oil sulfur content of 0.5% such that the total gallons of No. 6 fuel oil and No. 6 fuel oil equivalent input does not exceed the limit specified;

(2) every 1,000 gallons of waste oil burned in the aggregate dryer burner shall be equivalent to 880.1 gallons of No. 6 fuel oil based on SO_2 emissions and a maximum waste oil sulfur content of 0.47% such that the total gallons of No. 6 fuel oil and No. 6 fuel oil equivalent input does not exceed the limit specified.

Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-3 (Emission Offset) will not apply.

D.1.12 Waste Oil Usage, and HCl [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4(1), the usage of waste oil in the 100 MMBtu per hour burner for the aggregate dryer shall be limited to 1,542,700 U.S. gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, so that source-wide HCl emissions are limited below 10 tons per year. This fuel usage limit shall also limit source-wide total HAP emissions to less than 25 tons per year. Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.13 Cold-mix asphalt production

This source currently does not use cutback asphalt or asphalt emulsion at this source. Any change or modification that would cause the source to begin using cutback asphalt or asphalt emulsion shall require prior approval from IDEM, OAQ.

D.1.14 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.1.15 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

(a) During the period within 60 days after initial start-up but no later than 180 days after achieving the maximum production rate, in order to demonstrate compliance with Conditions D.1.5, D.1.7, D.1.8, and D.1.9, the Permittee shall perform PM and PM-10 testing on Stack EP1 for the aggregate mixing and drying operation utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) During the period within 60 days after initial start-up but no later than 180 days after achieving the maximum production rate, in order to demonstrate compliance with Condition D.1.6, the Permittee shall perform opacity testing on Stack EP1 utilizing 40 CFR Part 60 Appendix A, Method 9. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

D.1.16 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Conditions D.1.10 and D.1.11 shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input when burning No. 4 distillate fuel oil and 1.6 pounds per million But heat input when burning No. 6 residual fuel oil or waste oil by:

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

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

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

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

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 100 MMBtu per hour burner for the aggregate dryer, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

D.1.17 Particulate Matter (PM)

(a) In order to comply with conditions D.1.5, D.1.6, D.1.7, D.1.8, and D.1.9, the baghouse for PM and PM10 control shall be in operation and control emissions at all times when the aggregate mixing and drying operation (Emission Unit ID ES1) is in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.1.18 Hydrochloric Acid (HCl) Emissions and Chloride Content

Compliance with Condition D.1.12 shall be determined by providing the vendor analysis of the waste oil delivered, accompanied by a vendor certification.

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

D.1.19 Visible Emissions Notations

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

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

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

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

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

D.1.20 Parametric Monitoring

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

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

D.1.21 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

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

D.1.22 Record Keeping Requirements

(a) To document compliance with Conditions D.1.10 and D.1.11, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) below shall be complete and sufficient to establish compliance with the SO_2 and NOx emission limits established in conditions D.1.10 and D.1.11.

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

(2) Actual No. 6 fuel oil and No. 6 fuel oil equivalent usage per month since last compliance determination period and equivalent SO_2 emissions;

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

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

(4) Fuel supplier certifications.

(5) The name of the fuel supplier; and

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

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

(b) To document compliance with Condition D.1.12, the Permittee shall maintain records of the following:

(1) actual waste oil usage per month since the last compliance determination period and equivalent HCl emissions;

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

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

(3) Fuel supplier certifications.

(4) The name of the fuel supplier; and

(5) A statement from the fuel supplier that certifies the chloride content of the fuel oil.

(c) The Permittee shall maintain records sufficient to verify compliance with the procedures specified in condition D.1.16. Records shall be maintained for a period of five (5) years and shall be made available upon request by IDEM, OAQ.

(d) To document compliance with Condition D.1.19, the Permittee shall maintain records of daily visible emission notations of the aggregate dryer, mixer, and burner baghouse stack exhaust and the conveying, material transfer points, and screening.

(e) To document compliance with Condition D.1.20, the Permittee shall maintain daily records of the pressure drop during normal operation.

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

D.1.23 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.11 and D.1.12 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

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

(b) One (1) 30,000 gallon split fuel tank, consisting of one (1) 19,500 gallon storage reservoir, identified as Tank 1a, and one (1) 10,500 gallon storage reservoir, identified as Tank 1b, with both storage reservoirs separated by a permanent wall divider;

(c) One (1) 20,000 gallon liquid asphalt cement storage tank, identified as Tank 2; and

(d) One (1) 15,000 gallon liquid asphalt storage tank, identified as Tank 3.

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

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

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

(a) Pursuant to 326 IAC 8-9-6(a), the Permittee shall keep all records for Tanks 1a, 1b, 2, and 3 required by this section for three (3) years unless specified otherwise. Records required by subsection (b) shall be maintained for the life of the vessel.

(b) Pursuant to 326 IAC 8-9-6(b), the Permittee shall maintain a record for Tanks 1a, 1b, 2, and 3 and submit to the department a report containing the following information for each vessel:

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

SECTION D.3 FACILITY OPERATION CONDITIONS

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

(c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2(e)(2)]

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

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

D.3.1 Particulate [326 IAC 6-3-2(e)(2)]

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

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: MAC Construction & Excavating, Inc.
Initial Source Address: 1415 Quarry Road, Jeffersonville, Indiana 47130
Mailing Address: P.O. Box 6787, New Albany, Indiana 47151
FESOP No.: F019-21746-05282

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

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

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: 317-233-5674
Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: MAC Construction & Excavating, Inc.
Initial Source Address: 1415 Quarry Road, Jeffersonville, Indiana 47130
Mailing Address: P.O. Box 6787, New Albany, Indiana 47151
FESOP No.: F019-21746-05282

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

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

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

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

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

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: MAC Construction & Excavating, Inc.
Initial Source Address: 1415 Quarry Road, Jeffersonville, Indiana 47130
Mailing Address: P.O. Box 6787, New Albany, Indiana 47151
FESOP No.: F019-21746-05282
Facility: 100 MMBtu per hour burner for the aggregate dryer
Parameter: No. 6 fuel oil and equivalent usage limit to limit SO_2 and NOx emissions
Limit: the combined usage of No. 6 fuel oil with a sulfur content of 0.5% and No. 6 fuel oil equivalents in the 100 MMBtu per hour burner for the aggregate dryer shall be limited to 2,477,197 U.S. gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	No. 6 fuel oil and equivalent usage This Month (gallons)	No. 6 fuel oil and equivalent usage Previous 11 Months (gallons)	12 Month Total No. 6 fuel oil and equivalent usage (gallons)
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: MAC Construction & Excavating, Inc.
Initial Source Address: 1415 Quarry Road, Jeffersonville, Indiana 47130
Mailing Address: P.O. Box 6787, New Albany, Indiana 47151
FESOP No.: F019-21746-05282
Facility: 100 MMBtu per hour burner for the aggregate dryer
Parameter: Waste oil usage limit to limit HCl emissions
Limit: the usage of waste oil in the 100 MMBtu per hour burner for the aggregate dryer shall be limited to 1,542,700 U.S. gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	Waste oil usage This Month (gallons)	Waste oil usage Previous 11 Months (gallons)	12 Month Total Waste oil usage (gallons)
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE DATA SECTION

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

Source Name: MAC Construction & Excavating, Inc.
Initial Source Address: 1415 Quarry Road, Jeffersonville, Indiana 47130
Mailing Address: P.O. Box 6787, New Albany, Indiana 47151
FESOP No.: F019-21746-05282

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

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

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

Page 2 of 2

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

Form Completed By: ______________________________

Title/Position: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

ATTACHMENT A

ASPHALT PLANT SITE FUGITIVE DUST CONTROL PLAN

(a) Fugitive emissions from paved roads shall be controlled by spraying truck tires with high pressure washers to clean them prior to entering the plant's paved asphalt road.

(b) The main haul road and all other traffic areas shall be paved.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	**MAC Construction & Excavating, Inc.**
Initial Source Location:	**1415 Quarry Road, Jeffersonville, Indiana 47130**
County:	**Clark**
SIC Code:	**2951**
Operation Permit No.:	**019-21746-05282**
Permit Reviewer:	**Trish Earls/EVP**

The Office of Air Quality (OAQ) has reviewed a FESOP application from MAC Construction & Excavating, Inc. relating to the construction and operation of a portable drum mix asphalt plant. This plant will be initially located on property owned by Liter's Quarry of Indiana. There are currently no other operations at this site.

Permitted Emission Units and Pollution Control Equipment

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

Unpermitted Emission Units and Pollution Control Equipment

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

New Emission Units and Pollution Control Equipment Receiving Advanced Source Modification Approval

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11):

(a) One (1) drum mix asphalt plant, identified as Unit ID ES1, with a maximum rated throughput capacity of 400 tons per hour, equipped with one (1) 100 million British thermal units per hour (MMBtu/hr) fuel oil-fired burner, using either No. 4 fuel oil, No. 6 fuel oil, or waste oil, with particulate emissions controlled by one (1) baghouse, identified as CD-1, exhausting at one (1) stack (Stack ID: EP1);

(b) One (1) 30,000 gallon split fuel tank, consisting of one (1) 19,500 gallon storage reservoir, identified as Tank 1a, and one (1) 10,500 gallon storage reservoir, identified as Tank 1b, with both storage reservoirs separated by a permanent wall divider;

(c) One (1) 20,000 gallon liquid asphalt cement storage tank, identified as Tank 2; and

(d) One (1) 15,000 gallon liquid asphalt storage tank, identified as Tank 3.

Insignificant Activities

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

(a) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight including:

(1) One (1) No. 2 distillate fuel oil-fired hot oil heater, rated at 1.2 MMBtu per hour; exhausting through stack EP2.

(b) VOC and HAP storage containers storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

(d) Structural steel and bridge fabrication activities using 80 tons or less of welding consumables.

(e) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

(f) Aggregate and RAP storage piles.

Existing Approvals

This is the first air approval issued to this source.

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 September 7, 2005.

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

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 10).

Potential to Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, inclulding air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	Greater than 250
PM-10	Greater than 250
SO_2	Less than 250, Greater than 100
VOC	Less than 100
CO	Less than 100
NO_x	Less than 250, Greater than 100

HAPs	Unrestricted Potential Emissions (tons/yr)
Antimony	Less than 10
Arsenic	Less than 10
Acetaldehyde	Less than 10
Acrolein	Less than 10
Benzene	Less than 10
Beryllium	Less than 10
Cadmium	Less than 10
Chromium	Less than 10
Cobalt	Less than 10
Ethylbenzene	Less than 10
Formaldehyde	Less than 10
Hexane	Less than 10
2,2,4 Trimethylpentane	Less than 10
Methyl chloroform	Less than 10
MEK	Less than 10
Phenol	Less than 10
Priopionaldehyde	Less than 10
Quinone	Less than 10
Lead	Less than 10
Manganese	Less than 10
Mercury	Less than 10
Nickel	Less than 10
Selenium	Less than 10
Toluene	Less than 10
PAHs	Less than 10
Xylene	Less than 10
Total	Less than 25

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM-10, SO_2, and NOx are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 2-7. The source will be issued a FESOP because the source will limit its emissions below the Title V levels.

(b) Fugitive Emissions
Since there are applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability. This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2.

Potential to Emit After Issuance

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

	Potential To Emit (tons/year)						
Process/emission unit	PM	PM-10	SO_2	VOC	CO	NO_x	HAPs
Aggregate Drying and Drum Mixing[1]	55.33[2]	81.87[3]	97.23	19.55	7.04	60.93	18.14
Hot Oil heater	0.08	0.12	2.67	0.01	0.19	0.75	Negl.
Conveying/Handling	4.16	1.97	0.00	0.00	0.00	0.00	0.00
Paved Roads[4]	66.08	12.89	0.00	0.00	0.00	0.00	0.00
Aggregate Storage	0.60	0.21	0.00	0.00	0.00	0.00	0.00
Load-out and Silo filling	1.94	1.94	0.00	28.20	4.43	0.00	0.56
Total Emissions	128.19	99.00	99.9	47.76	11.66	61.68	18.70

(1) Limited PTE reflects fuel usage limitation to comply with 326 IAC 2-8 (FESOP).
(2) Maximum allowable PM emissions pursuant to 326 IAC 6.5-1-2.
(3) Maximum allowable PM10 emissions in order to comply with 326 IAC 2-8 (FESOP).
(4) Potential to emit after controls.

County Attainment Status

The source is located in Clark County.

Pollutant	Status
PM2.5	Nonattainment
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Clark County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Clark County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability for the source section.

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

Portable Source

(a) Initial Location
This is a portable source and its initial location is 1415 Quarry Road, Jeffersonville, Indiana 47130.

(b) PSD and Emission Offset Requirements
The emissions from this portable source were reviewed under the requirements of the Prevention of Significant Deterioration (PSD) 326 IAC 2-2 and Emission Offset 326 IAC 2-3.

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

Source Status

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

Pollutant	Emissions (tons/yr)
PM	90.12
PM-10	20.61
SO_2	99.90
VOC	47.76
CO	11.66
NO_x	61.68
Single HAP	<10.0
Combination HAPs	<25.0

(a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

(b) This new source is **not** a major stationary source because NOx and VOC are not emitted at a rate of 100 tons per year or greater. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

(c) This new source is **not** a major stationary source because PM10 is not emitted at a rate of 100 tons per year or greater. Therefore, the Non-attainment New Source Review requirements do not apply.

Federal Rule Applicability

(a) This source is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90, Subpart I) because it meets the definition of a hot mix asphalt facility pursuant to the rule and it was constructed after June 11, 1973. This rule limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf) and also limits visible emissions to 20% opacity. The source will comply with this rule by using a baghouse to limit particulate matter emissions to less than 0.04 gr/dscf (see Appendix A, page 9 of 9, for detailed calculations).

(b) The requirements of the NSPS, 40 CFR 60.110b through 60.117b, Subpart Kb were not included in this permit for the one (1) 20,000 gallon storage tank because the tank has a storage capacity greater than 75 cubic meters but less than 151 cubic meters, and the liquid stored in the tank has a maximum true vapor pressure of less than 15.0 kPa, therefore, pursuant to 40 CFR 60.110b(b), the tank is exempt from the requirements of this rule.

The requirements of the NSPS, 40 CFR 60, Subpart Kb were not included in this permit for the one (1) 30,000 gallon split fuel tank, consisting of one (1) 19,500 gallon storage reservoir, identified as Tank 1a, and one (1) 10,500 gallons storage reservoir, identified as Tank 1b, nor the one (1) 15,000 gallon storage tank because each tank has a storage capacity that is less than 75 cubic meters. Since the divider in the split fuel tank is a permanent divider, Tanks 1a and 1b are considered separate tanks under the definition of a storage vessel.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit for this source because it is not a major source of HAP emissions.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This new source has an unrestricted potential to emit for PM and PM-10 that meets the definition of “major PSD source” pursuant to 326 IAC 2-2-1(w)(2). However, the potential to emit of PM-10 is enforceably restricted to less than one hundred (100) tons per year such that 326 IAC 2-7 does not apply. See 326 IAC 2-8-4 (FESOP) below. In addition, particulate matter emissions from the aggregate mixing and drying operation (Emission Unit ID ES1) shall not exceed 0.101 pound PM per ton of asphalt mix. This is equivalent to a PM emission limit of 40.4 pounds per hour based on a maximum throughput of 400 tons of asphalt mix per hour. This limits total source-wide PM emissions to less than 250 tons per year. Therefore, the potential to emit of PM and PM-10 are enforceably restricted to less than the major source thresholds of 250 tons per year such that 326 IAC 2-2 does not apply.

