



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
MC 61-53
(317) 232-8603
(800) 451-6027
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TO: Interested Parties / Applicant
DATE: March 14, 2008
RE: Rogers Group - Bloomington Asphalt / 105-25414-00045
FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot12/03/07



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

Mitchell E. Daniels, Jr.
Governor

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Commissioner

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Van Medlock
Rogers Group, Inc. - Bloomington Asphalt
1100 N. Oard Road,
Bloomington, IN 47404

March 14, 2008

Re: F105-25414-00045
First Significant Permit Revision to
FESOP No. F105-23908-00045

Dear Mr. Medlock:

On October 17, 2007, the Office of Air Quality (OAQ) received an application from the source relating to the replacement of aging equipment in the existing stationary batch mix asphalt plant with new stationary drum hot-mix asphalt plant equipment, including one (1) aggregate rotary dryer and hot-mix drum mixer unit equipped with one (1) cyclone and one (1) jet pulse baghouse for particulate matter control, four (4) liquid asphalt storage tanks, two (2) fuel oil storage tanks, seven (7) storage silos, twelve (12) cold aggregate feed bins, two storage bins for recycled asphalt, and miscellaneous feeding, conveying, and loading operations, and paved and unpaved roads. The new stationary drum hot-mix asphalt plant equipment will not cause the source's potential to emit to be greater than the threshold levels specified in 326 IAC 2-2 or 326 IAC 2-7, since the entire source (including the new hot-mix asphalt plant) will continue to be limited to less than the Part 70 and/or PSD major source threshold levels, respectively. Additionally, the source has requested that the permit term for their recent renewal be extended to ten (10) years. These changes to the permit, F105-23908-00045, issued on December 7, 2007, are considered a change by Significant Permit Revision (SPR) pursuant to 326 IAC 2-8-11.1(f)(1)(E) and 326 IAC 2-8-11.1(g)(2), and is hereby approved as described in the attached Technical Support Document (TSD).

The following conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval 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.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

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

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Hannah Desrosiers, of my staff, at 317-234-5374 or 1-800-451-6027, and ask for extension 4-5374.

Sincerely/Original Signed By:

Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Attachments
MS/hld

cc: File – Monroe County
Monroe County Health Department
Air Compliance Section Inspector – Dave Rice
Compliance Data Section
Permits Administrative and Development
Technical Support and Modeling
Billing, Licensing, and Training Section - Dan Stamatkin
US EPA Region 5



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Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

**Rogers Group, Inc. - Bloomington Asphalt
110 N. Oard Road
Bloomington, Indiana 47404**

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

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

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

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

Operation Permit No.: F 105-23908-00045	
Original issued by: Matthew Stuckey, Deputy Branch Chief Permits Branch Office of Air Quality	Issuance Date: December 7, 2007 Expiration Date: December 7, 2017

First Significant Permit Revision No.: F 105-25414-00045	
Issued by/Original Signed By: Matthew Stuckey, Deputy Branch Chief Permits Branch Office of Air Quality	Issuance Date: March 14, 2008 Expiration Date: December 7, 2017

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SECTION A

SOURCE SUMMARY

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

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

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

Source Address:	110 N. Oard Road, Bloomington, Indiana 47404
Mailing Address:	P.O. Box 25250, Nashville, Tennessee 37202
General Source Phone Number:	(812) 333-8550
SIC Code:	2951
County Location:	Monroe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act Not 1 in 28 Source Categories

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

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

- (a) One (1) recycled asphalt pavement (RAP) system, identified as RC1, consisting of a RAP breaker, screen and conveyors, capacity: 50 tons per hour.

Under NSPS Subpart OOO, this is an affected facility (i.e. crushers and grinding mills) at hot mix asphalt facility that reduces the size of nonmetallic minerals embedded in recycled asphalt pavement.

- (b) One (1) aggregate rotary dryer and drum hot-mix unit, approved for construction in 2008, identified as Unit 01, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil, with a maximum heat input capacity: 175 million British thermal units per hour, and a maximum throughput capacity of 450 tons per hour of asphalt, equipped with one (1) cyclone (identified as CE1) and one (1) jet pulse baghouse (identified as CE2) for particulate matter control, and exhausting through stack S1.

Under NSPS subpart I, this is considered an affected hot mix asphalt facility.

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

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

- (a) Natural gas/fuel fired combustion source (One (1) oil heater burner) with heat input equal to or less than ten million (10,000,000) Btu per hour, capacity: 2.00 million British thermal units per hour.
- (b) A petroleum fuel, other than gasoline, dispensing facility, identified as FT1, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment; and

- (d) Two (2) 25,000 gallon self contained liquid asphalt storage tanks , identified as LAC1 and LAC2, approved for construction in 2008;
- (e) One (1) 30,000 gallon self contained liquid asphalt storage tank, identified as LAC3, approved for construction in 2008;
- (f) One (1) 35,000 gallon self contained liquid asphalt storage tank, identified as LAC4, approved for construction in 2008;
- (g) One (1) 22,000 gallon #4 fuel oil self contained storage tank, identified as FT2, approved for construction in 2008;
- (h) One (1) 30,000 gallon #4 fuel oil self contained storage tank, identified as FT3, approved for construction in 2008;
- (i) One (1) 750 BBL (1BBL equals 42 US gallons) Mineral Fill Silo, identified as MS1, approved for construction in 2008;
- (j) Six (6) 300 ton hot-mix silos, identified as S1 through S6, approved for construction in 2008;
- (k) Twelve (12) 30 ton Cold Feed Bins, identified as B1 through B12, approved for construction in 2008;
- (l) Two (2) 30 ton Recycle Bins for RAP storage, identified as RB1 and RB2, approved for construction in 2008;
- (m) Feeding, conveying, and loading operations, processing a maximum of 450 tons per hour, consisting of;
 - (1) one (1) collecting conveyor, approved for construction in 2008;
 - (2) one (1) transfer conveyor, approved for construction in 2008;
- (n) Paved and unpaved roads with limited public access. [326 IAC 6-4]

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

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

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, F 105-23908-00045, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865
 - (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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

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

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

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

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

- (a) All terms and conditions of permits established prior to F 105-23908-00045 and issued pursuant to permitting programs approved into the state implementation plan have been either:

- (1) incorporated as originally stated,
- (2) revised, or
- (3) deleted.

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

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

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

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

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

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

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

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

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

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

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

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-

7-2 or if IDEM, OAQ determines any of the following:

- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

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

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

Request for renewal shall be submitted to:

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

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

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

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

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

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

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

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

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

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

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

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

and

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

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

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

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

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

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

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

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

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2] [IC 13-17-3-2] [IC13-30-3-1]

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

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

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

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

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

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

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

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

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

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

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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)) not applicable;
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

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

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

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

C.3 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

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

- (a) Cleaning paved roads and parking lots by sweeping on an as needed basis (monthly minimum). Power brooming paved roads and parking lots while wet.
- (b) Paving unpaved roads and parking lots with asphalt. Treating with emulsified asphalt as needed. Treating with water as needed. Double chip and seal the road surface and maintain on an as needed basis.
- (c) Maintain minimum size and number of stock piles of aggregate. Treat around the stockpile with emulsified asphalt on an as needed basis. Treat around the stockpile with water as needed. Treat the stockpiles with water as needed.
- (d) Apply water at the feed and the intermediate points of the conveyers as needed.
- (e) Minimize the vehicular distance between transfer points of aggregates. Enclose the transfer points. Apply water to the transfer points on an as needed basis.
- (f) Tarp aggregate hauling vehicles. Maintain vehicle bodies to prevent leakage. Spray aggregates with water during transport. Maintain a 10 mile per hour speed limit in the yard.
- (g) Reduce free fall distance during loading and unloading. Reduce the rate of discharge of the aggregate. Spray the aggregate with water on an as needed basis.