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

Clark County has been designated as non-attainment for PM 2.5 in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled “Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas” authored by Steve Page, Director of OAQPS, until EPA promulgates the PM 2.5 major NSR regulations, states should assume that a major stationary source’s PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. A major source in a nonattainment area as a source that emits or has the potential to emit 100 tpy of any regulated pollutant. MAC Construction & Excavating, Inc. has a limited potential to emit of PM10 below 100 tpy. See 326 IAC 2-8-4 (FESOP) below. Therefore, assuming that PM10 emissions represent PM2.5 emissions, 326 IAC 2-3 does not apply.

Clark County has been designated as basic nonattainment for the 8-hour ozone standard. Therefore, the federally enforceable NOx emission limit of less than 100 tons per year to comply with 326 IAC 2-8-4 (FESOP) below will also render 326 IAC 2-3 (Emission Offset) not applicable and the unrestricted potential to emit of VOC of less than 100 tons per year also makes this rule not applicable.

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source has submitted a Preventive Maintenance Plan (PMP) on September 7, 2005. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

326 IAC 2-6 (Emission Reporting)

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

326 IAC 2-8-4 (FESOP)

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

(a) The usage of No. 6 fuel oil with a sulfur content of 0.50% and No. 6 fuel oil equivalents in the 100 MMBtu per hour aggregate dryer burner shall be limited to 2,477,197 U.S. gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, so that source-wide SO_2 emissions are limited to 99.9 tons per year. This fuel usage limit shall also limit source-wide NOx emissions to less than 100 tons per year.

For purposes of determining compliance based on SO_2 emissions (See calculations page 5 of 9, Appendix A), the following shall apply:

(1) every 1,000 gallons of No. 4 fuel oil burned in the aggregate dryer burner shall be equivalent to 955.4 gallons of No. 6 fuel oil based on SO_2 emissions and a maximum No. 4 fuel oil sulfur content of 0.5% such that the total gallons of No. 6 fuel oil and No. 6 fuel oil equivalent input does not exceed the limit specified;

(2) every 1,000 gallons of waste oil burned in the aggregate dryer burner shall be equivalent to 880.1 gallons of No. 6 fuel oil based on SO_2 emissions and a maximum waste oil sulfur content of 0.47% such that the total gallons of No. 6 fuel oil and No. 6 fuel oil equivalent input does not exceed the limit specified.

(b) PM-10 emissions from the aggregate dryer shall be limited to 0.047 pound PM-10 per ton of asphalt mix equivalent to 18.8 pounds per hour, based on a maximum throughput of 400 tons of asphalt mix per hour. This limits source-wide PM-10 emissions to less than 100 tons per year. The source will comply with the PM-10 emission limit by utilizing a baghouse for controlling PM-10 emissions to less than 18.8 pounds per hour from the aggregate dryer.

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

The operation of this source will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Opacity Limitations)

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

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

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

326 IAC 6-4-1 (Fugitive Dust Emissions)

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

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

This source is subject to 326 IAC 6-5 for fugitive particulate matter emissions. Pursuant to 326 IAC 6-5, for any new source which has not received all the necessary preconstruction approvals before December 13, 1985, a fugitive dust control plan must be submitted, reviewed and approved. The fugitive dust control plan for this source includes the following:

Fugitive emissions from paved roads shall be controlled by spraying truck tires with high pressure washers to clean them prior to entering the plant's paved asphalt road.

State Rule Applicability – Individual Facilities

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

(a) The aggregate mixing and drying operation is not subject to the requirements of 326 IAC 6-3-2. This rule does not apply if the limitation established in the rule is less stringent than applicable limitations in 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset), the former 326 IAC 6-1 under 40 CFR 52, Subpart P, 326 IAC 11, 326 IAC 12, or 326 IAC 20. Since the applicable PM emission limits established by 326 IAC 12, 40 CFR 60, Subpart I and the former 326 IAC 6-1-2 under 40 CFR 52, Subpart P are less than the PM limit that would be established by 326 IAC 6-3-2 (66.31 pounds per hour, see Appendix A, page 9 of 9), the more stringent limits apply and the limit pursuant to 326 IAC 6-3-2 does not apply to the aggregate mixing and drying operation.

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

(1) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

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

The particulate matter emissions from the aggregate mixing and drying operation are subject to the requirements of 326 IAC 6.5-1-2(a) (Particulate matter limitations except Lake County) (formerly 326 IAC 6-1-2) because this source is located in one of the counties listed in 326 IAC 6.5-1-1(a) and potential particulate matter (PM) emissions exceed 100 tons per year. Pursuant to 326 IAC 6.5-1-2(a), PM emissions from the aggregate mixing and drying operation (Emission Unit ID ES1) are limited to 0.03 grains per dry standard cubic foot (gr/dscf). This limitation is more stringent than the additional applicable requirement of 0.04 grains per dry standard cubic foot pursuant to 326 IAC 12 (New Source Performance Standards) and 40 CFR 60.90 (Subpart I - Standards of Performance for Hot Mix Asphalt Facilities). Therefore, compliance with 326 IAC 6.5-1-2(a) will satisfy the grain loading limit of 0.04 gr/dscf pursuant to 326 IAC 12 and 40 CFR 60.90 to 60.93, Subpart I. The source will comply with this rule by using a baghouse to limit particulate matter emissions to less than 0.03 gr/dscf (see Appendix A, page 9 of 9, for detailed calculations).

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

This source is subject to the requirements of 326 IAC 7-1.1 because the potential to emit (PTE) of SO_2 is greater than the applicable level of 25 tons per year.

Pursuant to this rule, the sulfur dioxide emissions from the 100 MMBtu/hr dryer burning No. 6 residual fuel oil or waste oil shall be limited to 1.6 pounds per MMBtu heat input. This equates to a fuel oil sulfur content limit of 1.5%. Therefore, the sulfur content of the fuel must be less than or equal to 1.5% in order to comply with this rule (See Appendix A, Page 9 of 9 for detailed calculations). The source will comply with this rule by using No. 6 residual fuel oil or waste oil with a sulfur content of 0.5% or less.

The sulfur dioxide emissions from the 100 MMBtu/hr dryer burning distillate oil shall be limited to 0.5 lb/MMBtu heat input. This equates to a fuel oil sulfur content limit of 0.5%. Therefore, the sulfur content of the fuel must be less than or equal to 0.5% in order to comply with this rule (See Appendix A, Page 9 of 9 for detailed calculations). The source will comply with this rule by using No. 4 fuel oil (which can be either distillate oil or a mixture of distillate and residual oil) with a sulfur content of 0.5% or less.

The 1.2 MMBtu/hr hot oil heater is not subject to the requirements of this rule because potential SO_2 emissions from this unit are less than 25 tons per year.

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

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

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

This rule applies to any paving application constructed after January 1, 1980 located anywhere in the state. No person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

1) penetrating prime coating
2) stockpile storage
3) application during the months of November, December, January, February and March.

This source currently does not use cutback asphalt or asphalt emulsion at this source. Any change or modification that would cause the source to begin using cutback asphalt or asphalt emulsion shall require prior approval from IDEM, OAQ.

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

On and after October 1, 1995, this rule applies to stationary vessels used to store volatile organic liquid (VOL) that are located in Clark, Floyd, Lake, or Porter County. The one (1) 30,000 gallon split fuel tank, consisting of one (1) 19,500 gallon storage tank, identified as Tank 1a, and one (1) 10,500 gallons storage tank, identified as Tank 1b, the 20,000 gallon storage tank, identified as Tank 2, and the 15,000 gallon storage tank, identified as Tank 3, at this source are subject to this rule because the source is located in Clark County and they are used to store a VOL. Pursuant to 326 IAC 8-9-1(b), stationary vessels with a capacity of less than thirty-nine thousand (39,000) gallons are subject to the reporting and record keeping provisions of section 6(a) and 6(b) of this rule and are exempt from all other provisions of this rule.

Pursuant to 326 IAC 8-9-6(a), the owner or operator of each vessel subject to this rule shall keep all records required by this section for three (3) years unless specified otherwise. Records required by subsection (b) shall be maintained for the life of the vessel.

Pursuant to 326 IAC 8-9-6(b), the owner or operator of each vessel to which section 1 of this rule applies shall maintain a record and submit to the department a report containing the following information for each vessel:

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

329 IAC 13-8 (Used Oil Requirements)

(a) Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

(1) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),

(2) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and

(3) Maintain records pursuant to 329 IAC 13-8-6 (Tracking).

(b) The waste oil burned in the aggregate dryer/mixer burner shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). The burning of mixtures of used oil and hazardous waste that is regulated by 329 IAC 3.1 is prohibited at this source.

Testing Requirements

This source is subject to 40 CFR 60, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities), and shall comply with the particulate matter (PM) and opacity compliance testing requirements of the rule. OAQ has also required PM-10 testing to demonstrate FESOP compliance.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

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

1. The conveying, material transfer points, screening, and mixing and drying operation have applicable compliance monitoring conditions as specified below:

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

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

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

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

   (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

   (f) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer, mixer, and burner, at least once daily when the aggregate dryer, mixer, and burner are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan – Preparation, Implementation, Records and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

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

   (g) An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer, mixer, and burner. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

   (h) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(2) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

Conclusion

The operation of this portable drum mix asphalt plant shall be subject to the conditions of the FESOP 019-21746-05282.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (TSD) for a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	**MAC Construction & Excavating, Inc.**
Source Location:	**1415 Quarry Road, Jeffersonville, IN**
County:	**Clark**
SIC Code:	**2951**
Operation Permit No.:	**F 019-21746-05282**
Permit Reviewer:	**Trish Earls**

On October 7, 2005, the Office of Air Quality (OAQ) had a notice published in the Evening News, Clark County, Indiana, stating that MAC Construction & Excavating Co. (MAC Construction) had applied for a Federally Enforceable State Operating Permit (FESOP) to construct and operate a portable hot mix asphalt manufacturing source. The notice also stated that OAQ proposed to issue a permit for this source and provided information on how the public could review the draft 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.

On November 15, 2005, the Office of Air Quality (OAQ) had a notice published in the Evening News, Clark County, Indiana, stating that a public hearing would be held to receive comments from citizens regarding the draft permit. On November 30, 2005, a public hearing was held at the Clark County Building, Room 308, 501 Court Street, Jeffersonville, Indiana. Doug Wagner represented IDEM as the hearing officer. Also present from IDEM were Nathan Bell and Ray Schick. Comments were heard from Victor Unruh from MAC Construction, Margaret Purcell, Brian Schembari, Gary Holman, Paul Demyan, James Davin, Donna Barker, Mary Sullivan, Samantha Sims, Catherine Sutton Schoate from Astec Industries, and John Deuchert. A transcript was made of the hearing by Accurate Reporting of Indiana.

Comments and questions from the hearing have been summarized and are addressed below:

Comment 1:

Will the emissions from the plant affect the health of residents in the area? MAC Construction's asphalt plant will be located in Liter's quarry. Residents are already experiencing problems with dust emissions from the existing quarry; the addition of the asphalt plant will worsen the air quality. Has IDEM considered how the emissions will affect the children in nearby elementary schools and people who have breathing difficulties, such as asthma? History has shown that plants do not always stay within their limits, causing health concerns. We are concerned for our children and our health.

Response to Comment 1:

In response to the health concerns expressed from the citizens of Jeffersonville, IDEM, OAQ has conducted predictive air modeling utilizing sophisticated computer programs to determine the impact of Hazardous Air Pollutants (HAPs), carbon monoxide, sulfur dioxide, particulate matter less than 10 microns, and oxides of nitrogen resulting from MAC Construction operating an asphalt plant under the conditions established in the final air permit. HAPs are those pollutants that may cause cancer or other health effects and are regulated under the Clean Air Act Amendments of 1990. IDEM, OAQ also performed a risk assessment for the emission of HAPs using methods recommended in the U.S. EPA's Risk Assessment Library. A risk analysis uses health protective assumptions to estimate if there is a possibility of adverse health effects occurring due to exposure from individual pollutants as well as the combined effect of pollutants. The risk analysis of the predicted exposure to HAPs based on the results of the air modeling is attached in Appendix A of this Addendum to the Technical Support Document.

This risk assessment is based on the assumption that the exposure to HAP would be to sensitive subpopulations. That is, the risk assessment was performed assuming that exposed individuals fall into some sort of a sensitive subpopulation category (elderly, children, individuals with compromised immune systems, etc.) and are continuously exposed to the maximum predicted concentration of HAPs of MAC Construction for seventy (70) years. This is a health protective assumption to account for those subpopulations mixed within the general population.

The analysis of the HAP emissions concluded that:

(a) There is no reasonable expectation of acute (short term) health effects due to HAPs exposure resulting from the operation of this new asphalt plant. None of the HAPs had a level above the Acute Minimum Risk Level, so no acute affects are expected.

(b) There is no reasonable expectation of chronic non-cancer health effects (respiratory problems, neurological problems etc.) due to HAPs exposure resulting from the operation of this new asphalt plant. The total chronic hazard index is less than one (1.0). The Chronic Hazard Index (HI) makes the health protective assumption that all pollutants affect the body the same way. The HI is used to determine if it is reasonable to expect adverse health effects to be observed when individuals are exposed to all the pollutants at the same time. A Hazard Index below a level of one (1.0) indicates that there is no reasonable expectation of health effects occurring due to HAP exposure.

(c) Cancer risk due to HAP exposure resulting from operation of this new asphalt plant is below the target as set by U.S. EPA. The upper bound estimate of additional cancer risk in the area due to exposure of carcinogens is 6.3 E-7. In other words, the cancer risk represents a probability of an additional 0.6 cancer cases over a 70 year period assuming 1 million people breathe the air continuously for a lifetime (70 years). The U.S. EPA 1989 Benzene National Emission Standard for Hazardous Air Pollutants set a target of protecting persons to a lifetime cancer risk of no higher than approximately 1 in 1,000,000 (1.0 E-6).

The U.S. Environmental Protection Agency (EPA) has set National Ambient Air Quality Standard (NAAQS) based on health, which is why the NAAQS are often referred to as the federal health standards for outdoor air. The Clean Air Act requires EPA to set NAAQS for pollutants that cause adverse effects to public health and the environment. EPA does not base NAAQS standards on the needs of industry.

OAQ performed computer modeling of the expected emissions of carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM), and Oxides of Nitrogen (NO_x) and compared the results to the corresponding health-based standards (National Ambient Air Quality Standards or NAAQS) established by the U.S. EPA and adopted by Indiana. The U.S. EPA recommends that states use PM-10 analyses as a surrogate for PM-2.5 emissions until final requirements have been established at the federal level. The modeling results show that the emissions of PM-2.5, CO, SO_2 and NO_x from the MAC Construction plant will be very much below their corresponding NAAQS. The modeling results are attached in Appendix A of this Addendum to the Technical Support Document.

Emissions calculations for Hydrogen Chloride (HCl) from burning re-refined (waste) oil and from aggregate drying are set out in Appendix A of this Addendum to the Technical Support Document using emission factors from US EPA's AP-42. To ensure that HCl emissions are less than major source thresholds, a new condition D.1.12 has been added to place an additional restriction on the waste oil burned in the dryer/burner. Also a new condition numbered D.1.18 has been added requiring the source to provide a vendor analysis of the waste oil to IDEM showing the chloride content of the waste oil which is used to calculate HCl emissions from waste oil combustion. The remaining conditions in section D.1 have been re-numbered accordingly. Condition D.1.21, now re-numbered D.1.22, has also been revised to include a new paragraph (b) requiring recordkeeping for this additional limit, condition D.1.22, now re-numbered D.1.23, has been revised to include reporting for this limit, and a Quarterly Report form has been added to the FESOP without replication herein:

D.1.12 Waste Oil Usage, and HCl [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4(1), the usage of waste oil in the 100 MMBtu per hour burner for the aggregate dryer shall be limited to 1,542,700 U.S. gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, so that source-wide HCl emissions are limited below 10 tons per year. This fuel usage limit shall also limit source-wide total HAP emissions to less than 25 tons per year. Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.18 Hydrochloric Acid (HCl) Emissions and Chloride Content

Compliance with Condition D.1.12 shall be determined by providing the vendor analysis of the waste oil delivered, accompanied by a vendor certification.

D.1.2~~1~~**2** Record Keeping Requirements

(b) To document compliance with Condition D.1.12, the Permittee shall maintain records of the following:

(1) actual waste oil usage per month since the last compliance determination period and equivalent HCl emissions;

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

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

(3) Fuel supplier certifications.

(4) The name of the fuel supplier; and

(5) A statement from the fuel supplier that certifies the chloride content of the fuel oil.

D.1.22**3** Reporting Requirements

A quarterly summary of the information to document compliance with Condition**s** D.1.11 **and D.1.12** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

A major source of HAPs is one that has the potential to emit any single HAP greater than or equal to ten (10) tons per year or the potential to emit a combination of HAPs greater than or equal to twenty-five (25) tons per year. As shown in the table below, the MAC Construction plant will not be a major source of HAPs.

IDEM requires sources to comply with all health-based and technology-based standards established by the U.S. EPA and the Indiana Air Pollution Control Board, including the NAAQS. If an applicant demonstrates that they will be able to comply with all Federal and State laws regarding air pollution, IDEM is required by law to issue an air permit. IDEM has determined that MAC Construction will be able to comply with all Federal and State air pollution control laws.

The major source thresholds for a facility operating in Clark County are shown in the following table. Also shown are the limited emissions for the MAC Construction plant. This table shows that the emissions from this plant are limited to less than the major source thresholds. The table summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential To Emit (tons/yr)						
Process/Emission Unit	PM	PM_{10}	SO_2	VOC	CO	NO_x	HAPs
Drum mixer including burner (worst case)	55.33	81.87	97.23	56.83	6.48	60.93	Single (hydrogen chloride) 6.19 Total 24.33
Hot oil heater	0.08	0.12	2.67	0.01	0.19	0.75	Negl.
Conveying/handling	4.16	1.97	-	-	-	-	-
Paved roads	66.08	12.89	-	-	-	-	-
Aggregate Storage	0.60	0.21	-	-	-	-	-
Load-out & Silo Filling	1.94	1.94	-	28.20	4.43	-	0.51
Total Emissions	128.19*	99.00	99.90	47.76	11.66	61.68	Single (hydrogen chloride) 6.19 Total 24.84
Major Source Thresholds	250	100	100	100	100	100	Single <10 Total <25

* Excluding fugitive PM emissions from paved roads. Pursuant to 40 CFR 60.90(a), the affected facility to which the provisions of Subpart I apply is each hot mix asphalt facility. For the purpose of Subpart I, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.

IDEM uses the maximum capacity of the source under its physical and operational design in conjunction with emission factors as approved by the EPA to calculate emissions for specific processes. For more information regarding EPA approved emission factors visit www.epa.gov/ttn/chief. These emission factors are most often based on direct measurements of emissions at similar sources. When direct measurement is not possible, mass balances or engineering calculations form the basis for the emission factor.

The permit requires MAC Construction to keep a variety of records and to report on how it operates on a day-to-day basis. For example, condition D.1.11 limits the input of No. 6 fuel oil to the dryer/burner to less than 2,477,197 gallons per 12 month consecutive period and the new condition D.1.12 limits the input of waste oil to the dryer/burner to less than 1,542,700 gallons per 12 month consecutive period. To demonstrate compliance with these requirements, the source will submit quarterly reports indicating that the source was in compliance for each day during that quarter. These reports are available for public review. Falsification of records is a criminal offense.

Compliance monitoring conditions, such as daily visible emissions notations and pressure drop readings of the baghouse are included in the permit to document that the control equipment is operating properly at all times. This is intended to ensure that the plant is in continuous compliance with the permit limitations. See Response #3 below for more information on the requirements that will be included in the permit to address fugitive dust emissions.

The permit also requires that MAC Construction conduct emissions testing no later than 180 days after achieving the maximum production rate. This is a test that involves using scientific instruments to measure the amount of particulate (PM and PM_{10}) actually being released from that stack on that day. This test is required to ensure compliance with the PM and PM_{10} limits. The stack test results will be available for public review after it is completed.

Both the quarterly reports and the stack test results can be obtained by contacting OAQ Compliance Branch at 1-800-452-6027 ext. 3-0178.

Comment 2:

We have a dust problem from the quarry. How many citations have been issued to the quarry in the last five years? Why have no citations been issued to the quarry? The dust pours out of the quarry. The dust builds up; when it rains the leaves drop a slurry onto cars. The quarry is ignoring the rules and getting away with it. Does IDEM call ahead to the plant to let them know an inspector is coming?

Response to Comment 2:

Full inspections include both an observation of emissions from the plant, and a complete review of all required records. In addition to full inspections, the inspector will also conduct surveillance of plant emissions to determine if there are any violations of opacity or fugitive dust rules. Surveillances differ from full inspections because surveillances do not always require the inspector to enter the plant, and surveillances do not include a review of the plant's required records.

Between May 26, 2005 and October 11, 2005, IDEM conducted surveillance of the quarry's operations eight times looking for fugitive dust violations. In order to find a violation of the fugitive dust regulation, IDEM must observe dust crossing the property line at ground level. IDEM has not yet observed dust crossing the property line at ground level, therefore, no violations have been issued. IDEM does not call the plant prior to any inspection or surveillance. However, just prior to the inspector going out on the berm at the edge of the quarry, he does check-in with the weigh scale operator to determine if any blasting is about to occur in that area.

Any further questions can be directed to the inspector for Clark County, Ray Schick, who can be reached at 317-233-5674.

Comment 3:

What are aggregate storage piles? Are these piles open to the wind? What does "an open dust emission" mean in regard to the aggregate bins? What happens after you dry the aggregate? Is there any grinding done at the plant? Are the aggregate bins and conveyors going to create a lot of dust, since they are all open to the air? What permit condition limits the amount of dust from the conveyors and bins?

Response to Comment 3:

Hot mix asphalt is produced at the plant by mixing previously crushed rock, called aggregate, with liquid asphalt cement. The raw aggregate is stored in piles open to the wind and weather at the plant site and will be left uncovered, since there will be frequent transfer of aggregate into and out of the pile. Dust or particulate matter (PM) emissions can occur during aggregate loading onto the pile, disturbances by strong wind currents, and load out from the pile. The movement of trucks and loading equipment in the storage pile area is also a source of dust. There is no crushing or grinding of the aggregate performed at the asphalt plant. In the asphalt production process, the aggregate is first loaded into bins and then conveyed to the aggregate rotary dryer. In the Technical Support Document (TSD) for the permit, the fugitive dust emissions generated during storage of the raw aggregate in piles and processing of the raw aggregate in the bins and conveyors were estimated to be approximately 5 tons per year using EPA approved AP-42 air pollution emission factors.

During the asphalt production process, aggregate is dried in a rotary dryer. The rotary dryer consists of a rotating drum that mixes the aggregate and an oil-fired burner that heats and dries the aggregate to remove moisture. After the aggregate is dried, the liquid asphalt cement is mixed in, which coats the aggregate. In the TSD for the permit, the particulate matter (PM) emissions generated by the aggregate dryer during the drying process were estimated using AP-42 emission factors to be 49,156 tons per year before particulate controls, which is greater than 99 percent of the uncontrolled PM emissions at the asphalt plant. The aggregate dryer emissions are ducted to a baghouse, which removes an estimated 99.96 percent of the PM before it is exhausted to the atmosphere.

The permit contains several conditions that limit the PM emitted from the aggregate dryer. The most stringent conditions include Condition D.1.7 (Particulate Matter), which limits PM emissions from the aggregate dryer to 0.03 grains per dry standard cubic foot of exhaust air pursuant to 326 IAC 6.5-1-2, and Condition D.1.6 (Opacity), which limits opacity emitted from the aggregate dryer to less than 20% pursuant to 326 IAC 12 and 40 CFR 60.90 Subpart I. In order to comply with these conditions, the source is required to control PM emissions from the aggregate dryer using the baghouse which exhausts to stack EP1 (Condition D.1.17 of the permit). To demonstrate compliance with the PM limits pursuant to 326 IAC 12 and 40 CFR 60.90 Subpart I in condition D.1.5, and pursuant to 326 IAC 6.5-1-2 in condition D.1.7 and the opacity limit pursuant to 326 IAC 12 and 40 CFR 60.90, Subpart I in condition D.1.6, the source must conduct PM, PM10 and opacity testing on Stack EP1 for the aggregate mixing and drying operation within 60 days after initial start-up but no later than 180 days after achieving the maximum production rate. Until the stack testing is performed, the compliance monitoring conditions in the permit will be used to ensure that the control equipment is operating properly at all times to achieve compliance with the permit limitations.

The permit contains several conditions that regulate the amount of dust emitted from storage and processing of aggregate at the plant site. Condition C.3 (Opacity) of the permit regulates the opacity from all sources at the asphalt plant pursuant to Indiana Administrative Code 326 IAC 5-1. Conditions C.6 (Fugitive Dust Emissions) and C.7 (Fugitive Particulate Matter Emission Limitations) of the permit regulate fugitive dust at the plant site pursuant to 326 IAC 6-4 and 326 IAC 6-5, respectively. Condition C.6 states that "The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions)." Condition C.7 requires the Permittee to control fugitive particulate matter emissions according to the fugitive dust control plan submitted by the Permittee on September 7, 2005. The plan is included as Attachment A of the FESOP. To minimize the amount of dust generated from truck traffic at the site, the source is required to control fugitive dust by spraying truck tires with high pressure washers to clean them prior to entering the plant's paved asphalt road. The source will also pave the main haul road and all other traffic areas.

Comment 4:

What type and amount of fuels are going to be stored at the site? Will there be moats around the storage tanks?

Response to Comment 4:

The MAC Construction plant will have one 30,000 gallon split fuel oil tank, consisting of one 19,500 gallon storage reservoir and one 10,500 gallon storage reservoir; one 20,000 gallon liquid asphalt cement storage tank and one 15,000 gallon liquid asphalt storage tank. All tanks are above-ground tanks. The plant will use No. 6 fuel oil, No. 4 fuel oil, and re-refined (waste) oil. As stated in the Technical Support Document to the FESOP, the requirements of the NSPS, 40 CFR 60.110b through 60.117b, Subpart Kb were not included in this permit for the one (1) 20,000 gallon storage tank because the tank has a storage capacity greater than 75 cubic meters but less than 151 cubic meters, and the liquid stored in the tank has a maximum true vapor pressure of less than 15.0 kPa, therefore, pursuant to 40 CFR 60.110b(b), the tank is exempt from the requirements of this rule. The requirements of the NSPS, 40 CFR 60, Subpart Kb were not included in this permit for the one (1) 30,000 gallon split fuel tank, consisting of one (1) 19,500 gallon storage reservoir, identified as Tank 1a, and one (1) 10,500 gallons storage reservoir, identified as Tank 1b, nor the one (1) 15,000 gallon storage tank because each tank has a storage capacity that is less than 75 cubic meters. Since the divider in the split fuel tank is a permanent divider, Tanks 1a and 1b are considered separate tanks under the definition of a storage vessel. Since the tanks are exempt from the storage vessel regulations, IDEM has no authority to require moats around the storage tanks. The plant will have equipment on site to collect any material that might be released during a malfunction, process upset, or spill cleanup. This equipment may include catch tanks, temporary liquid separator tanks and fluid handling equipment.

Comment 5:

Can IDEM require that MAC Construction install additional monitoring systems? Can IDEM require MAC Construction to install an air monitoring site upwind and downwind of the plant?

Response to Comment 5:

IDEM does not have the authority to require MAC Construction to install additional monitoring systems without legal justification, nor does IDEM have the authority to require MAC Construction to install ambient air monitors upwind and downwind of their operation. If the modeling that was performed for this source, as discussed in Response 1 above, showed violations of the NAAQS standards, IDEM could investigate this issue further. However, the modeling done in this case did not show any violations of the NAAQS standards.

IDEM believes that the compliance monitoring requirements currently in the permit such as visible emissions notations of the baghouse stack and pressure drop monitoring of the baghouse are sufficient to ensure that the baghouse is operating properly and therefore, controlling emissions as required to comply with all applicable emission limitations. The pressure drop across a baghouse, in addition to visible emissions, is a key parameter in determining the performance of the baghouse. OAQ considers both upper and lower limits of pressure drops are important factors in determining whether the baghouse is operating properly. A pressure drop reading below the specifications would indicate the existence of holes or tears in the bag. A pressure drop higher than the upper limit would indicate the clogging or an excessive cake layer on the bags which may cause the malfunction of the control device and eventually lead to uncontrolled PM escaping from the emission points.

MAC Construction has agreed to pave the main haul road and all other traffic areas. The fugitive dust control plan included as Attachment A to the FESOP has been revised to require the Permittee to pave these roads. As noted in Response 3 above, the permit also requires that the Permittee perform PM and PM_{10} emissions testing. These tests shall be repeated at least once every five (5) years. These tests will indicate the actual level of emissions from the plant.

Comment 6:

What size is the motor on the fan for the baghouse? What is the decibel reading on the fan? Does the baghouse have rotary valves or air locks? Won't the baghouse make a lot of noise as it shoots air into the bags? What size is the baghouse? How many bags does it have? Won't the bags get holes in them?