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

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least two hundred sixty (260) linear feet on pipes or one hundred sixty (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
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

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

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

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

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

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

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

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

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

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

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on November 17, 2006.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

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

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

- (1) monitoring results;
 - (2) review of operation and maintenance procedures and records;
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
- (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

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

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

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

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

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

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

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

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

"authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

Stratospheric Ozone Protection

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

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Hot-Mix Asphalt Plant

- (a) One (1) recycled asphalt pavement (RAP) system, identified as RC1, consisting of a RAP breaker, screen and conveyors, capacity: 50 tons per hour.

Under NSPS Subpart OOO, this is an affected facility (i.e. crushers and grinding mills) at hot mix asphalt facility that reduces the size of nonmetallic minerals embedded in recycled asphalt pavement.

- (b) One (1) aggregate rotary dryer and drum hot-mix unit, approved for construction in 2008, identified as Unit 01, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil, with a maximum heat input capacity: 175 million British thermal units per hour, and a maximum throughput capacity of 450 tons per hour of asphalt, equipped with one (1) cyclone (identified as CE1) and one (1) jet pulse baghouse (identified as CE2) for particulate matter control, and exhausting through stack S1.

Under NSPS subpart I, this is considered an affected hot mix asphalt facility.

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

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

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

The potential to emit PM from the aggregate dryer/mixer shall be less than 0.380 pounds per ton of asphalt processed, and the amount of asphalt processed shall not exceed 950,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limitations, combined with the limits and emissions from other emission units at this source, will satisfy 326 IAC 2-8-4 (FESOP), and will render 326 IAC 2-7, Part 70, and 326 IAC 2-2, PSD, not applicable.

D.1.2 Particulate (PM₁₀), Carbon Monoxide (CO) and Volatile Organic Compound (VOC) Limitations [326 IAC 2-8-4] [326 IAC 2-2]

- (a) Pursuant to 326 IAC 2-8-4, the amount of asphalt processed shall not exceed 950,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

- (b) The potential to emit PM₁₀ from the aggregate dryer/mixer shall be less than 0.160 pounds per ton of asphalt processed.

- (c) The potential to emit CO from the aggregate dryer/mixer shall be less than 0.195 pounds per ton of asphalt processed.

- (d) The potential to emit VOC from the aggregate dryer/mixer shall be less than 0.200 pounds per ton of asphalt processed.

Compliance with these limitations, combined with the limits and emissions from other emission units at this source, will satisfy 326 IAC 2-8-4 (FESOP), and will render 326 IAC 2-7, Part 70, and 326 IAC 2-2, PSD, not applicable.

D.1.3 Sulfur Dioxide (SO₂) [326 IAC 2-8-4] [326 IAC 7-1.1-1] [326 IAC 7-2-1]

- (a) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions

from the 175 million Btu per hour burner for the aggregate dryer/mixer shall be limited to one-half (0.5) pounds per million Btu heat input or a sulfur content of less than or equal to one-half percent (0.5%) by weight when using distillate oil (including No. 2 fuel oil, No. 4 fuel oil, and diesel fuel oil).

- (b) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 175 million Btu per hour burner for the aggregate dryer/mixer shall be limited to one and six-tenths (1.6) pounds per million Btu heat input or a sulfur content of less than or equal to one and five-tenths percent (1.5 %) by weight when using re-refined waste oil. The source has accepted a sulfur content limit of one percent (1.0%) for residual oil (including No. 5 fuel oil, No. 6 fuel oil, and used/ re-refined waste oil).
- (c) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.1.4 Sulfur Dioxide (SO₂) Emissions [326 IAC 2-8-4] [326 IAC 2-2]

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

- (a) The usage of No. 4 fuel oil in the 175 MMBtu per hour burner for the aggregate dryer/mixer burner shall be limited to less than 2,600,000 gallons or equivalent per twelve (12) consecutive month period, with compliance determined at the end of each month.

For the purpose of determining compliance with this limit:

- (1) Every 125 million cubic feet of natural gas shall be equivalent to one thousand (1000) gallons of No. 4 fuel oil. However, the natural gas usage shall in no case exceed 700 million cubic feet per twelve (12) consecutive month period.
 - (2) Every 0.96 gallons of No. 2 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 2 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.
 - (3) Every 0.96 gallons of No. 6 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 6 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.
 - (4) Every 3,750 gallons of Propane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Propane usage shall in no case exceed 10,300,000 gallons per twelve (12) consecutive month period.
 - (5) Every 3,788 gallons of Butane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Butane usage shall in no case exceed 9,300,000 gallons per twelve (12) consecutive month period.
 - (6) Every 0.51 gallons of waste oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the waste oil usage shall in no case exceed 1,330,000 gallons per twelve (12) consecutive month period.
- (b) The sulfur content of the waste oil shall be limited to one percent (1.00%) by weight.
 - (c) The sulfur content of the No. 2, No. 4, and No. 6 fuel oils shall not exceed one-half percent (0.5%) by weight.

Compliance with these limits, combined with the SO₂ emissions from other units at the source, will limit source-wide SO₂ emissions to less than 100 tons per twelve (12) consecutive month period. Compliance with these limits will render 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD) not applicable.

D.1.5 Nitrogen Oxides (NO_x) Emissions [326 IAC 2-8-4] [326 IAC 2-2]

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

- (a) The usage of No. 4 fuel oil in the 175 MMBtu per hour burner for the aggregate dryer/mixer burner shall be limited to less than 2,600,000 gallons or equivalent per twelve (12) consecutive month period, with compliance determined at the end of each month.

For the purpose of determining compliance with this limit:

- (1) Every 0.17 million cubic feet of natural gas shall be equivalent to one thousand (1000) gallons of No. 4 fuel oil. However, the natural gas usage shall in no case exceed 700 million cubic feet per twelve (12) consecutive month period.
- (2) Every 1.96 gallons of No. 2 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 2 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.
- (3) Every 1.00 gallons of No. 6 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 6 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.
- (4) Every 2.47 gallons of Propane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Propane usage shall in no case exceed 10,300,000 gallons per twelve (12) consecutive month period.
- (5) Every 2.24 gallons of Butane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Butane usage shall in no case exceed 9,300,000 gallons per twelve (12) consecutive month period.
- (6) Every 2.47 gallons of waste oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the waste oil usage shall in no case exceed 1,330,000 gallons per twelve (12) consecutive month period.

Compliance with these limits, combined with the NO_x emissions from other units at the source, will limit source-wide NO_x emissions to less than 100 tons per twelve (12) consecutive month period. Compliance with these limits will render 326 IAC 2-7 (Part 70 Permit Program), and 326 IAC 2-2 (PSD) not applicable.