Response to Comment 6:

MAC Construction is required to have a baghouse to control the particulate (PM and PM10) emissions from the dryer/burner. The permit does not specify, and IDEM does not have the authority to require, a specific motor size or other specification for the baghouse, only that the control device achieves a certain level of controlled outlet emissions.

MAC Construction is required to monitor the emissions from the baghouse and to monitor the pressure drop across the baghouse. These parameters provide a good indication of when a bag is torn and needs to be replaced. Condition D.1.21 requires MAC Construction to shut down the affected compartment of the baghouse immediately until the failed bags can be replaced.

Comment 7:

How do you know what is coming out of the baghouse? How often is the baghouse tested? If the test is not due for 180 days, couldn't the plant run out of compliance for six months before anyone would know?

Response to Comment 7:

To determine the actual level of emissions from the plant to determine whether the source is in compliance with the emission limitations in the permit, stack testing is required on the baghouse stack within 60 days after initial start-up but no later than 180 days after achieving the maximum production rate. Giving the source at least 60 days after initial start-up before requiring a test allows the new equipment to achieve operation at the maximum production rate so that the test will reflect worst-case emissions.

To verify that the baghouse test will be performed correctly, pursuant to 326 IAC 3-6-2, the source must complete a test protocol form and submit the form to the department not later than thirty-five (35) days prior to the intended test date unless more notice is required under the applicable program. Also, to verify that the test is performed correctly and that results are accurate, department staff observe field test procedures and source operation during the emission test. To ensure accurate representation of emissions under normal operating scenarios, IDEM requires, pursuant to 326 IAC 3-6-3, that all emission tests be conducted as follows:

(a) While the facility being tested is operating at ninety-five percent (95%) to one hundred percent (100%) of its permitted operating capacity.
(b) Under conditions representative of normal operations.
(c) Under other capacities or conditions specified and approved by the department, where capacity means the design capacity of the facility or other operating capacities agreed to by the source and IDEM.

If a test shows a violation, the source is required to correct the problem and retest to ensure that the problem has been corrected. Otherwise, these tests shall be repeated at least once every five (5) years.

Until the stack testing is performed, the compliance monitoring conditions in the permit will be used to ensure that the control equipment is operating properly at all times to achieve compliance with the permit limitations. If, during the 180 day period before stack testing must be performed, compliance monitoring indicates any issues or possible non-compliance, IDEM will take appropriate compliance and/or enforcement steps.

The requirement for visible emissions notations is intended to ensure compliance with the particulate matter requirements and that the baghouse for particulate control is operating correctly. This requirement is designed as a trigger that the source perform some corrective action on the facility if visible emissions are abnormal, to ensure continuous compliance with emission limitations. The observer shall be an employee of MAC who must be trained and able to determine whether the visible emissions are “normal” or “abnormal.” As the condition states, 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. This training does not need to include Method 9 Certification. Requiring the employee to be Method 9 certified would be resource intensive for the source, and would not provide much benefit because the purpose of specifying that a “trained employee” perform the visible emissions notations is to ensure that the employee would know the difference between “normal” and “abnormal” visible emissions from the particular process.

Comment 8:

I did not receive notice about this. Shouldn’t a notice be sent to everyone affected? When was the notice of this meeting published?

Response to Comment 8:

Indiana code, IC 13-15-3-1, requires IDEM to notify government officials when an application is received. IDEM notified the President of the Hendricks County Commissioners, the Jeffersonville City Council and the Office of the Mayor of Jeffersonville.

On October 7, 2005, the Office of Air Quality (OAQ) published a notice in the Evening News, Clark County, Indiana, stating that MAC Construction had applied for this permit. The notice also provided information on how the public could review the draft permit and other documentation at the local library. On November 15, 2005, the Office of Air Quality (OAQ) had a notice published in the in the Evening News, Clark County, Indiana, stating that the public hearing would be held on November 30th to receive comments from citizens regarding the draft permit.

Comment 9:

MAC Construction's draft permit allows it to operate 24 hours a day, 7 days a week. Can the permit limit the hours of operation?

Response to Comment 9:

The unrestricted potential emissions represent the worst case operational situation, which is, if the plant operated every hour of the year and used no pollution control equipment. Typically, asphalt plants do not operate 24 hours a day, 7 days a week. Most asphalt plants do not operate in the winter months, for example. The permit does require that MAC Construction operate the pollution control device at all times. The baghouse systems used at similar asphalt plants are very effective at removing particulate matter from the plant exhaust gas stream before the stream is released into the atmosphere.

Numerous other comments and concerns related a variety of issues, including odor, noise, blasting at the quarry, zoning, locating the plant at another site, effect on property values and quality of life issues were raised at the public hearing. OAQ recognizes that these concerns are important to those who expressed them; however, they do not have a direct impact on how the Office of Air Quality reviews and makes decisions on air permit applications. OAQ advises residents to contact their local officials regarding these issues. OAQ's permit review by law cannot address issues for which it does not have direct regulatory authority.

Upon further review, OAQ has decided to make the following changes to the FESOP. The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

Change 1:

IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request, records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM has deleted paragraph (b) of Section B – Preventive Maintenance, and has amended the Section B – Emergency Provisions condition as follows:

B.12 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

~~(b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.~~

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

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

B.13 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, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

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

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

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

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

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

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

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

Change 2:

IDEM has clarified the Section B Operational Flexibility condition as follows:

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

(a) The Permittee may make any change or changes at 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 2-8-11.1 has been obtained;

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

(4) The Permittee notifies the:

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

and

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

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

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

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

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

(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

Change 3:

IDEM realizes that instrument specifications can only be practically applied to analog units, and has therefore clarified condition C.14, now re-numbered C.13, to state that the condition only applies to analog units. Upon further review, IDEM has also determined that the accuracy of the instruments is not nearly as important as whether the instrument has a range that is appropriate for the normal expected reading of the parameter. Therefore, the accuracy requirements have been removed from the condition.

C.14**3** ~~Pressure Gauge and Other~~ Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

(a) ~~Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed~~ **When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device** shall have a scale such that the expected ~~normal~~ **maximum** reading **for the normal range** shall be no less than twenty percent (20%) of full scale ~~and be accurate within plus or minus two percent (±2%) of full scale reading~~.

~~(b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument 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 (" 2%) of full scale reading.~~

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

Change 4:

IDEM has reconsidered the requirement to develop and follow a Compliance Response Plan. The Permittee will still be required to take reasonable response steps when a compliance monitoring parameter is determined to be out of range or abnormal. Replacing the requirement to develop and follow a Compliance Response Plan with a requirement to take reasonable response steps will ensure that the control equipment is returned to proper operation as soon as practicable, while still allowing the Permittee the flexibility to respond to situations that were not anticipated. The Section D conditions that refer to this condition have been revised to reflect the new condition title, and the following changes have been made to the Section C condition:

C.17**6** ~~Compliance Response Plan - Preparation, Implementation, Records, and Reports~~ **Response to Excursions or Exceedances** [326 IAC 2-8-4] [326 IAC 2-8-5]

~~(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:~~

~~(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.~~

~~(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.~~

~~(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:~~

~~(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or~~

~~(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.~~

~~(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.~~

~~(4) Failure to take reasonable response steps shall be considered a deviation from the permit.~~

~~(c) The Permittee is not required to take any further response steps for any of the following reasons:~~

~~(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.~~

~~(2) The Permittee has determined that the compliance monitoring 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.~~

~~(3) An automatic measurement was taken when the process was not operating.~~

~~(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.~~

~~(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.~~

~~(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.~~

~~(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.~~

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

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;
(2) review of operation and maintenance procedures and records;

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

D.1.1~~7~~**9** Visible Emissions Notations

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

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

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

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

(e) ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.~~ **If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.**

D.1.1~~8~~**20** Parametric Monitoring

The Permittee shall record the ~~total static~~ pressure drop across the baghouse used in conjunction with the aggregate dryer, mixer, and burner, at least once daily when the aggregate dryer, mixer, and burner are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- ~~Compliance Response Plan – Preparation, Implementation, Records and Reports~~ **Response to Excursions or Exceedances**. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - ~~Compliance Response Plan - Preparation, Implementation, Records and Reports~~ **Response to Excursions or Exceedances** shall be considered a deviation from this permit.

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

Change 5:

Upon further review, IDEM has determined that it is the Permittee's responsibility to include routine control device inspection requirements in the applicable preventive maintenance plan. Since the Permittee is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control device should be inspected, the conditions requiring control device inspections have been removed from the permit. In addition, the requirement to keep records of the inspections has been removed.

~~D.1.19 Baghouse Inspections~~

~~An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer, mixer, and burner. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

D.1.2~~1~~**2** Record Keeping Requirements

(a) To document compliance with Conditions D.1.10 and D.1.11, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) below shall be complete and sufficient to establish compliance with the SO_2 and NOx emission limits established in conditions D.1.10 and D.1.11.

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

(2) Actual No. 6 fuel oil and No. 6 fuel oil equivalent usage per month since last compliance determination period and equivalent SO_2 emissions;

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

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

(4) Fuel supplier certifications.

(5) The name of the fuel supplier; and

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

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

(b) To document compliance with Condition D.1.12, the Permittee shall maintain records of the following:

(1) actual waste oil usage per month since the last compliance determination period and equivalent HCl emissions;

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

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

(3) Fuel supplier certifications.

(4) The name of the fuel supplier; and

(5) A statement from the fuel supplier that certifies the chloride content of the fuel oil.

~~(b)~~**(c)** The Permittee shall maintain records sufficient to verify compliance with the procedures specified in condition D.1.1~~5~~**6**. Records shall be maintained for a period of five (5) years and shall be made available upon request by IDEM, OAQ.

~~(c)~~**(d)** To document compliance with Condition D.1.1~~7~~**9**, the Permittee shall maintain records of daily visible emission notations of the aggregate dryer, mixer, and burner baghouse stack exhaust and the conveying, material transfer points, and screening.

~~(d)~~**(e)** To document compliance with Condition D.1.~~18~~**20**, the Permittee shall maintain daily records of the ~~total static~~ pressure drop during normal operation.

~~(e) To document compliance with Condition D.1.19, the Permittee shall maintain records of the results of the inspections required under Condition D.1.19.~~

~~(f) To document compliance with Condition D.1.13, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.~~

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

Change 6:

Paragraph (a) of the Broken or Failed Baghouse condition has been deleted. For multi-compartment baghouses, the permit will not specify what actions the Permittee needs to take in response to a broken bag. However, a requirement has been added to Condition D.1.16, now re-numbered D.1.17, requiring the Permittee to notify IDEM if a broken bag is detected and the control device will not be repaired for more than ten (10) days. This notification allows IDEM to take any appropriate actions if the emission unit will continue to operate for a long period of time while the control device is not operating in optimum condition.

A new paragraph (b) has been added to this condition for those processes that operate in batch mode. The condition required an emission unit to be shut down immediately in case of baghouse failure. However, IDEM is aware there can be safety issues with shutting down a process in the middle of a batch. IDEM also realizes that in some situations, shutting down an emissions unit mid-process can cause equipment damage. Therefore, since it is not always possible to shut down a process with material remaining in the equipment, IDEM has revised the condition to state that in the case of baghouse failure, the feed to the process must be shut off immediately, and the process shall be shut down as soon as practicable.

D.1.2~~0~~**1** Broken or Failed Bag Detection

~~In the event that bag failure has been observed:~~

~~(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.~~

~~(b)~~ **(a)** For **a** single compartment baghouse~~s~~ **controlling emissions from a process operated continuously**, ~~if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then~~ **a** failed unit~~s~~ and the associated process **shall** be shut down immediately until the failed unit~~s have~~ **has** been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

D.1.1~~6~~**7** Particulate Matter (PM)

(a) In order to comply with conditions D.1.5, D.1.6, D.1.7, D.1.8, and D.1.9, the baghouse for PM and PM10 control shall be in operation and control emissions at all times when the aggregate mixing and drying operation (Emission Unit ID ES1) is in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Change 7:

The condition now numbered as D.1.17(a) is the same requirement (to operate the control equipment at all times) that is in C.8 Operation of Equipment. IDEM has decided that it is best to have this requirement under compliance determination in the specific D conditions, and remove C.8.

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

~~Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.~~

Change 8:

Upon further review, IDEM has determined that the following condition does not need to be included in the permit, since it is regulated by other agencies.

~~D.1.23 Used Oil Requirements [326 IAC 13-8]~~

~~The waste oil burned in the 100 MMBtu per hour burner for the aggregate dryer shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:~~

~~(a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),~~
~~(b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and~~
~~(c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).~~

~~The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source.~~

Change 9:

The title of the person issuing this permit has been revised to reflect Mr. Dubenetzky's new title as follows:

Operation Permit No.: F019-21746-05282	
Issued by: Paul Dubenetzky, ~~Chief~~ **Assistant Commissioner** ~~Permits Branch~~ Office of Air Quality	Issuance Date: Expiration Date:

Appendix A of Addendum to the Technical Support Document

Appendix A: Emission Calculations Operation Permit No.- F019-21746 Plant I D 019-05282

Company Name: MAC Construction & Excavating, Inc.
Plant Location: 1415 Quarry Road, Jeffersonville, Indiana 47130
County: Clark
Permit Reviewer: Trish Earls

**** aggregate dryer burner****

The following calculations determine the amount of emissions created by the combustion of #4 fuel oil
@ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and
US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant: 100 MMBtu/hr * 8,760 hr/yr / 140,000 Btu/gal * 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	7.0	lb/1000 gal =	**21.90**	**ton/yr**
P M-10:	8.5	lb/1000 gal =	**26.59**	**ton/yr**
S O 2:	75.0	lb/1000 gal =	**234.64**	**ton/yr**
N O x:	47.0	lb/1000 gal =	**147.04**	**ton/yr**
V O C:	0.20	lb/1000 gal =	**0.63**	**ton/yr**
C O:	5.0	lb/1000 gal =	**15.64**	**ton/yr**

The following calculations determine the amount of emissions created by the combustion of #6 fuel oil
@ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and
US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant: 100 MMBtu/hr * 8,760 hr/yr / 140,000 Btu/gal * 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	7.8	lb/1000 gal =	**24.45**	**ton/yr**
P M-10:	9.3	lb/1000 gal =	**29.14**	**ton/yr**
S O 2:	78.5	lb/1000 gal =	**245.59**	**ton/yr**
N O x:	47.0	lb/1000 gal =	**147.04**	**ton/yr**
V O C:	0.28	lb/1000 gal =	**0.88**	**ton/yr**
C O:	5.0	lb/1000 gal =	**15.64**	**ton/yr**

The following calculations determine the amount of emissions created by the combustion of waste oil
@ 0.47 % sulfur, 0.500 % ash 0.114 % Cl, based on 8,760 hours of use and
US EPA's AP-42, 5th Edition, Section 1.11 - Waste Oil Combustion, Tables 1.11-1, 1.11-2, and 1.11-3.