D.1.6 Hydrogen Chloride (HCl) [326 IAC 2-8-4]

- (1) The usage of waste oil in the 175 MMBtu per hour burner for the aggregate dryer shall be limited to less than 1,330,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) The chlorine content of the waste oil used in the 175 MMBtu per hour burner for the aggregate dryer shall not exceed one hundred fourteen hundredths of a percent (0.114%) by weight.
- (3) The HCl emissions from the in the 175 MMBtu per hour burner for the aggregate dryer shall be limited to less than 7.5 pounds of HCl per 1,000 gallons of waste oil burned.

These limits are required in order to limit the source-wide emissions of HCl to less than 10 tons per year. Compliance with these limits will also limit source-wide emissions of combined HAPs to less than 25 tons per year. Therefore, compliance with these limits renders 326 IAC 2-7 (Part 70) not applicable.

D.1.7 Opacity Emission Limitation [326 IAC 5-1][326 IAC 12][40 CFR 60.90 Subpart I]

- (a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity from the source shall meet the following, unless otherwise stated in this permit:
- (1) Opacity from the source 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.
 - (2) Opacity from the source 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (b) Opacity from the hot mix asphalt facility which 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 the emission control system shall not exceed 20%. This assures compliance with opacity limit of the New Source Performance Standards, 326 IAC 12 (40 CFR 60.92)

D.1.8 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 the RAP crushing, screening, and conveying operations and their control device(s), and for the aggregate dryer and drum mixer unit and its control device.

Compliance Determination Requirements

D.1.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within sixty (60) days after achieving maximum capacity, but not later than one hundred and eighty (180) days after startup, in order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform PM and PM₁₀ testing of the aggregate dryer/mixer utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C - Performance Testing.

D.1.10 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Conditions D.1.7(a), D.1.7(b), D.1.8(b) and D.1.8(c) shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil or No. 4 distillate oil and one and six-tenths (1.6) pounds per million British thermal unit heat input when operating on reused (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 aggregate dryer and batch mixer 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.1.11 Hydrogen Chloride (HCl) Emissions and Chlorine Content

In order to comply with Condition D.1.10, the Permittee shall demonstrate that the chlorine content of the fuel used for the aggregate dryer burner does not exceed twenty-two hundredths of a percent (0.22%) by weight, when operating on waste oil, by providing a vendor analysis of fuel delivered accompanied by a vendor certification.

D.1.12 Particulate Control

- (a) In order to comply with Conditions D.1.3, D.1.4 and D.1.6(b), the cyclone (CE1) and jet pulse baghouse (CE2) for the aggregate dryer/mixer shall be in operation and control emissions from the aggregate dryer/mixer at all times when the aggregate dryer/mixer is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.1.13 Visible Emissions Notations

- (a) Visible emission notations of the conveyors, material transfer points and aggregate dryer/mixer stack (S1) exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) 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.1.14 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) The Permittee shall record the pressure drop across the baghouse (CE2) used in conjunction with the aggregate dryer/mixer at least once per day when the aggregate dryer/mixer is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 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.

- (b) The Permittee shall record the inlet temperature to the baghouse (CE2) used in conjunction with the aggregate dryer/mixer, at least once per day when the aggregate dryer/mixer is in operation. When for any one reading, the inlet temperature to the baghouse is outside the normal range of 200 and 400 degrees Fahrenheit 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. This is required to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. A temperature 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.
- (c) The instruments used for determining the pressure and temperature 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.1.15 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 emissions 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, or dust traces.

D.1.16 Cyclone Failure Detection

- (a) For a cyclone 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 cyclone 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 emissions 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).

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

D.1.17 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.3, D.1.4 and D.1.6, the Permittee shall

maintain records in accordance with (1) through (4) below.

- (1) Calendar dates covered in the compliance determination period;
- (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, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); 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 sulfur content of the fuel oil, or waste oil, and a statement from the fuel supplier that certifies the chlorine content of the waste oil;
- (b) To document compliance with Conditions D.1.3, D.1.4, D.1.5, and D.1.6, the Permittee shall keep records of the actual amount of each fuel used at the aggregate dryer burner, since the last compliance determination period and equivalent sulfur dioxide, nitrogen oxide, and hydrogen chloride emissions. Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.
 - (c) To document compliance with Conditions D.1.1 and D.1.2(a), the Permittee shall keep records of the amount of asphalt processed through the aggregate dryer/mixer. Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.
 - (d) To document compliance with Condition D.1.13, the Permittee shall maintain daily records of the visible emission notations from each of the conveyors, material transfer points, and aggregate dryer/mixer stack (S1) exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the plant did not operate that day).
 - (e) To document compliance with Condition D.1.14, the Permittee shall maintain the following:
 - (1) Daily records of the pressure drop across the jet pulse baghouse controlling the aggregate dryer/mixer. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g., the aggregate dryer/mixer did not operate that day).
 - (2) Records of the inlet temperature at the baghouse during normal operation once per day. The Permittee shall include in its daily record when a temperature reading is not taken and the reason for the lack of a temperature reading, (e.g., the aggregate dryer/mixer did not operate that day).
 - (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.18 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Conditions D.1.1, D.1.2(a), D.1.2(b), D.1.2(c), D.1.3, D.1.4, D.1.5 and D.1.6 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does

require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

- (a) Natural gas/fuel fired combustion source (One (1) oil heater burner) with heat input equal to or less than ten million (10,000,000) Btu per hour , capacity: 2.00 million British thermal units per hour.
- (b) A petroleum fuel, other than gasoline, dispensing facility, identified as FT1, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (d) Two (2) 25,000 gallon self contained liquid asphalt storage tanks , identified as LAC1 and LAC2, approved for construction in 2008;
- (e) One (1) 30,000 gallon self contained liquid asphalt storage tank, identified as LAC3, approved for construction in 2008;
- (f) One (1) 35,000 gallon self contained liquid asphalt storage tank, identified as LAC4, approved for construction in 2008;
- (g) One (1) 22,000 gallon #4 fuel oil self contained storage tank, identified as FT2, approved for construction in 2008;
- (h) One (1) 30,000 gallon #4 fuel oil self contained storage tank, identified as FT3, approved for construction in 2008;
- (i) One (1) 750 BBL (1BBL equals 42 US gallons) Mineral Fill Silo, identified as MS1, approved for construction in 2008;
- (j) Six (6) 300 ton hot-mix silos, identified as S1through S6, approved for construction in 2008;
- (k) Twelve (12) 30 ton Cold Feed Bins, identified as B1 through B12, approved for construction in 2008;
- (l) Two (2) 30 ton Recycle Bins for RAP storage, identified as RB1 and RB2, approved for construction in 2008;
- (m) Feeding, conveying, and loading operations, processing a maximum of 450 tons per hour, consisting of;
 - (1) one (1) collecting conveyor, approved for construction in 2008;
 - (2) one (1) transfer conveyor, approved for construction in 2008; and
- (n) Paved and unpaved roads with limited public access. [326 IAC 6-4]

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

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

D.2.1 PM and PM10 Emissions [326 IAC 2-8-4] [326 IAC 6-5]

Pursuant to 326 IAC 2-8 and 326 IAC 6-5, the Permittee shall control PM and PM10 emissions from paved and unpaved roads according to the fugitive dust plan submitted on December 13, 1996, which is included in Section C - Fugitive Particulate Matter Emission Limitations, of this permit.