Criteria Pollutant: 100 MMBtu/hr * 8760 hr/yr / 140,000 Btu/gal * 2000 lb/ton * Ef (lb/1000 gal) = (ton/yr)

P M:	32.0	lb/1000 gal =	**100.11**	**ton/yr**
P M-10:	25.5	lb/1000 gal =	**79.78**	**ton/yr**
S O 2:	69.1	lb/1000 gal =	**216.15**	**ton/yr**
N O x:	19.0	lb/1000 gal =	**59.44**	**ton/yr**
V O C:	1.0	lb/1000 gal =	**3.13**	**ton/yr**
C O:	5.0	lb/1000 gal =	**15.64**	**ton/yr**
HCL:	7.6	lb/1000 gal =	**23.62**	**ton/yr**

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

Criteria Pollutant:			**Worst Case Fuel**
P M:	**100.11**	**ton/yr**	Waste Oil
P M-10:	**79.78**	**ton/yr**	Waste Oil
S O 2:	**245.59**	**ton/yr**	No. 6 Fuel Oil
N O x:	**147.04**	**ton/yr**	No. 4 or No. 6 Fuel Oil
V O C:	**3.13**	**ton/yr**	Waste Oil
C O:	**15.64**	**ton/yr**	No. 4, No. 6 Oil or Waste Oil

Appendix A of Addendum to the Technical Support Document

MAC Construction & Excavating, Inc. — Operation Permit No. F019-21746
Jeffersonville, Indiana — Plant I D 019-05282

****hot oil heater****

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.50 % 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 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant: 1.2 MMBtu/hr * 8,760 hr/yr / 140,000 Btu/gal * 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	2.0	lb/1000 gal =	**0.08**	**ton/yr**
P M-10:	3.3	lb/1000 gal =	**0.12**	**ton/yr**
S O 2:	71.0	lb/1000 gal =	**2.67**	**ton/yr**
N O x:	20.0	lb/1000 gal =	**0.75**	**ton/yr**
V O C:	0.34	lb/1000 gal =	**0.01**	**ton/yr**
C O:	5.0	lb/1000 gal =	**0.19**	**ton/yr**

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

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-3 for a drum mix dryer which has the capability of combusting fuel oil:

Pollutant: Ef lb/ton x 400 / 2,000 ton/hr x 8,760 hr/yr

Criteria Pollutant:

P M:	28	lb/ton =	**49,056.00**	**ton/yr**
P M-10:	6.5	lb/ton =	**11,388.00**	**ton/yr**
VOC:	3.20E-02	lb/ton =	**56.06**	**ton/yr**
HCl:	2.10E-04	lb/ton =	**0.37**	**ton/yr**

The VOC emission factor for aggregate drying was obtained from U.S. EPA's AP-42, 5th Edition, Section 11.1, Table 11.1-8.

*** * conveying / handling * ***

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

PM-10 Emissions:

E = k*(0.0032)*(((U/5)^1.3)/((M/2)^1.4))
= 1.12E-03 lb PM-10/ton
2.37E-03 lb PM/ton

where k =	0.35	(particle size multiplier for <10um)
	0.74	(particle size multiplier for <30um)
U =	12	mph mean wind speed
M =	4.5	material moisture content (%)

400 / 2,000 ton/hr * 8,760 hrs/yr * Ef (lb/ton of material) = (ton/yr)

Total PM 10 Emissions: **1.97 tons/yr**
Total PM Emissions: **4.16 tons/yr**

Appendix A of Addendum to the Technical Support Document

MAC Construction & Excavating, Inc.
Jeffersonville, Indiana

Operation Permit No. F019-21746
Plant I D 019-05282

*** * paved roads * ***

The following calculations determine the amount of emissions created by vehicle traffic on paved roads, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 13.2.1.

I. Dump Trucks

25	trip/hr x	
0.13	mile/trip x	
2	(round trip) x	
8,760	hr/yr =	56940 miles per year

Ef = k*(sL/2)^0.65*(W/3)^1.5 - C
= 0.91 lb PM-10/mile
= 4.64 lb PM/mile

where k =	0.016	(particle size multiplier for PM-10) (k=0.082 for PM-30 or TSP)
sL =	8.2	road surface silt loading (g/m^2)
W =	24.0	tons average weight of all vehicles traveling the road
C =	0.00047	emission factor for 1980's vehicle exhaust, brake wear and tire wear for PM and PM10

PM-10: 0.91 lb/mi x 56940 mi/yr = **25.78 tons/yr**
2000 lb/ton

PM: 4.64 lb/mi x 56940 mi/yr = **132.16 tons/yr**
2000 lb/ton

Total PM Emissions From Paved Roads = 132.16 tons/yr

Total PM-10 Emissions From Paved Roads = 25.78 tons/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)	PM Emissions tons/yr	PM-10 Emisions tons/yr
Virg. Aggregate	7.1	0.300	0.45	0.16
RAP	7.1	0.100	0.15	0.05
Total			**0.60**	**0.21**

Sample Calculation:

Ef = 1.7*(s/1.5)*(365-p)/235*(f/15)
= 8.22 lb/acre/day

where s =	7.1	% 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

PM = 0.60 tons/yr **P M-10: 35% of PM = 0.21 tons/yr**

*** * load-out * ***

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

PM/PM10 Ef =	0.000181 + 0.00141(-V)e((0.0251)(T+460)-20.43)		
=	5.22E-04	lb PM or PM-10 per ton of asphalt mix produced	
where V =	-0.5	asphalt volatility (default value of -0.5 used per AP-42)	
T=	325	hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)	
PM/PM10 =	**0.91**	**tons/yr**	
Total PAH HAPs =	**0.04**	**tons/yr**	(5.93% of Organic PM emissions per AP-42)*
Phenol =	**0.01**	**tons/yr**	(1.18% of Organic PM emissions per AP-42)*

TOC Ef =	0.0172(-V)e((0.0251)(T+460)-20.43)		
=	4.16E-03	lb TOC per ton of asphalt mix produced	
where V =	-0.5	asphalt volatility (default value of -0.5 used per AP-42)	
T=	325	hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)	
VOC =	**6.85**	**tons/yr**	(94% of TOC emissions per AP-42)
Worst Case Single HAP (Xylenes) =	**0.04**	**tons/yr**	(0.49% of TOC emissions per AP-42)
Total Volatile HAPs =	**0.11**	**tons/yr**	(1.5% of TOC emissions per AP-42)

CO Ef =	0.00558(-V)e((0.0251)(T+460)-20.43)		
=	1.35E-03	lb CO per ton of asphalt mix produced	
where V =	-0.5	asphalt volatility (default value of -0.5 used per AP-42)	
T=	325	hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)	
CO =	**2.36**	**tons/yr**	

*** * silo filling * ***

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

PM/PM10 Ef =	0.000332 + 0.00105(-V)e((0.0251)(T+460)-20.43)		
=	5.86E-04	lb PM or PM-10 per ton of asphalt mix produced	
where V =	-0.5	asphalt volatility (default value of -0.5 used per AP-42)	
T=	325	hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)	
PM/PM10 =	**1.03**	**tons/yr**	
Total PAH HAPs =	**0.07**	**tons/yr**	(11.40% of Organic PM emissions per AP-42)*

TOC Ef =	0.0504(-V)e((0.0251)(T+460)-20.43)		
=	1.22E-02	lb TOC per ton of asphalt mix produced	
where V =	-0.5	asphalt volatility (default value of -0.5 used per AP-42)	
T=	325	hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)	
VOC =	**21.35**	**tons/yr**	(100% of TOC emissions per AP-42)
Worst Case Single HAP (Formaldehyde) =	**0.15**	**tons/yr**	(0.69% of TOC emissions per AP-42)
Total Volatile HAPs =	**0.28**	**tons/yr**	(1.3% of TOC emissions per AP-42)

CO Ef =	0.00488(-V)e((0.0251)(T+460)-20.43)		
=	1.18E-03	lb CO per ton of asphalt mix produced	
where V =	-0.5	asphalt volatility (default value of -0.5 used per AP-42)	
T=	325	hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)	
CO =	**2.07**	**tons/yr**	

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

Organic PM Ef =	0.00141(-V)e((0.0251)(T+460)-20.43)		
=	3.41E-04	lb PM or PM-10 per ton of asphalt mix produced	
where V =	-0.5	asphalt volatility (default value of -0.5 used per AP-42)	
T=	325	hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)	

Appendix A of Addendum to the Technical Support Document

MAC Construction & Excavating, Inc.
Jeffersonville, Indiana

Operation Permit No. F019-21746
Plant I D 019-05282

*** * summary of source emissions before controls * ***

Criteria Pollutants:

P M:	**49,295.05**	**ton/yr**
P M-10:	**11,497.80**	**ton/yr**
S O 2:	**248.26**	**ton/yr**
N O x:	**147.79**	**ton/yr**
V O C:	**87.41**	**ton/yr**
C O:	**20.26**	**ton/yr**
HCL:	**23.99**	**ton/yr**

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

In order to qualify for the FESOP program, this facility must limit PM-10, SO2, and NOx emissions to less than 100.0 tons per year. Consequently, SO2 emissions from the aggregate dryer are being limited to 97.23 tons per year (99.9 ton/yr - 2.67 ton/yr from the hot oil heater). NOx emissions from the aggregate dryer are being limited to 99.15 tons per year (99.9 tons/yr - 0.75 tons/yr from the hot oil heater).

* Emissions of PM and PM-10 from aggregate drying operations are controlled with a 99.960 % control efficiency.

The following calculations determine the amount of emissions created by No.4 fuel oil @ 0.50 % sulfur based on a fuel usage limitation of 2,592,800 gal/yr:

No. 4 Fuel Oil: 2,592,800 gal/yr / 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	7.0	lb/1000 gal =	**3.63E-03**	**ton/yr ***
P M-10:	8.5	lb/1000 gal =	**4.41E-03**	**ton/yr ***
S O 2:	75.0	lb/1000 gal =	**97.23**	**ton/yr**
N O x:	47.0	lb/1000 gal =	**60.93**	**ton/yr**
V O C:	0.2	lb/1000 gal =	**0.26**	**ton/yr**
C O:	5.0	lb/1000 gal =	**6.48**	**ton/yr**

The following calculations determine the amount of emissions created by No.6 fuel oil @ 0.50 % sulfur based on a fuel usage limitation of 2,477,197 gal/yr:

No. 6 Fuel Oil: 2,477,197 gal/yr / 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	7.8	lb/1000 gal =	**3.9E-03**	**ton/yr ***
P M-10:	9.3	lb/1000 gal =	**4.6E-03**	**ton/yr ***
S O 2:	78.5	lb/1000 gal =	**97.23**	**ton/yr**
N O x:	47.0	lb/1000 gal =	**58.21**	**ton/yr**
V O C:	0.3	lb/1000 gal =	**0.35**	**ton/yr**
C O:	5.0	lb/1000 gal =	**6.19**	**ton/yr**

The following calculations determine the amount of emissions created by waste oil @ 0.47 % sulfur based on a fuel usage limitation of 1,542,700 gal/yr:

Waste Oil: 1,542,700 gal/yr / 2000 lb/ton * Ef (lb/1000 gal) = (ton/yr)

P M:	32.0	lb/1000 gal =	**0.01**	**ton/yr ***
P M-10:	25.5	lb/1000 gal =	**0.01**	**ton/yr ***
S O 2:	69.1	lb/1000 gal =	**53.29**	**ton/yr**
N O x:	19.0	lb/1000 gal =	**14.66**	**ton/yr**
V O C:	1.0	lb/1000 gal =	**0.77**	**ton/yr**
C O:	5.0	lb/1000 gal =	**3.86**	**ton/yr**
HCL:	7.6	lb/1000 gal =	**5.82**	**ton/yr**

Criteria Pollutant:

			Worst Case Fuel
P M:	**0.01**	**ton/yr ***	Waste Oil
P M-10:	**0.01**	**ton/yr ***	Waste Oil
S O 2:	**97.23**	**ton/yr**	No. 4 or No. 6 Oil
N O x:	**60.93**	**ton/yr**	No. 4 Fuel Oil
V O C:	**0.77**	**ton/yr**	Waste Oil
C O:	**6.48**	**ton/yr**	No. 4 Fuel Oil
HCL:	**5.82**	**ton/yr**	Waste Oil

Appendix A of Addendum to the Technical Support Document

MAC Construction & Excavating, Inc.
Jeffersonville, Indiana

Operation Permit No. F019-21746
Plant I D 019-05282

Fuel Usage Limitations

Fuel Oil: No. 6 Fuel Oil

97.23	tons SO2/year limited	*	6257.14	Kgals	=	2477.20	Kgals
245.59	tons SO2/year potential			year potential			year limited

Fuel Oil: waste oil

97.23	tons SO2/year limited	*	6257.14	Kgals	=	2814.59	Kgals
216.15	tons SO2/year potential			year potential			year limited

5.824	tons HCL/year limited	*	6257.14	Kgals	=	1542.70	Kgals
23.62	tons HCL/year potential			year potential			year limited

Fuel Oil: No. 4 Fuel Oil

97.23	tons SO2/year limited	*	6257.14	Kgals	=	2592.80	Kgals
234.64	tons SO2/year potential			year potential			year limited

Fuel equivalence limit for waste oil based on SO2 emissions from No. 6 Fuel Oil

216.15	W.O. potential emissions (ton/yr)	/	245.59	#6 F.O. potential emissions (ton/yr)
6257.14	W.O. potential usage (kgal/yr)		6257.14	#6 F.O. potential usage (kgal/yr)

= 0.8801 Kgal #6 F.O. burned / Kgal W.O. burned

Fuel equivalence limit for #4 fuel oil based on SO2 emissions from #6 fuel oil

234.64	#4 F.O. potential emissions (ton/yr)	/	245.59	#6 F.O. potential emissions (ton/yr)
6257.14	#4 F.O. potential usage (kgal/yr)		6257.14	#6 F.O. potential usage (kgal/yr)

= 0.9554 Kgal #6 F.O. burned / Kgal #4 F.O. burned

Appendix A of Addendum to the Technical Support Document

MAC Construction & Excavating, Inc.
Jeffersonville, Indiana

Operation Permit No. F019-21746
Plant I D 019-05282

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

	hot oil heater:		nonfugitive				
P M:	0.08	ton/yr x	100.00%	emitted after controls =		**0.08**	**ton/yr**
P M-10:	0.12	ton/yr x	100.00%	emitted after controls =		**0.12**	**ton/yr**
	aggregate drying:		nonfugitive				
P M:	49,056.00	ton/yr x	0.04%	emitted after controls =		**19.62**	**ton/yr**
P M-10:	11,388.00	ton/yr x	0.04%	emitted after controls =		**4.56**	**ton/yr**
VOC:	56.06	ton/yr x	100.00%	emitted after controls =		**56.06**	**ton/yr**
HCl:	0.37	ton/yr x	100.00%	emitted after controls =		**0.37**	**ton/yr**
	conveying/handling:		fugitive				
P M:	4.16	ton/yr x	50%	emitted after controls =		**2.08**	**ton/yr**
P M-10:	1.97	ton/yr x	50%	emitted after controls =		**0.98**	**ton/yr**
	paved roads:		fugitive				
P M:	132.16	ton/yr x	50%	emitted after controls =		**66.08**	**ton/yr**
P M-10:	25.78	ton/yr x	50%	emitted after controls =		**12.89**	**ton/yr**
	storage piles:		fugitive				
P M:	0.60	ton/yr x	50%	emitted after controls =		**0.30**	**ton/yr**
P M-10:	0.21	ton/yr x	50%	emitted after controls =		**0.10**	**ton/yr**
	load-out & silo filling:		fugitive				
P M:	1.94	ton/yr x	100%	emitted after controls =		**1.94**	**ton/yr**
P M-10:	1.94	ton/yr x	100%	emitted after controls =		**1.94**	**ton/yr**
VOC:	28.20	ton/yr x	100%	emitted after controls =		**28.20**	**ton/yr**
CO:	4.43	ton/yr x	100%	emitted after controls =		**4.43**	**ton/yr**

*** * summary of source emissions after controls * ***

Criteria Pollutant:

	Non-Fugitive	**Fugitive**	**Total**
PM:	**19.71 ton/yr**	**70.40 ton/yr**	**90.11 ton/yr**
PM-10:	**4.69 ton/yr**	**15.92 ton/yr**	**20.61 ton/yr**
S O 2:	**99.90 ton/yr**	**0.00 ton/yr**	**99.90 ton/yr**
N O x:	**61.68 ton/yr**	**0.00 ton/yr**	**61.68 ton/yr**
V O C:	**56.85 ton/yr**	**28.20 ton/yr**	**85.05 ton/yr**
C O:	**6.67 ton/yr**	**4.43 ton/yr**	**11.10 ton/yr**
HCL:	**6.19 ton/yr**	**0.00 ton/yr**	**6.19 ton/yr**

Appendix A of Addendum to the Technical Support Document

MAC Construction & Excavating, Inc. — Operation Permit No. F019-21746
Jeffersonville, Indiana — Plant I D 019-05282

Hazardous Air Pollutants (HAPs)

**** aggregate dryer burner****

The following calculations determine the amount of HAP emissions created by the combustion of No. 6 fuel oil before & after controls @ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-11.