SECTION E.1

FACILITY OPERATION CONDITIONS

Emissions Unit Description: Recycled Asphalt Pavement (RAP) System

- (a) One (1) recycled asphalt pavement (RAP) system, identified as RC1, consisting of a RAP breaker, screen and conveyors, capacity: 50 tons per hour.

Under NSPS Subpart OOO, this is an affected facility (i.e. crushers and grinding mills) at hot mix asphalt facility that reduces the size of nonmetallic minerals embedded in recycled asphalt pavement.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

E.2.1 NSPS Subpart OOO Requirements - Standards of Performance for Nonmetallic Mineral Processing Plants [40 CFR Part 60, Subpart OOO] [326 IAC 12-1]

Pursuant to CFR Part 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart OOO, which are incorporated by reference as 326 IAC 12-1 for the recycled asphalt pavement (RAP) system as specified as follows. Pursuant to 40 CFR 60.670, the affected facility to which the provisions of this subpart apply is each crusher and grinding mill in each recycled asphalt pavement (RAP) system, at hot mix asphalt facilities, that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement.

§ 60.670 Applicability and designation of affected facility.

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; and stand-alone screening operations at plants without crushers or grinding mills.

(b) An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of

this section.

(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in §60.676(a).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.

(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that apply and those that do not apply to owners and operators of affected facilities subject to this subpart.

Table 1—Applicability of Subpart A to Subpart OOO

Subpart A reference	Applies to Subpart OOO	Comment
60.1, Applicability	Yes	
60.2, Definitions	Yes	
60.3, Units and abbreviations	Yes	
60.4, Address:		
(a)	Yes	
(b)	Yes	
60.5, Determination of construction or modification	Yes	
60.6, Review of plans	Yes	
60.7, Notification and recordkeeping	Yes	Except in (a)(2) report of anticipated date of initial startup is not required (§60.676(h)).
60.8, Performance tests	Yes	Except in (d), after 30 days notice for an initially scheduled performance test, any rescheduled performance test requires 7 days notice, not 30 days (§60.675(g)).
60.9, Availability of information	Yes	
60.10, State authority	Yes	
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675 (c)(3) and (c)(4)), Method 9 observation may be reduced from 3 hours to 1 hour. Some affected facilities exempted from Method 9 tests (§60.675(h)).
60.12, Circumvention	Yes	
60.13, Monitoring requirements	Yes	
60.14, Modification	Yes	
60.15, Reconstruction	Yes	
60.16, Priority list	Yes	

Subpart A reference	Applies to Subpart OOO	Comment
60.17, Incorporations by reference	Yes	
60.18, General control device	No	Flares will not be used to comply with the emission limits.
60.19, General notification and reporting requirements	Yes	

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more process operations to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more process operations at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

(a) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

(b) Sand and Gravel.

(c) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.

(d) Rock Salt.

(e) Gypsum.

(f) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.

(g) Pumice.

(h) Gilsonite.

(i) Talc and Pyrophyllite.

(j) Boron, including Borax, Kernite, and Colemanite.

(k) Barite.

(l) Fluorospar.

(m) Feldspar.

(n) Diatomite.

(o) Perlite.

(p) Vermiculite.

(q) Mica.

(r) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) or nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.672 Standard for particulate matter.

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

- (1) Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and
- (2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of §60.676 (c), (d), and (e).

(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d), and (e) of this section.

(c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in §60.671.

(2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

(f) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.

(g) Owners or operators of multiple storage bins with combined stack emissions shall comply with the emission limits in paragraph (a)(1) and (a)(2) of this section.

(h) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere any visible emissions from:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

§ 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under §60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under §60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement

commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

§ 60.675 Test methods and procedures.

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

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.672(a) as follows:

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) of this subpart, the duration of the Method 9 observations may be

reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 10 percent opacity; and

(ii) There are no more than 3 readings of 10 percent for the 1-hour period.

(4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under §60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 15 percent opacity; and

(ii) There are no more than 3 readings of 15 percent for the 1-hour period.

(d) In determining compliance with §60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a) and (b) during each particulate matter run and shall determine the averages.

(g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

(h) Initial Method 9 performance tests under §60.11 of this part and §60.675 of this subpart are not required for:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[54 FR 6680, Feb. 14, 1989, as amended at 62 FR 31360, June 9, 1997]

§ 60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(i) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(i) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(i) The rated capacity in megagrams or tons of the existing storage bin being replaced and

(ii) The rated capacity in megagrams or tons of replacement storage bins.

(b) [Reserved]

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ± 30 percent from the averaged determined during the most recent performance test.

(e) The reports required under paragraph (d) shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b), (c), and (f), and reports of observations using Method 22 to demonstrate compliance with §60.672(e).

(g) The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to §60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in §60.672(b) and the emission test requirements of §60.11 and this subpart. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in §60.672(h).

(h) The subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

(j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

[51 FR 31337, Aug. 1, 1985, as amended at 54 FR 6680, Feb. 14, 1989; 62 FR 31360, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

SECTION E.2

FACILITY OPERATION CONDITIONS

Emissions Unit Description: Hot-Mix Asphalt Plant

- (b) One (1) aggregate rotary dryer and drum hot-mix unit, approved for construction in 2008, identified as Unit 01, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil, with a maximum heat input capacity: 175 million British thermal units per hour, and a maximum throughput capacity of 450 tons per hour of asphalt, equipped with one (1) cyclone (identified as CE1) and one (1) jet pulse baghouse (identified as CE2) for particulate matter control, and exhausting through stack S1.

Under NSPS subpart I, this is considered an affected hot mix asphalt facility.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

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

Pursuant to CFR Part 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart I, which are incorporated by reference as 326 IAC 12-1 for the asphalt plant as specified as follows. Pursuant to 40 CFR 60.90(a), the affected facility to which the provisions of this subpart apply is each hot mix asphalt facility. For the purpose of this subpart, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.

§ 60.90 Applicability and designation of affected facility.

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

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

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

§ 60.91 Definitions.

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

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

[51 FR 12325, Apr. 10, 1986]

§ 60.92 Standard for particulate matter.

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

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

[39 FR 9314, Mar. 8, 1974, as amended at 40 FR 46259, Oct. 6, 1975]

§ 60.93 Test methods and procedures.

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

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

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

[54 FR 6667, Feb. 14, 1989]

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 110 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045

**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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

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

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 110 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045

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 317-233-0178, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045
Facility: One (1) aggregate dryer/mixer
Parameter: Asphalt processed
Limit: 950,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month

QUARTER: _____ YEAR: _____

Month	Asphalt processed (tons)	Asphalt processed (tons)	Asphalt processed (tons)
	This Month	Previous 11 Months	12 Month Total

- 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**

Multiple Fuel Quarterly Report

Page 1 of 2

Source Name: Rogers Group, Inc. - Bloomington Asphalt
 Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
 FESOP No.: F 105-23908-00045
 Facility: Dryer/mixer burner
 Parameter: Fuel Usage
 Limit: The usage of No. 4 distillate fuel oil and No. 4 distillate fuel oil equivalents in the dryer/mixer burner shall be less than 2,600,000 gallons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit shall limit the source-wide total potential to emit SO₂ to less than 100 tons per 12 consecutive month period, each, each, HCl to less than 10 tons per 12 consecutive month period, and any combination of HAPs to less than 25 tons per 12 consecutive month period.

The primary fuel burned in the dryer/mixer burner is No. 4 distillate fuel oil.

- For the purpose of determining compliance with this limit:
- (1) Every 125 million cubic feet (MMCF) of natural gas shall be equivalent to one thousand (1000) gallons of No. 4 distillate fuel oil
 - (2) Every 0.96 gallons of No. 2 fuel oil \leq 0.5 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
 - (3) Every one (1) gallons of No. 4 fuel oil \leq 0.5 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
 - (4) Every 0.96 gallons of Residual Oil (No. 5 or No. 6 fuel oil) \leq 0.5 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
 - (5) Every 3750 gallons of Propane shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
 - (6) Every 3788 gallons of Butane shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
 - (7) Every 0.51 gallons of Used/Waste oil \leq 1.0 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil

In no case shall fuel usage exceed the below limits per twelve (12) consecutive month period.

Fuel Type (units)	Fuel Usage Limit (per 12 consecutive month period)
Natural Gas (million cubic feet)	700
No. 2 Fuel Oil \leq 0.5 wt% sulfur (gallons)	2,500,000
No. 4 Fuel Oil \leq 0.5 wt% sulfur (gallons)	2,600,000
Residual Oil (No. 5 or No. 6 Fuel Oil) \leq 0.5 wt% sulfur (gallons)	2,500,000
Propane (gallons)	10,300,000
Butane (gallons)	9,300,000
Used/Waste Oil \leq 1.0 wt% sulfur (gallons)	1,330,000
Diesel Fuel Oil used in electrical generators (gallons)	320,000

Multiple Fuel Quarterly Report

QUARTER: _____ YEAR: _____

Month	Fuel Type (units)	No. 4 distillate fuel oil Equivalent Usage (gallons)				
		Fuel Usage	Equivalent Usage	Total Equivalent Usage	Total Equivalent Usage	Total Equivalent Usage
		This Month	This Month	This Month	Previous 11 Months	12 Month Total
Month 1	Natural Gas (MMCF)					
	No. 2 Fuel Oil (gallons)					
	No. 4 Fuel Oil (gallons)					
	Residual Oil (No. 5 or No. 6 Fuel Oil) (gallons)					
	Propane (gallons)					
	Butane (gallons)					
	Used/Waste Oil (gallons)					
Month 2	Natural Gas (MMCF)					
	No. 2 Fuel Oil (gallons)					
	No. 4 Fuel Oil (gallons)					
	Residual Oil (No. 5 or No. 6 Fuel Oil) (gallons)					
	Propane (gallons)					
	Butane (gallons)					
	Used/Waste Oil (gallons)					
Month 3	Natural Gas (MMCF)					
	No. 2 Fuel Oil (gallons)					
	No. 4 Fuel Oil (gallons)					
	Residual Oil (No. 5 or No. 6 Fuel Oil) (gallons)					
	Propane (gallons)					
	Butane (gallons)					
	Used/Waste Oil (gallons)					

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

Submitted by: _____ Date: _____

Title / Position: _____ Phone: _____

Signature: _____

Attach a signed certification to complete this report.

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

Multiple Fuel Quarterly Report

Page 1 of 2

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045
Facility: Dryer/mixer burner
Parameter: Fuel Usage

Limit: The usage of No. 4 distillate fuel oil and No. 4 distillate fuel oil equivalents in the dryer/mixer burner shall be less than 2,600,000 gallons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit shall limit the source-wide total potential to emit NOx to less than 100 tons per 12 consecutive month period, each, each, HCl to less than 10 tons per 12 consecutive month period, and any combination of HAPs to less than 25 tons per 12 consecutive month period.

The primary fuel burned in the dryer/mixer burner is No. 4 distillate fuel oil.

For the purpose of determining compliance with this limit:

- (1) Every 0.17 million cubic feet (MMCF) of natural gas shall be equivalent to one thousand (1000) gallons of No. 4 distillate fuel oil
- (2) Every 1.96 gallons of No. 2 fuel oil \leq 0.5 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
- (3) Every one (1) gallons of No. 4 fuel oil \leq 0.5 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
- (4) Every 1.00 gallons of Residual Oil (No. 5 or No. 6 fuel oil) \leq 0.5 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
- (5) Every 2.47 gallons of Propane shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
- (6) Every 2.24 gallons of Butane shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
- (7) Every 2.47 gallons of Used/Waste oil \leq 1.0 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil

In no case shall fuel usage exceed the below limits per twelve (12) consecutive month period.

Fuel Type (units)	Fuel Usage Limit (per 12 consecutive month period)
Natural Gas (million cubic feet)	700
No. 2 Fuel Oil \leq 0.5 wt% sulfur (gallons)	2,500,000
No. 4 Fuel Oil \leq 0.5 wt% sulfur (gallons)	2,600,000
Residual Oil (No. 5 or No. 6 Fuel Oil) \leq 0.5 wt% sulfur (gallons)	2,500,000
Propane (gallons)	10,300,000
Butane (gallons)	9,300,000
Used/Waste Oil \leq 1.0 wt% sulfur (gallons)	1,330,000
Diesel Fuel Oil used in electrical generators (gallons)	320,000

Multiple Fuel Quarterly Report

QUARTER: _____ YEAR: _____

Month	Fuel Type (units)	No. 4 distillate fuel oil Equivalent Usage (gallons)				
		Fuel Usage	Equivalent Usage	Total Equivalent Usage	Total Equivalent Usage	Total Equivalent Usage
		This Month	This Month	This Month	Previous 11 Months	12 Month Total
Month 1	Natural Gas (MMCF)					
	No. 2 Fuel Oil (gallons)					
	No. 4 Fuel Oil (gallons)					
	Residual Oil (No. 5 or No. 6 Fuel Oil) (gallons)					
	Propane (gallons)					
	Butane (gallons)					
	Used/Waste Oil (gallons)					
Month 2	Natural Gas (MMCF)					
	No. 2 Fuel Oil (gallons)					
	No. 4 Fuel Oil (gallons)					
	Residual Oil (No. 5 or No. 6 Fuel Oil) (gallons)					
	Propane (gallons)					
	Butane (gallons)					
	Used/Waste Oil (gallons)					
Month 3	Natural Gas (MMCF)					
	No. 2 Fuel Oil (gallons)					
	No. 4 Fuel Oil (gallons)					
	Residual Oil (No. 5 or No. 6 Fuel Oil) (gallons)					
	Propane (gallons)					
	Butane (gallons)					
	Used/Waste Oil (gallons)					

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

Submitted by: _____ Date: _____

Title / Position: _____ Phone: _____

Signature: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
MC-61-53 IGCN 1003**

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

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 110 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045

Months: _____ to _____ Year: _____

Page 1 of 2

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".	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Rogers Group, Inc. - Bloomington Asphalt
Source Location:	1100 N. Oard Road, Bloomington, IN 47404
County:	Monroe
SIC Code:	2951
Permit Renewal No.:	F 105-23908-00045
First Significant Permit Revision No.:	F 105-25414-00045
Permit Reviewer:	Hannah L. Desrosiers

On January 4, 2008, the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) had a notice published in The Herald Times, Bloomington, Indiana, stating that Rogers Group, Inc. - Bloomington Asphalt had applied for a Significant Permit Revision (SPR) to a Federally Enforceable State Operating (FESOP) Permit relating to the replacement of aging equipment in the existing stationary batch mix asphalt plant and the addition of new equipment intended to increase the production capabilities and allow for future growth. Additionally, the source has requested that the permit term for their recent renewal be extended to ten (10) years. The notice also stated that IDEM, OAQ proposed to issue a FESOP SPR for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On January 15, 2008, Robin Lemieux, Bloomington resident, submitted a comment on the proposed Significant Permit Revision. The summary of the comments and responses are shown below. Deleted text is shown in ~~strikeout~~ and new text is shown in **bold**. The Table of Contents has been updated as necessary.