Hazardous Air Pollutants (HAPs):

100 MMBtu/hr * 8760 hr/yr * Ef (lb/10^12 Btu) = (ton/yr)
2,000 lb/ton

			Potential To Emit	Limited Emissions
Antimony:	5.25E-03	lb/1000 gal =	1.6E-02 ton/yr	6.57E-06 ton/yr
Arsenic:	1.32E-03	lb/1000 gal =	4.1E-03 ton/yr	1.65E-06 ton/yr
Beryllium:	2.78E-05	lb/1000 gal =	8.7E-05 ton/yr	3.48E-08 ton/yr
Cadmium:	3.98E-04	lb/1000 gal =	1.2E-03 ton/yr	4.98E-07 ton/yr
Chromium:	8.45E-04	lb/1000 gal =	2.6E-03 ton/yr	1.06E-06 ton/yr
Cobalt:	6.02E-03	lb/1000 gal =	1.9E-02 ton/yr	7.53E-06 ton/yr
Lead:	1.51E-03	lb/1000 gal =	4.7E-03 ton/yr	1.89E-06 ton/yr
Manganese:	3.00E-03	lb/1000 gal =	9.4E-03 ton/yr	3.75E-06 ton/yr
Mercury:	1.13E-04	lb/1000 gal =	3.5E-04 ton/yr	1.41E-07 ton/yr
Nickel:	8.45E-02	lb/1000 gal =	2.6E-01 ton/yr	1.06E-04 ton/yr
Selenium:	6.83E-04	lb/1000 gal =	2.1E-03 ton/yr	8.55E-07 ton/yr
		Total HAPs =	**0.31 ton/yr**	**1.23E-04 ton/yr**

The following calculations determine the amount of emissions created by waste oil combustion, from asphalt heating @ 0.0100 % lead, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.11 - Waste Oil Combustion, Tables 1.11-1, 1.11-2, and 1.11-3.

Hazardous Air Pollutants (HAPs):

100 MMBtu/hr * 8760 hr/yr * Ef (lb/1000 gal) = (ton/yr)
140,000 Btu/gal * 2000 lb/ton * 1000 gal/kgal

			Potential To Emit	Limited Emissions
Lead:	0.55	lb/1000 gal =	**1.72 ton/yr**	**6.88E-04 ton/yr**

*** * aggregate drying: drum-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 11.1-10 for a drum mix dryer which can be fired with fuel oil. The HAP emission factors represent the worst case emissions from both distillate fuel and waste-oil.

Pollutant:

Ef lb/ton x 400 ton/hr x 8760 hr/yr
2000 lb/ton

Hazardous Air Pollutants (HAPs):

			Potential To Emit	Limited Emissions
Acetaldehyde:	1.30E-03	lb/ton =	2.28 ton/yr	2.28 ton/yr
Acrolein:	2.60E-05	lb/ton =	0.05 ton/yr	0.05 ton/yr
Benzene:	3.90E-04	lb/ton =	0.68 ton/yr	0.68 ton/yr
Ethylbenzene:	2.40E-04	lb/ton =	0.42 ton/yr	0.42 ton/yr
Formaldehyde:	3.10E-03	lb/ton =	5.43 ton/yr	5.43 ton/yr
Hexane:	9.20E-04	lb/ton =	1.61 ton/yr	1.61 ton/yr
2,2,4 Trimethylpentane:	4.00E-05	lb/ton =	0.07 ton/yr	0.07 ton/yr
Methyl chloroform:	4.80E-05	lb/ton =	0.08 ton/yr	0.08 ton/yr
MEK:	2.00E-05	lb/ton =	0.04 ton/yr	0.04 ton/yr
Propionaldehyde:	1.30E-04	lb/ton =	0.23 ton/yr	0.23 ton/yr
Quinone:	1.60E-04	lb/ton =	0.28 ton/yr	0.28 ton/yr
Toluene:	2.90E-03	lb/ton =	5.08 ton/yr	5.08 ton/yr
Total PAH Haps:	8.80E-04	lb/ton =	1.54 ton/yr	1.54 ton/yr
Xylene:	2.00E-04	lb/ton =	0.35 ton/yr	0.35 ton/yr
		Total HAPs =	18.14 ton/yr	18.14 ton/yr

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MAC Construction & Excavating, Inc.
Jeffersonville, Indiana

Operation Permit No. F019-21746
Plant I D 019-05282

*** * summary of source HAP emissions potential to emit * ***

Hazardous Air Pollutants (HAPs):

Antimony:	**0.016**	ton/yr
Arsenic:	**0.004**	ton/yr
Acetaldehyde:	**2.278**	ton/yr
Acrolein:	**0.046**	ton/yr
Benzene:	**0.683**	ton/yr
Beryllium:	**0.000**	ton/yr
Cadmium:	**0.001**	ton/yr
Chromium:	**0.003**	ton/yr
Cobalt:	**0.019**	ton/yr
Ethylbenzene:	**0.420**	ton/yr
Formaldehyde:	**5.579**	ton/yr
Hexane:	**1.612**	ton/yr
2,2,4 Trimethylpentane:	**0.070**	ton/yr
Methyl chloroform:	**0.084**	ton/yr
MEK:	**0.035**	ton/yr
Propionaldehyde:	**0.228**	ton/yr
Quinone:	**0.280**	ton/yr
Lead:	**1.725**	ton/yr
Manganese:	**0.009**	ton/yr
Mercury:	**0.000**	ton/yr
Nickel:	**0.264**	ton/yr
Phenol:	**0.007**	ton/yr
Selenium:	**0.002**	ton/yr
Toluene:	**5.081**	ton/yr
Total PAH:	**1.645**	ton/yr
Xylene:	**0.386**	ton/yr
Hydrochloric Acid (HCL):	**23.990**	ton/yr
Other organic HAPs from load-out and silo filling:	**0.200**	ton/yr
Total:	**44.669**	**ton/yr**

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

Hazardous Air Pollutants (HAPs):

Antimony:	**6.6E-06**	ton/yr
Arsenic:	**1.7E-06**	ton/yr
Acetaldehyde:	**2.28**	ton/yr
Acrolein:	**4.6E-02**	ton/yr
Benzene:	**0.68**	ton/yr
Beryllium:	**3.5E-08**	ton/yr
Cadmium:	**5.0E-07**	ton/yr
Chromium:	**1.1E-06**	ton/yr
Cobalt:	**7.5E-06**	ton/yr
Ethylbenzene:	**0.420**	ton/yr
Formaldehyde:	**5.579**	ton/yr
Hexane:	**1.612**	ton/yr
2,2,4 Trimethylpentane:	**0.070**	ton/yr
Methyl chloroform:	**0.084**	ton/yr
MEK:	**0.035**	ton/yr
Propionaldehyde:	**0.228**	ton/yr
Quinone:	**0.280**	ton/yr
Lead:	**0.001**	ton/yr
Manganese:	**3.8E-06**	ton/yr
Mercury:	**1.4E-07**	ton/yr
Nickel:	**1.1E-04**	ton/yr
Phenol:	**7.0E-03**	ton/yr
Selenium:	**8.5E-07**	ton/yr
Toluene:	**5.08**	ton/yr
Total PAH:	**1.65**	ton/yr
Xylene:	**0.39**	ton/yr
Hydrochloric Acid (HCL):	**6.192**	ton/yr
Other organic HAPs from load-out and silo filling:	**0.200**	ton/yr
Total:	**24.827**	**ton/yr**

(total includes additional HAPs from load-out and silo filling not shown)

Appendix A of Addendum to the Technical Support Document

MAC Construction & Excavating, Inc. — Operation Permit No. F019-21746
Jeffersonville, Indiana — Plant I D 019-05282

*** * miscellaneous * ***

326 IAC 7 Compliance Calculations:

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

0.5 lb/MMBtu x 140,000 Btu/gal= 70 lb/1000gal

70 lb/1000gal / 142 lb/1000 gal = 0.5 %

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

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

1.6 lb/MMBtu x 140,000 Btu/gal= 224 lb/1000gal

224 lb/1000gal / 147 lb/1000 gal = 1.5 %

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

326 IAC 6-3-2 Compliance Calculations:

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

limit = 55 * (400 ^ 0.11) - 40 = 66.31 lb/hr or
290.45 ton/yr

Since the emission limits pursuant to 326 IAC 6.5-1-2 of 55.33 tons per year and Subpart I of 73.77 tons per year are more stringent than this limit, the limit pursuant to 326 IAC 6-3-2 does not apply. The emission limits pursuant to 326 IAC 6.5-1-2 and Subpart I shall also render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

PM-10 Emission Limit for Aggregate Dryer:

(99.0 tons PM-10/yr - 17.13 tons PM-10/yr from other souces)
= 81.87 tons PM-10/yr = 18.69 lbs/hr

PM-10 emissions from the aggregate dryer are controlled to 1.04 lbs/hr < 18.69 lbs/hr (Will comply)

Based on a maximum asphalt mix throughput of 400 tons/hr, this emission limit is equivalent to 0.047 lb PM10 per ton of asphalt mix.

40 CFR Part 60.90, Subpart I (Standards of Performance for Hot Mix Asphalt Plants) and 326 IAC 6.5-1-2(a) (formerly 326 IAC 6-1-2(a)) Compliance Calculations:

The following calculations determine compliance with 326 IAC 6.5-1-2 (for counties listed in 326 IAC 6.5-1-1(a)) and NSPS, which limits stack emissions from asphalt plants to 0.03 gr/dscf (when in counties listed in 326 IAC 6.5-1-1(a)), and 0.04 gr/dscf (when not located in those counties):

$$\frac{19.62 \text{ ton/yr} * 2000 \text{ lb/ton} * 7000 \text{ gr/lb}}{525{,}600 \text{ min/yr} * 49{,}123 \text{ dscf/min}} = 0.011 \text{ gr/dscf}$$ (will comply)

Allowable particulate emissions under NSPS equate to 73.77 tons per year. 16.84 lbs/hr
Allowable particulate emissions under 326 IAC 6.5-1-2 equate to 55.33 tons per year. 12.63 lbs/hr

Note:

SCFM = 68,194 acfm * (460 + 68)*(1-0.045) / (460 + 240)
= 49,123 scfm

Assumes exhaust gas temperature of 240F, exhaust gas moisture content of 4.5% and exhaust gas flow of 66,194 acfm.

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2		Acute Hazardous Air Pollutant Results										
3												
4												
5												
6				**Modeled**		**Acute**						
7				**24-hour**		**24-hour**			**Above**			
8				**Concentration**		**Minimum Risk Level (MRL)**			**MRL?**			
9		**Pollutant**		**(ug/m^3)**		**(ug/m^3)**			**(Yes/No)**			
10												
11		Formaldehyde		0.80991		49			No			
12		HCL		0.92094		None			None			
13		Toluene		0.75766		3700			No			
14												
15												
16												
17												
18												
19		Chronic Hazardous Air Pollutant Results										
20												
21												
22				**Modeled**		**Unit**						
23				**Annual**		**Risk**			**Reference**			
24				**Concentration**		**Factor (URF)**			**Concentration (RfC)**		**Cancer**	**Hazard**
25		**Pollutant**		**(ug/m^3)**		**[$(ug/m^3)^{-1}$]**			**(ug/m^3)**		**Risk**	**Quotient**
26												
27		Formaldehyde		0.04838		1.30E-05			9.8		6.29E-07	4.94E-03
28		HCL		0.05501		0			20		0	2.75E-03
29		Toluene		0.04526		0			400		0	1.13E-04
30												
31												
32												
33							**Maximum Individual Risk:**				6.29E-07	
34												
35												
36										**Hazard Index:**		7.80E-03

OFFICE OF AIR QUALITY

Minor Source Pilot Project Screening Form

Refer to the "Instructions for Minor Source Pilot Project Screening Form" for help in filling out this form.

General Permit Information

Permit Number: 019-21746-05282

Company Name: MAC Construction & Excavating, Inc

City: Jeffersonville

County: Clark

Permit Reviewer: Trish Earls/EVP

Source Specific Information

TABLE 1 - Criteria Pollutant Emission Rates (lb/hr)

Stack ID	CO	NO_X	PM_{10}	HAPS	SO_2	VOC	
EP1	1.48	13.91	18.69	5.55	22.2	12.97	**Maximum allow**
EP1	1.48	13.91	1.04	5.55	22.2	12.97	**Controlled emi**
EP2	0.04	0.17	0.03	0	0.61	0.002	
Totals:	***1.52***	***14.08***	***18.72***	***5.55***	***22.81***	***12.972***	**Maximum allow**
Totals:	***1.52***	***14.08***	***1.07***	***5.55***	***22.81***	***12.972***	**Controlled emi**

TABLE 2 - Hazardous Air Pollutant Emission Rates (lb/hr)

Stack ID	HCl	Toluene	Formaldehyde	HAP Name	HAP Name	HAP Name
EP1	1.41	1.16	1.24			
EP2	0	0	0			
0						
0						
0						
0						
0						
0						
Totals:	***1.41***	***1.16***	***1.24***	***0***	***0***	***0***

TABLE 3 - Stack Information: ***Closest building related to corresponding sta***

Stack ID	Stack Height (ft)	Flow Rate (acfm)	Stack Temp. (^oF)	Stack Diameter (ft)	Height (ft)	Width (ft)
EP1	30	66194	240	3.72	**16**	**11.5**
EP2	8.92		600	1		
0						
0						
0						
0						
0						
0						

Closest Property Line *(Distance in feet)*: **75**

OFFICE OF AIR QUALITY

Minor Source Pilot Project Screening Form

Refer to the "Instructions for Minor Source Pilot Project Screening Form" for help in filling out this form.