Comment 1:

Please consider limiting the amount of pollutants that the Bloomington plant releases. It has been brought up that they are planning to expand and thus release more pollution. I live about 3 miles from the Oard Road site. As a severe asthmatic, I chose to live in Bloomington since I wouldn't have to deal with "big city" smog, pollution, etc. Before moving to Bloomington, I lived in the Cincinnati area for over a year. During that time, I had major problems breathing which I attribute to smog, air pollution, etc. I understand Roger's desire to expand—isn't that the goal of business? However, please consider the consequences to the health of our community and our environment before releasing contaminants into the air. Can there be more filters? Can there be alternatives?

IDEM Response 1:

The federal Clean Air Act requires the United States Environmental Protection Agency (U.S. EPA) to set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants. These criteria pollutants are carbon monoxide (CO), lead, sulfur dioxide (SO₂), particulate matter to a diameter of 10 microns (PM₁₀), particulate matter to a diameter of 2.5 microns (PM_{2.5}), nitrogen oxides (NO_x) and ground level ozone. The U.S. EPA sets these standards at levels that protect human health, which is why the NAAQS are

often referred to as the federal health standards for outdoor air. The NAAQS limit for all criteria pollutants is set low enough to protect human health, including the health of sensitive persons, such as asthmatics, children, and the elderly. More information about each of these pollutants is available at <http://www.epa.gov/air/airpollutants.html> on U.S. EPA's website. The complete table of the NAAQS for all six criteria pollutants can be found at the <http://www.epa.gov/air/criteria.html> website. EPA's website <http://www.epa.gov/air/urbanair/6poll.html> provides more detailed information about the health effects of these six common air pollutants and why they are regulated.

The federal Clean Air Act requires the United States Environmental Protection Agency (U.S. EPA) to determine whether the ambient air in any area of the United States fails to meet any of the National Ambient Air Quality Standards (NAAQS). Any area that fails to meet one or more of the NAAQS will be designated as in "nonattainment" for that pollutant. Large air pollution sources in a nonattainment area are subject to additional regulations and U.S. EPA may require that additional steps be taken that will result in the area meeting the NAAQS.

Monroe County is in attainment for all the NAAQS. Information about current and expected air pollution levels is available on IDEM's SmogWatch site at <http://www.in.gov> on the internet. The site is designed to provide Hoosiers with an easy-to-read forecast of air quality in their communities. The site provides information about ground-level ozone and particulate matter forecasts.

In response to this comment, IDEM conducted an air quality modeling analysis for the Rogers Group, Inc. - Bloomington Asphalt plant. The analysis shows the emissions from the asphalt plant will be in compliance with the U.S. EPA NAAQS at the property boundary, with the pollutant concentrations at their greatest within the property boundaries and decreasing dramatically the further the receptors are away from the source. By the time the plume has extended three miles away from the source, the concentrations will have decreased by over 99%. As is typical with this type of operation, most of the pollutant concentrations occur from fugitive dust emissions/(PM/PM10) (including material storage piles, paved/unpaved roads, etc...). Any pollutants generated from the dryer/mixer fuel combustion will have dispersed much more quickly.

Rogers Group, Inc. - Bloomington Asphalt operates under, and is requesting a revision to, a Federally Enforceable State Operating Permit (FESOP). The FESOP limits emissions to less than the Part 70 permit thresholds and is issued to sources that would otherwise have to operate in accordance with the Part 70 permit requirements in 326 IAC 2-7. Emission limits are restrictions over a given period of time on the amount of a pollutant which may be emitted from a source into the outside air. These restrictions may also include limitations on a source's production or operation, such as limiting quantities of raw materials consumed, fuel combusted, hours of operation, or conditions which specify that the source must install and maintain controls that reduce emissions to a specified emission rate or to a specified efficiency level. Additionally, the source may be required to do stack testing, maintain records, and/or submit reports to demonstrate compliance with their FESOP limits. The Rogers Group, Inc. - Bloomington Asphalt FESOP includes; emission limitations for each of the NAAQS criteria pollutants based on annual asphalt production limitations, and asphalt dryer/mixer fuel input and fuel characteristic (such as sulfur and chlorine content) limitations, emissions testing (PM and PM10) for the asphalt dryer/mixer, emissions control device operation and monitoring requirements for the asphalt dryer/mixer, visible emissions limitations and monitor requirements for the material handling and storage operations, fugitive dust control requirements as stated in the fugitive dust control plan submitted on December 13, 1996 included in Section C of the permit, and recordkeeping and quarterly reporting to document compliance with the production, fuel usage and fuel characteristic limitations and compliance monitoring requirements contained in Section D of the permit.

IDEM has decided to replace the fuel usage quarterly report forms with a single multiple fuel quarterly report form. The new reporting form will aid Rogers Group, Inc. - Bloomington Asphalt in better tracking fuel usage on a monthly basis and help ensure compliance with the maximum allowable usage over a twelve (12) consecutive month period.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 MC-61-53-IGCN-1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
 Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
 FESOP No.: F 105-23908-00045
 Facility: One (1) aggregate dryer
 Parameter: Fuel Usage (SO₂ and NO_x emissions)
 Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	No. 4 Distillate Fuel Oil Usage (gallons)	No. 4 Distillate Fuel Oil Usage (gallons)	No. 4 Distillate Fuel Oil Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
 MC-61-53-IGCN-1003

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
 Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
 FESOP No.: F 105-23908-00045
 Facility: One (1) aggregate dryer
 Parameter: Fuel Usage (SO₂ and NO_x emissions)
 Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	No. 2 Distillate Fuel Oil Usage (gallons)	No. 2 Distillate Fuel Oil Usage (gallons)	No. 2 Distillate Fuel Oil Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
 MC-61-53-IGCN-1003

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
 Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
 FESOP No.: F 105-23908-00045
 Facility: One (1) aggregate dryer
 Parameter: Fuel Usage (SO₂ and NO_x emissions)
 Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	No. 6 Distillate Fuel Oil Usage (gallons)	No. 6 Distillate Fuel Oil Usage (gallons)	No. 6 Distillate Fuel Oil Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
 MC-61-53-IGCN-1003

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
 Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
 FESOP No.: F 105-23908-00045
 Facility: One (1) aggregate dryer
 Parameter: Fuel Usage (SO₂ and NO_x emissions)
 Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Natural Gas Usage (MMCF)	Natural Gas Usage (MMCF)	Natural Gas Usage (MMCF)
	This Month	Previous 11 Months	12 Month Total

- 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
 MC-61-53 IGCN 1003

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
 Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
 FESOP No.: F 105-23908-00045
 Facility: One (1) aggregate dryer
 Parameter: Fuel Usage (SO₂ and NO_x emissions)
 Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Propane Usage (gallons)	Propane Usage (gallons)	Propane Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
 MC-61-53 IGCN 1003

FESOP Quarterly Report

Source Name: ~~_____~~ Rogers Group, Inc. - Bloomington Asphalt
 Source Address: ~~_____~~ 1100 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: ~~_____~~ P.O. Box 25250, Nashville, Tennessee 37202
 FESOP No.: ~~_____~~ F 105-23908-00045
 Facility: ~~_____~~ One (1) aggregate dryer
 Parameter: ~~_____~~ Fuel Usage (SO₂ and NO_x emissions)
 Limit: ~~_____~~ Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Butane Usage (gallons)	Butane Usage (gallons)	Butane Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
 MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
 Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
 FESOP No.: F 105-23908-00045
 Facility: One (1) aggregate dryer
 Parameter: Fuel Usage (SO₂ and NO_x emissions)
 Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Reused (Waste) Oil Usage (gallons)	Reused (Waste) Oil Usage (gallons)	Reused (Waste) Oil Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
 MC-61-53-IGCN-1003

FESOP Quarterly Report

Source Name: ~~_____~~ Rogers Group, Inc. - Bloomington Asphalt
 Source Address: ~~_____~~ 1100 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: ~~_____~~ P.O. Box 25250, Nashville, Tennessee 37202

FESOP No.: ~~_____~~ F 105-23908-00045

Facility: ~~_____~~ One (1) aggregate dryer
 Parameter: ~~_____~~ Reused (Waste) Oil Usage (HCl emissions)
 Limit: ~~_____~~ Less than 1,330,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Reused (Waste) Oil Usage (gallons)	Reused (Waste) Oil Usage (gallons)	Reused (Waste) Oil Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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**

**Multiple Fuel Quarterly Report
 Page 1 of 2**

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045
Facility: Dryer/mixer burner
Parameter: Fuel Usage
Limit: The usage of No. 4 distillate fuel oil and No. 4 distillate fuel oil equivalents in the dryer/mixer burner shall be less than 2,600,000 gallons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit shall limit the source-wide total potential to emit NO_x and SO₂ to less than 100 tons per 12 consecutive month period, each, HCl to less than 10 tons per 12 consecutive month period, and any combination of HAPs to less than 25 tons per 12 consecutive month period.

The primary fuel burned in the dryer/mixer burner is No. 4 distillate fuel oil.

- For the purpose of determining compliance with this limit:
- (1) Every 700 million cubic feet (MMCF) of natural gas shall be equivalent to one thousand (1000) gallons of No. 4 distillate fuel oil
 - (2) Every 0.96 gallons of No. 2 fuel oil \leq 0.5 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
 - (3) Every one (1) gallons of No. 4 fuel oil \leq 0.5 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
 - (4) Every 0.96 gallons of Residual Oil (No. 5 or No. 6 fuel oil) \leq 0.5 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
 - (5) Every 3750 gallons of Propane shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
 - (6) Every 3788 gallons of Butane shall be equivalent to one (1) gallon of No. 4 distillate fuel oil
 - (7) Every 0.51 gallons of Used/Waste oil \leq 1.0 wt% sulfur shall be equivalent to one (1) gallon of No. 4 distillate fuel oil

In no case shall fuel usage exceed the below limits per twelve (12) consecutive month period.

Fuel Type (units)	Fuel Usage Limit (per 12 consecutive month period)
Natural Gas (million cubic feet)	700
No. 2 Fuel Oil \leq 0.5 wt% sulfur (gallons)	2,500,000
No. 4 Fuel Oil \leq 0.5 wt% sulfur (gallons)	2,600,000
Residual Oil (No. 5 or No. 6 Fuel Oil) \leq 0.5 wt% sulfur (gallons)	2,500,000
Propane (gallons)	10,300,000
Butane (gallons)	9,300,000
Used/Waste Oil \leq 1.0 wt% sulfur (gallons)	1,330,000
Diesel Fuel Oil used in electrical generators (gallons)	320,000

Multiple Fuel Quarterly Report

QUARTER: _____ YEAR: _____

Month	Fuel Type (units)	Fuel Usage	No. 4 distillate fuel oil Equivalent Usage (gallons)			
			Equivalent Usage	Total Equivalent Usage	Total Equivalent Usage	Total Equivalent Usage
			This Month	This Month	This Month	Previous 11 Months
Month 1	Natural Gas (MMCF)					
	No. 2 Fuel Oil (gallons)					
	No. 4 Fuel Oil (gallons)					
	Residual Oil (No. 5 or No. 6 Fuel Oil) (gallons)					
	Propane (gallons)					
	Butane (gallons)					
	Used/Waste Oil (gallons)					
Month 2	Natural Gas (MMCF)					
	No. 2 Fuel Oil (gallons)					
	No. 4 Fuel Oil (gallons)					
	Residual Oil (No. 5 or No. 6 Fuel Oil) (gallons)					
	Propane (gallons)					
	Butane (gallons)					
	Used/Waste Oil (gallons)					
Month 3	Natural Gas (MMCF)					
	No. 2 Fuel Oil (gallons)					
	No. 4 Fuel Oil (gallons)					
	Residual Oil (No. 5 or No. 6 Fuel Oil) (gallons)					
	Propane (gallons)					
	Butane (gallons)					
	Used/Waste Oil (gallons)					

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

Submitted by: _____ Date: _____

Title / Position: _____ Phone: _____

Signature: _____

Attach a signed certification to complete this report.

Upon further review, IDEM has determined that the following condition(s) do not need to be included in the permit, since they are each regulated by other agencies. Deleted text is shown in ~~strikeout~~ and new text is shown in **bold**. The Table of Contents has been updated and the remaining sections have been renumbered accordingly:

~~D.1.7 Used Oil Requirements [329 IAC 13]~~

~~The waste oil burned in the aggregate dryer/mixer 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.~~

~~D.1.17 Record Keeping Requirements~~

~~...~~

~~(c) To document compliance with Condition D.1.7, the Permittee shall maintain the following:~~

- ~~(1) Pursuant to 329 IAC 13-8-6, records of each used oil shipment accepted for burning. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents and must include the following information:
 - ~~(A) The name and address of the transporter who delivered the used oil to the burner.~~
 - ~~(B) The name and address of the generator or processor or re-refiner from whom the used oil was sent to the burner.~~
 - ~~(C) The EPA identification number of the transporter who delivered the used oil to the burner.~~
 - ~~(D) The EPA identification number, if applicable, of the generator or processor or re-refiner from whom the used oil was sent to the burner.~~
 - ~~(E) The quantity of used oil accepted.~~
 - ~~(F) The date of acceptance.~~~~
- ~~(2) The records described in this section must be maintained for at least three (3) years.~~

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Rogers Group, Inc. - Bloomington Asphalt
Source Location:	1100 N. Oard Road, Bloomington, IN 47404
County:	Monroe
SIC Code:	2951
Permit Renewal No.:	F 105-23908-00045
First Significant Permit Revision No.:	F 105-25414-00045
Permit Reviewer:	Hannah L. Desrosiers

The Office of Air Quality (OAQ) has received a Significant Permit Revision (SPR) application from Rogers Group, Inc. - Bloomington Asphalt related to the replacement of aging equipment in the existing stationary batch mix asphalt plant and the addition of new equipment intended to increase the production capabilities and allow for future growth.