General Permit Information

Permit Number: **019-21746-05282**

Company Name: **MAC Construction & Excavating, Inc** **Model Used *(Please check one)*:**

City: **Jeffersonville** **___X__ SCREEN** **__X___ ISCST**

County: **Clark** **Date Modeling Completed:** 1/5/2006
1/17/2006

Permit Reviewer: Trish Earls/EVP **Modeler:** Krista Gremos

Modeling Results

TABLE 4 - Criteria Pollutants - Maximum Concentration (ug/m3):

Averaging Period	CO	NOX	PM10	Pb	SO2
1-hour modeled concentration	9.8				
NAAQ Standard	40000				
PASS or **FAIL**	**PASS**				
3-hour modeled concentration					132.53
NAAQ Standard					1300
PASS or **FAIL**					**PASS**
8-hour modeled concentration	6.87				
NAAQ Standard	10000				
PASS or **FAIL**	**PASS**				
24-hour modeled concentration			2.76		58.9
NAAQ Standard			150		365
PASS or **FAIL**			**PASS**		**PASS**
Quarterly modeled concentration				N/A	
NAAQ Standard				1.5	
PASS or **FAIL**					
Annual modeled concentration		7.27	0.55		11.78
NAAQ Standard		100	50		80
PASS or **FAIL**		**PASS**	**PASS**		**PASS**

Screen modeling

TABLE 5 - HAPs - Maximum Concentration (ug/m3):

Averaging Period	HCl	Toluene	Formaldehyde	HAP Name	HAP Name	HAP Name
24-hour modeled concentration	**0.92094**	**0.75766**	**0.80991**			
for RISK analysis						
Annual modeled concentration	**0.05501**	**0.04526**	**0.04838**			
for RISK analysis						

BEEST modeling **See RISK analysis results**

Company Name: MAC Construction & Excavating, Inc.
Plant Location: 1415 Quarry Road, Jeffersonville, Indiana 47130
County: Clark
Permit Reviewer: Trish Earls

**** aggregate dryer burner****

The following calculations determine the amount of emissions created by the combustion of #4 fuel oil
@ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and
US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant: 100 MMBtu/hr * 8,760 hr/yr / 140,000 Btu/gal * 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	7.0	lb/1000 gal =	**21.90**	**ton/yr**
P M-10:	8.5	lb/1000 gal =	**26.59**	**ton/yr**
S O 2:	75.0	lb/1000 gal =	**234.64**	**ton/yr**
N O x:	47.0	lb/1000 gal =	**147.04**	**ton/yr**
V O C:	0.20	lb/1000 gal =	**0.63**	**ton/yr**
C O:	5.0	lb/1000 gal =	**15.64**	**ton/yr**

The following calculations determine the amount of emissions created by the combustion of #6 fuel oil
@ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and
US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant: 100 MMBtu/hr * 8,760 hr/yr / 140,000 Btu/gal * 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	7.8	lb/1000 gal =	**24.45**	**ton/yr**
P M-10:	9.3	lb/1000 gal =	**29.14**	**ton/yr**
S O 2:	78.5	lb/1000 gal =	**245.59**	**ton/yr**
N O x:	47.0	lb/1000 gal =	**147.04**	**ton/yr**
V O C:	0.28	lb/1000 gal =	**0.88**	**ton/yr**
C O:	5.0	lb/1000 gal =	**15.64**	**ton/yr**

The following calculations determine the amount of emissions created by the combustion of waste oil
@ 0.47 % sulfur, 0.500 % ash 0.114 % Cl, based on 8,760 hours of use and
US EPA's AP-42, 5th Edition, Section 1.11 - Waste Oil Combustion, Tables 1.11-1, 1.11-2, and 1.11-3.

Criteria Pollutant: 100 MMBtu/hr * 8760 hr/yr / 140,000 Btu/gal * 2000 lb/ton * Ef (lb/1000 gal) = (ton/yr)

P M:	32.0	lb/1000 gal =	**100.11**	**ton/yr**
P M-10:	25.5	lb/1000 gal =	**79.78**	**ton/yr**
S O 2:	69.1	lb/1000 gal =	**216.15**	**ton/yr**
N O x:	19.0	lb/1000 gal =	**59.44**	**ton/yr**
V O C:	1.0	lb/1000 gal =	**3.13**	**ton/yr**
C O:	5.0	lb/1000 gal =	**15.64**	**ton/yr**
HCL:	7.6	lb/1000 gal =	**23.62**	**ton/yr**

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

Criteria Pollutant:			**Worst Case Fuel**
P M:	**100.11**	**ton/yr**	Waste Oil
P M-10:	**79.78**	**ton/yr**	Waste Oil
S O 2:	**245.59**	**ton/yr**	No. 6 Fuel Oil
N O x:	**147.04**	**ton/yr**	No. 4 or No. 6 Fuel Oil
V O C:	**3.13**	**ton/yr**	Waste Oil
C O:	**15.64**	**ton/yr**	No. 4, No. 6 Oil or Waste Oil

****hot oil heater****

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.50 % 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 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant: 1.2 MMBtu/hr * 8,760 hr/yr / 140,000 Btu/gal * 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	2.0	lb/1000 gal =	**0.08**	**ton/yr**
P M-10:	3.3	lb/1000 gal =	**0.12**	**ton/yr**
S O 2:	71.0	lb/1000 gal =	**2.67**	**ton/yr**
N O x:	20.0	lb/1000 gal =	**0.75**	**ton/yr**
V O C:	0.34	lb/1000 gal =	**0.01**	**ton/yr**
C O:	5.0	lb/1000 gal =	**0.19**	**ton/yr**

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

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-3 for a drum mix dryer which has the capability of combusting fuel oil:

Pollutant: Ef lb/ton x 400 / 2,000 lb/ton x 8,760 hr/yr

Criteria Pollutant:

P M:	28	lb/ton =	**49,056.00**	**ton/yr**
P M-10:	6.5	lb/ton =	**11,388.00**	**ton/yr**
VOC:	3.20E-02	lb/ton =	**56.06**	**ton/yr**
HCl:	2.10E-04	lb/ton =	**0.37**	**ton/yr**

The VOC emission factor for aggregate drying was obtained from U.S. EPA's AP-42, 5th Edition, Section 11.1, Table 11.1-8.

*** * conveying / handling * ***

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

PM-10 Emissions:

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

=	1.12E-03	lb PM-10/ton
	2.37E-03	lb PM/ton
where k =	0.35	(particle size multiplier for <10um)
	0.74	(particle size multiplier for <30um)
U =	12	mph mean wind speed
M =	4.5	material moisture content (%)

400 ton/hr * 8,760 hrs/yr * Ef (lb/ton of material) = (ton/yr)
2,000 lb/ton

Total PM 10 Emissions: **1.97** **tons/yr**
Total PM Emissions: **4.16** **tons/yr**

*** * paved roads * ***

The following calculations determine the amount of emissions created by vehicle traffic on paved roads, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 13.2.1.

I. Dump Trucks

25	trip/hr x	
0.13	mile/trip x	
2	(round trip) x	
8,760	hr/yr =	56940 miles per year

Ef = k*(sL/2)^0.65*(W/3)^1.5 - C

= 0.91 lb PM-10/mile

= 4.64 lb PM/mile

where k =	0.016	(particle size multiplier for PM-10)	(k=0.082 for PM-30 or TSP)
sL =	8.2	road surface silt loading (g/m^2)	
W =	24.0	tons average weight of all vehicles traveling the road	
C =	0.00047	emission factor for 1980's vehicle exhaust, brake wear and tire wear for PM and PM10	

PM-10: 0.91 lb/mi x 56940 mi/yr = 2000 lb/ton **25.78 tons/yr**

PM: 4.64 lb/mi x 56940 mi/yr = 2000 lb/ton **132.16 tons/yr**

Total PM Emissions From Paved Roads = 132.16 tons/yr

Total PM-10 Emissions From Paved Roads = 25.78 tons/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)	PM Emissions tons/yr	PM-10 Emisions tons/yr
Virg. Aggregate	7.1	0.300	0.45	0.16
RAP	7.1	0.100	0.15	0.05
Total			**0.60**	**0.21**

Sample Calculation:

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

= 8.22 lb/acre/day

where s =	7.1	% 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

PM = **0.60** **tons/yr** **P M-10:** **35% of PM =** **0.21** **tons/yr**

*** * load-out * ***

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

PM/PM10 Ef = 0.000181 + 0.00141(-V)e((0.0251)(T+460)-20.43)
= 5.22E-04 lb PM or PM-10 per ton of asphalt mix produced
where V = -0.5 asphalt volatility (default value of -0.5 used per AP-42)
T= 325 hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)

PM/PM10 = 0.91 tons/yr
Total PAH HAPs = 0.04 tons/yr (5.93% of Organic PM emissions per AP-42)*
Phenol = 0.01 tons/yr (1.18% of Organic PM emissions per AP-42)*

TOC Ef = 0.0172(-V)e((0.0251)(T+460)-20.43)
= 4.16E-03 lb TOC per ton of asphalt mix produced
where V = -0.5 asphalt volatility (default value of -0.5 used per AP-42)
T= 325 hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)

VOC = 6.85 tons/yr (94% of TOC emissions per AP-42)
Worst Case Single HAP (Xylenes) = 0.04 tons/yr (0.49% of TOC emissions per AP-42)
Total Volatile HAPs = 0.11 tons/yr (1.5% of TOC emissions per AP-42)

CO Ef = 0.00558(-V)e((0.0251)(T+460)-20.43)
= 1.35E-03 lb CO per ton of asphalt mix produced
where V = -0.5 asphalt volatility (default value of -0.5 used per AP-42)
T= 325 hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)

CO = 2.36 tons/yr

*** * silo filling * ***

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

PM/PM10 Ef = 0.000332 + 0.00105(-V)e((0.0251)(T+460)-20.43)
= 5.86E-04 lb PM or PM-10 per ton of asphalt mix produced
where V = -0.5 asphalt volatility (default value of -0.5 used per AP-42)
T= 325 hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)

PM/PM10 = 1.03 tons/yr
Total PAH HAPs = 0.07 tons/yr (11.40% of Organic PM emissions per AP-42)*

TOC Ef = 0.0504(-V)e((0.0251)(T+460)-20.43)
= 1.22E-02 lb TOC per ton of asphalt mix produced
where V = -0.5 asphalt volatility (default value of -0.5 used per AP-42)
T= 325 hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)

VOC = 21.35 tons/yr (100% of TOC emissions per AP-42)
Worst Case Single HAP (Formaldehyde) = 0.15 tons/yr (0.69% of TOC emissions per AP-42)
Total Volatile HAPs = 0.28 tons/yr (1.3% of TOC emissions per AP-42)

CO Ef = 0.00488(-V)e((0.0251)(T+460)-20.43)
= 1.18E-03 lb CO per ton of asphalt mix produced
where V = -0.5 asphalt volatility (default value of -0.5 used per AP-42)
T= 325 hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)

CO = 2.07 tons/yr

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

Organic PM Ef = 0.00141(-V)e((0.0251)(T+460)-20.43)
= 3.41E-04 lb PM or PM-10 per ton of asphalt mix produced
where V = -0.5 asphalt volatility (default value of -0.5 used per AP-42)
T= 325 hot mix asphalt (HMA) mix temperature in degrees F (default value of 325 used per AP-42)

*** * summary of source emissions before controls * ***

Criteria Pollutants:

P M:	**49,295.05**	**ton/yr**
P M-10:	**11,497.80**	**ton/yr**
S O 2:	**248.26**	**ton/yr**
N O x:	**147.79**	**ton/yr**
V O C:	**87.41**	**ton/yr**
C O:	**20.26**	**ton/yr**
HCL:	**23.99**	**ton/yr**

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

In order to qualify for the FESOP program, this facility must limit PM-10, SO2, and NOx emissions to less than 100.0 tons per year. Consequently, SO2 emissions from the aggregate dryer are being limited to 97.23 tons per year (99.9 ton/yr - 2.67 ton/yr from the hot oil heater). NOx emissions from the aggregate dryer are being limited to 99.15 tons per year (99.9 tons/yr - 0.75 tons/yr from the hot oil heater).

* Emissions of PM and PM-10 from aggregate drying operations are controlled with a 99.960 % control efficiency.

The following calculations determine the amount of emissions created by No.4 fuel oil @ 0.50 % sulfur based on a fuel usage limitation of 2,592,800 gal/yr:

No. 4 Fuel Oil: 2,592,800 gal/yr / 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	7.0	lb/1000 gal =	**3.63E-03**	**ton/yr ***
P M-10:	8.5	lb/1000 gal =	**4.41E-03**	**ton/yr ***
S O 2:	75.0	lb/1000 gal =	**97.23**	**ton/yr**
N O x:	47.0	lb/1000 gal =	**60.93**	**ton/yr**
V O C:	0.2	lb/1000 gal =	**0.26**	**ton/yr**
C O:	5.0	lb/1000 gal =	**6.48**	**ton/yr**

The following calculations determine the amount of emissions created by No.6 fuel oil @ 0.50 % sulfur based on a fuel usage limitation of 2,477,197 gal/yr:

No. 6 Fuel Oil: 2,477,197 gal/yr / 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	7.8	lb/1000 gal =	**3.9E-03**	**ton/yr ***
P M-10:	9.3	lb/1000 gal =	**4.6E-03**	**ton/yr ***
S O 2:	78.5	lb/1000 gal =	**97.23**	**ton/yr**
N O x:	47.0	lb/1000 gal =	**58.21**	**ton/yr**
V O C:	0.3	lb/1000 gal =	**0.35**	**ton/yr**
C O:	5.0	lb/1000 gal =	**6.19**	**ton/yr**

The following calculations determine the amount of emissions created by waste oil @ 0.47 % sulfur based on a fuel usage limitation of 1,542,700 gal/yr:

Waste Oil: 1,542,700 gal/yr / 2000 lb/ton * Ef (lb/1000 gal) = (ton/yr)

P M:	32.0	lb/1000 gal =	**0.01**	**ton/yr ***
P M-10:	25.5	lb/1000 gal =	**0.01**	**ton/yr ***
S O 2:	69.1	lb/1000 gal =	**53.29**	**ton/yr**
N O x:	19.0	lb/1000 gal =	**14.66**	**ton/yr**
V O C:	1.0	lb/1000 gal =	**0.77**	**ton/yr**
C O:	5.0	lb/1000 gal =	**3.86**	**ton/yr**
HCL:	7.6	lb/1000 gal =	**5.82**	**ton/yr**

Criteria Pollutant:

			Worst Case Fuel
P M:	**0.01**	**ton/yr ***	Waste Oil
P M-10:	**0.01**	**ton/yr ***	Waste Oil
S O 2:	**97.23**	**ton/yr**	No. 4 or No. 6 Oil
N O x:	**60.93**	**ton/yr**	No. 4 Fuel Oil
V O C:	**0.77**	**ton/yr**	Waste Oil
C O:	**6.48**	**ton/yr**	No. 4 Fuel Oil
HCL:	**5.82**	**ton/yr**	Waste Oil

Fuel Usage Limitations

Fuel Oil: No. 6 Fuel Oil

97.23 tons SO2/year limited / 245.59 tons SO2/year potential * 6257.14 Kgals / year potential = 2477.20 Kgals / year limited

Fuel Oil: waste oil

97.23 tons SO2/year limited / 216.15 tons SO2/year potential * 6257.14 Kgals / year potential = 2814.59 Kgals / year limited

5.824 tons HCL/year limited / 23.62 tons HCL/year potential * 6257.14 Kgals / year potential = 1542.70 Kgals / year limited

Fuel Oil: No. 4 Fuel Oil

97.23 tons SO2/year limited / 234.64 tons SO2/year potential * 6257.14 Kgals / year potential = 2592.80 Kgals / year limited

Fuel equivalence limit for waste oil based on SO2 emissions from No. 6 Fuel Oil

(216.15 W.O. potential emissions (ton/yr) / 6257.14 W.O. potential usage (kgal/yr)) / (245.59 #6 F.O. potential emissions (ton/yr) / 6257.14 #6 F.O. potential usage (kgal/yr))

= 0.8801 Kgal #6 F.O. burned / Kgal W.O. burned

Fuel equivalence limit for #4 fuel oil based on SO2 emissions from #6 fuel oil

(234.64 #4 F.O. potential emissions (ton/yr) / 6257.14 #4 F.O. potential usage (kgal/yr)) / (245.59 #6 F.O. potential emissions (ton/yr) / 6257.14 #6 F.O. potential usage (kgal/yr))

= 0.9554 Kgal #6 F.O. burned / Kgal #4 F.O. burned

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

	hot oil heater:			nonfugitive			
P M:	0.08	ton/yr x	100.00%	emitted after controls =	**0.08**	**ton/yr**
P M-10:	0.12	ton/yr x	100.00%	emitted after controls =	**0.12**	**ton/yr**
	aggregate drying:			nonfugitive			
P M:	49,056.00	ton/yr x	0.04%	emitted after controls =	**19.62**	**ton/yr**
P M-10:	11,388.00	ton/yr x	0.04%	emitted after controls =	**4.56**	**ton/yr**
VOC:	56.06	ton/yr x	100.00%	emitted after controls =	**56.06**	**ton/yr**
HCl:	0.37	ton/yr x	100.00%	emitted after controls =	**0.37**	**ton/yr**
	conveying/handling:			fugitive			
P M:	4.16	ton/yr x	50%	emitted after controls =	**2.08**	**ton/yr**
P M-10:	1.97	ton/yr x	50%	emitted after controls =	**0.98**	**ton/yr**
	paved roads:			fugitive			
P M:	132.16	ton/yr x	50%	emitted after controls =	**66.08**	**ton/yr**
P M-10:	25.78	ton/yr x	50%	emitted after controls =	**12.89**	**ton/yr**
	storage piles:			fugitive			
P M:	0.60	ton/yr x	50%	emitted after controls =	**0.30**	**ton/yr**
P M-10:	0.21	ton/yr x	50%	emitted after controls =	**0.10**	**ton/yr**
	load-out & silo filling:			fugitive			
P M:	1.94	ton/yr x	100%	emitted after controls =	**1.94**	**ton/yr**
P M-10:	1.94	ton/yr x	100%	emitted after controls =	**1.94**	**ton/yr**
VOC:	28.20	ton/yr x	100%	emitted after controls =	**28.20**	**ton/yr**
CO:	4.43	ton/yr x	100%	emitted after controls =	**4.43**	**ton/yr**

*** * summary of source emissions after controls * ***

Criteria Pollutant:

	Non-Fugitive	**Fugitive**	**Total**
PM:	**19.71 ton/yr**	**70.40 ton/yr**	**90.11 ton/yr**
PM-10:	**4.69 ton/yr**	**15.92 ton/yr**	**20.61 ton/yr**
S O 2:	**99.90 ton/yr**	**0.00 ton/yr**	**99.90 ton/yr**
N O x:	**61.68 ton/yr**	**0.00 ton/yr**	**61.68 ton/yr**
V O C:	**56.85 ton/yr**	**28.20 ton/yr**	**85.05 ton/yr**
C O:	**6.67 ton/yr**	**4.43 ton/yr**	**11.10 ton/yr**
HCL:	**6.19 ton/yr**	**0.00 ton/yr**	**6.19 ton/yr**

Hazardous Air Pollutants (HAPs)

**** aggregate dryer burner****

The following calculations determine the amount of HAP emissions created by the combustion of No. 6 fuel oil before & after controls @ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-11.

Hazardous Air Pollutants (HAPs):

100 MMBtu/hr * 8760 hr/yr * Ef (lb/10^12 Btu) = (ton/yr)
2,000 lb/ton

			Potential To Emit	Limited Emissions
Antimony:	5.25E-03	lb/1000 gal =	1.6E-02 ton/yr	6.57E-06 ton/yr
Arsenic:	1.32E-03	lb/1000 gal =	4.1E-03 ton/yr	1.65E-06 ton/yr
Beryllium:	2.78E-05	lb/1000 gal =	8.7E-05 ton/yr	3.48E-08 ton/yr
Cadmium:	3.98E-04	lb/1000 gal =	1.2E-03 ton/yr	4.98E-07 ton/yr
Chromium:	8.45E-04	lb/1000 gal =	2.6E-03 ton/yr	1.06E-06 ton/yr
Cobalt:	6.02E-03	lb/1000 gal =	1.9E-02 ton/yr	7.53E-06 ton/yr
Lead:	1.51E-03	lb/1000 gal =	4.7E-03 ton/yr	1.89E-06 ton/yr
Manganese:	3.00E-03	lb/1000 gal =	9.4E-03 ton/yr	3.75E-06 ton/yr
Mercury:	1.13E-04	lb/1000 gal =	3.5E-04 ton/yr	1.41E-07 ton/yr
Nickel:	8.45E-02	lb/1000 gal =	2.6E-01 ton/yr	1.06E-04 ton/yr
Selenium:	6.83E-04	lb/1000 gal =	2.1E-03 ton/yr	8.55E-07 ton/yr
		Total HAPs =	**0.31 ton/yr**	**1.23E-04 ton/yr**

The following calculations determine the amount of emissions created by waste oil combustion, from asphalt heating @ 0.0100 % lead, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.11 - Waste Oil Combustion, Tables 1.11-1, 1.11-2, and 1.11-3.

Hazardous Air Pollutants (HAPs):

100 MMBtu/hr * 8760 hr/yr * Ef (lb/1000 gal) = (ton/yr)
140,000 Btu/gal * 2000 lb/ton * 1000 gal/kgal

			Potential To Emit	Limited Emissions
Lead:	0.55	lb/1000 gal =	**1.72 ton/yr**	**6.88E-04 ton/yr**

*** * aggregate drying: drum-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 11.1-10 for a drum mix dryer which can be fired with fuel oil. The HAP emission factors represent the worst case emissions from both distillate fuel and waste-oil.

Pollutant:

Ef lb/ton x 400 ton/hr x 8760 hr/yr
2000 lb/ton

Hazardous Air Pollutants (HAPs):

			Potential To Emit	Limited Emissions
Acetaldehyde:	1.30E-03	lb/ton =	2.28 ton/yr	2.28 ton/yr
Acrolein:	2.60E-05	lb/ton =	0.05 ton/yr	0.05 ton/yr
Benzene:	3.90E-04	lb/ton =	0.68 ton/yr	0.68 ton/yr
Ethylbenzene:	2.40E-04	lb/ton =	0.42 ton/yr	0.42 ton/yr
Formaldehyde:	3.10E-03	lb/ton =	5.43 ton/yr	5.43 ton/yr
Hexane:	9.20E-04	lb/ton =	1.61 ton/yr	1.61 ton/yr
2,2,4 Trimethylpentane:	4.00E-05	lb/ton =	0.07 ton/yr	0.07 ton/yr
Methyl chloroform:	4.80E-05	lb/ton =	0.08 ton/yr	0.08 ton/yr
MEK:	2.00E-05	lb/ton =	0.04 ton/yr	0.04 ton/yr
Propionaldehyde:	1.30E-04	lb/ton =	0.23 ton/yr	0.23 ton/yr
Quinone:	1.60E-04	lb/ton =	0.28 ton/yr	0.28 ton/yr
Toluene:	2.90E-03	lb/ton =	5.08 ton/yr	5.08 ton/yr
Total PAH Haps:	8.80E-04	lb/ton =	1.54 ton/yr	1.54 ton/yr
Xylene:	2.00E-04	lb/ton =	0.35 ton/yr	0.35 ton/yr
		Total HAPs =	18.14 ton/yr	18.14 ton/yr

*** * summary of source HAP emissions potential to emit * ***

Hazardous Air Pollutants (HAPs):

Antimony:	**0.016**	ton/yr
Arsenic:	**0.004**	ton/yr
Acetaldehyde:	**2.278**	ton/yr
Acrolein:	**0.046**	ton/yr
Benzene:	**0.683**	ton/yr
Beryllium:	**0.000**	ton/yr
Cadmium:	**0.001**	ton/yr
Chromium:	**0.003**	ton/yr
Cobalt:	**0.019**	ton/yr
Ethylbenzene:	**0.420**	ton/yr
Formaldehyde:	**5.579**	ton/yr
Hexane:	**1.612**	ton/yr
2,2,4 Trimethylpentane:	**0.070**	ton/yr
Methyl chloroform:	**0.084**	ton/yr
MEK:	**0.035**	ton/yr
Propionaldehyde:	**0.228**	ton/yr
Quinone:	**0.280**	ton/yr
Lead:	**1.725**	ton/yr
Manganese:	**0.009**	ton/yr
Mercury:	**0.000**	ton/yr
Nickel:	**0.264**	ton/yr
Phenol:	**0.007**	ton/yr
Selenium:	**0.002**	ton/yr
Toluene:	**5.081**	ton/yr
Total PAH:	**1.645**	ton/yr
Xylene:	**0.386**	ton/yr
Hydrochloric Acid (HCL):	**23.990**	ton/yr
Other organic HAPs from load-out and silo filling:	**0.200**	ton/yr
Total:	**44.669**	**ton/yr**

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

Hazardous Air Pollutants (HAPs):

Antimony:	**6.6E-06**	ton/yr
Arsenic:	**1.7E-06**	ton/yr
Acetaldehyde:	**2.28**	ton/yr
Acrolein:	**4.6E-02**	ton/yr
Benzene:	**0.68**	ton/yr
Beryllium:	**3.5E-08**	ton/yr
Cadmium:	**5.0E-07**	ton/yr
Chromium:	**1.1E-06**	ton/yr
Cobalt:	**7.5E-06**	ton/yr
Ethylbenzene:	**0.420**	ton/yr
Formaldehyde:	**5.579**	ton/yr
Hexane:	**1.612**	ton/yr
2,2,4 Trimethylpentane:	**0.070**	ton/yr
Methyl chloroform:	**0.084**	ton/yr
MEK:	**0.035**	ton/yr
Propionaldehyde:	**0.228**	ton/yr
Quinone:	**0.280**	ton/yr
Lead:	**0.001**	ton/yr
Manganese:	**3.8E-06**	ton/yr
Mercury:	**1.4E-07**	ton/yr
Nickel:	**1.1E-04**	ton/yr
Phenol:	**7.0E-03**	ton/yr
Selenium:	**8.5E-07**	ton/yr
Toluene:	**5.08**	ton/yr
Total PAH:	**1.65**	ton/yr
Xylene:	**0.39**	ton/yr
Hydrochloric Acid (HCL):	**6.192**	ton/yr
Other organic HAPs from load-out and silo filling:	**0.200**	ton/yr
Total:	**24.827**	**ton/yr**

(total includes additional HAPs from load-out and silo filling not shown)

*** * miscellaneous * ***

326 IAC 7 Compliance Calculations:

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

0.5 lb/MMBtu x 140,000 Btu/gal= 70 lb/1000gal

70 lb/1000gal / 142 lb/1000 gal = 0.5 %

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

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

1.6 lb/MMBtu x 140,000 Btu/gal= 224 lb/1000gal

224 lb/1000gal / 147 lb/1000 gal = 1.5 %

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

326 IAC 6-3-2 Compliance Calculations:

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

limit = 55 * (400 ^ 0.11) - 40 = 66.31 lb/hr or
290.45 ton/yr

Since the emission limits pursuant to 326 IAC 6.5-1-2 of 55.33 tons per year and Subpart I of 73.77 tons per year are more stringent than this limit, the limit pursuant to 326 IAC 6-3-2 does not apply. The emission limits pursuant to 326 IAC 6.5-1-2 and Subpart I shall also render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

PM-10 Emission Limit for Aggregate Dryer:

(99.0 tons PM-10/yr - 17.13 tons PM-10/yr from other souces)
= 81.87 tons PM-10/yr = 18.69 lbs/hr

PM-10 emissions from the aggregate dryer are controlled to 1.04 lbs/hr < 18.69 lbs/hr (Will comply)

Based on a maximum asphalt mix throughput of 400 tons/hr, this emission limit is equivalent to 0.047 lb PM10 per ton of asphalt mix.

40 CFR Part 60.90, Subpart I (Standards of Performance for Hot Mix Asphalt Plants) and 326 IAC 6.5-1-2(a) (formerly 326 IAC 6-1-2(a)) Compliance Calculations:

The following calculations determine compliance with 326 IAC 6.5-1-2 (for counties listed in 326 IAC 6.5-1-1(a)) and NSPS, which limits stack emissions from asphalt plants to 0.03 gr/dscf (when in counties listed in 326 IAC 6.5-1-1(a)), and 0.04 gr/dscf (when not located in those counties):

$$\frac{19.62 \text{ ton/yr} * 2000 \text{ lb/ton} * 7000 \text{ gr/lb}}{525{,}600 \text{ min/yr} * 49{,}123 \text{ dscf/min}} = 0.011 \text{ gr/dscf}$$ (will comply)

Allowable particulate emissions under NSPS equate to 73.77 tons per year. 16.84 lbs/hr
Allowable particulate emissions under 326 IAC 6.5-1-2 equate to 55.33 tons per year. 12.63 lbs/hr

Note:

SCFM = 68,194 acfm * (460 + 68)*(1-0.045) / (460 + 240)
= 49,123 scfm

Assumes exhaust gas temperature of 240F, exhaust gas moisture content of 4.5% and exhaust gas flow of 66,194 acfm.