Existing Approvals

The source was issued FESOP Renewal No. 105-23908-00045 on December 7, 2007.

County Attainment Status

The source is located in Monroe County

Pollutant	Status
PM ₁₀	attainment
PM _{2.5}	attainment
SO ₂	attainment
NO _x	attainment
8-hour Ozone	attainment
CO	attainment
Lead	attainment

On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

- (a) Monroe County has been classified as unclassifiable or attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM_{2.5} emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) and nitrogen oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Monroe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

- (c) Monroe County has been classified as attainment or unclassifiable in Indiana for all remaining 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 – Entire Source section.
- (d) Fugitive Emissions are counted toward the determination of PSD applicability because while this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2; there is an applicable New Source Performance Standard that was in effect on August 7, 1980. See the State Rule Applicability – Entire Source section.

Source Status

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

Pollutant	Emissions (tons/year)
PM	249
PM ₁₀	99.0
SO ₂	99.0
VOC	99.0
CO	99.0
NO _x	99.0
*HAPs	12.4

*HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) This existing source is not a major stationary source under Emission Offset (326 IAC 2-3) because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.
- (c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the Permittee has accepted limits on HAPs emissions to less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).
- (c) These emissions are based upon FESOP Renewal No. 105-23908-00045, issued on December 7, 2007.

Description of New Source Construction and Proposed Revision

The Office of Air Quality (OAQ) has reviewed a Significant Permit Revision (SPR) application, submitted by Rogers Group, Inc. - Bloomington Asphalt on October 17, 2007, relating to the replacement of aging equipment in the existing stationary batch mix asphalt plant with new stationary drum hot-mix asphalt plant equipment, intended to increase the production capabilities and allow for future growth. The source has also requested that the FESOP Renewal permit term be extended to ten (10) years.

For this revision, the emission units and pollution control devices for the source have been modified as follows with new equipment shown in **bold** and modifications to existing equipment shown in **bold** and ~~strikethrough~~:

- (1) The following is a list of the emission unit(s) and pollution control device(s) being removed from site:
 - (a) ~~One (1) batch mixer, exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1, capacity: 300 tons per hour of asphalt.~~
 - (b) ~~One (1) aggregate dryer, also exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil, heat input capacity: 79 million British thermal units per hour.~~
 - (c) ~~Four (4) emulsified asphalt storage tanks, identified as TV4, TV5, TV6 and TV7, capacities: 25,000 gallons, each.~~
 - (d) ~~Two (2) liquid asphalt storage tanks, identified as TV2 and TV3, heated by an insignificant 2.50 million British thermal units per hour natural gas fired heater, capacities: 25,000 gallons, each.~~
 - (e) ~~Two (2) 6,000 gallon self contained storage tanks.~~
 - (f) ~~One (1) heavy fuel preheater heat exchanger with no burner.~~
 - (g) ~~Two (2) duplex strainers and associated piping.~~
 - (h) ~~One (1) twenty five (25) gallon per minute oil pump.~~
 - (i) ~~Three (3) silos.~~
- (2) The following is a list of the existing emission unit(s) and pollution control device(s) being kept for use with new plant:
 - (a) One (1) recycled asphalt pavement (RAP) system, **identified as RC1**, consisting of a RAP breaker, screen and conveyors, capacity: 50 tons per hour.
Under NSPS Subpart OOO, this is an affected facility (i.e. crushers and grinding mills) at hot mix asphalt facility that reduces the size of nonmetallic minerals embedded in recycled asphalt pavement.
 - (b) Natural gas/fuel fired combustion source (One (1) oil heater **burner**) with heat input equal to or less than ten million (10,000,000) Btu per hour , capacity: ~~2.50~~ **2.00** million British thermal units per hour.
 - (c) A petroleum fuel, other than gasoline, dispensing facility, identified as FT1, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
 - (d) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (3) The following is a list of the proposed new emission units emission unit(s) and pollution control device(s):
 - (a) **One (1) aggregate rotary dryer and drum hot-mix unit, identified as Unit 01, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil, with a maximum heat input capacity: 175 million British thermal units per hour, and a maximum throughput capacity of 450 tons per hour of asphalt, equipped with one (1) cyclone (identified as CE1) and one (1) jet**

pulse baghouse (identified as CE2) for particulate matter control, and exhausting through stack S1.

Under NSPS subpart I, this is considered an affected hot mix asphalt facility.

- (b) Two (2) 25,000 gallon liquid asphalt storage tanks , identified as LAC1 and LAC2, approved for construction in 2007;**
 - (c) One (1) 30,000 gallon liquid asphalt storage tank, identified as LAC3, approved for construction in 2007;**
 - (d) One (1) 35,000 gallon liquid asphalt storage tank, identified as LAC4, approved for construction in 2007;**
 - (e) One (1) 22,000 gallon #4 fuel oil storage tank, identified as FT2, approved for construction in 2007;**
 - (f) One (1) 30,000 gallon #4 fuel oil storage tank, identified as FT3, approved for construction in 2007;**
 - (g) One (1) 750 BBL (1BBL equals 42 US gallons) Mineral Fill Silo, identified as MS1, approved for construction in 2007;**
 - (h) Six (6) 300 ton hot-mix silos, identified as S1through S6, approved for construction in 2007;**
 - (i) Twelve (12) 30 ton Cold Feed Bins, identified as B1 through B12, approved for construction in 2007;**
 - (j) Two (2) 30 ton Recycle Bins for RAP storage, identified as RB1 and RB2 approved for construction in 2007;**
 - (k) Feeding, conveying, and loading operations, processing a maximum of 450 tons per hour, consisting of;**
 - (1) one (1) collecting conveyor, approved for construction in 2007;**
 - (2) one (1) transfer conveyor, approved for construction in 2007;**
 - (l) Paved and unpaved roads with limited public access. [326 IAC 6-4]**
- (4) The source has requested that the FESOP Renewal permit term be extended to ten (10) years. IDEM agrees with this change because on December 16, 2007, rule revisions to 326 IAC 2-1.1-9 and 326 IAC 2-8-4 were finalized allowing for ten (10) year permit terms on FESOP renewals. The permit has been revised as follows, with deleted language appearing as ~~strike throughs~~ and new language in **bold**:**
- (a) The expiration date on the cover page has been extended by five (5) years as follows:**

Issuance Date: December 7, 2007
Expiration Date: December 7, ~~2012~~ **2017**
 - (b) Condition B.2 has been revised to reflect the ten (10) year permit term.**

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

- (a) This permit, F 105-23908-00045, is issued for a fixed term of ~~five (5)~~ **ten (10)** years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

...

Enforcement Issues

There are no pending enforcement actions.

Unpermitted Emissions Units and Pollution Control Equipment

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

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S1	Drum Mixer/Rotary Dryer	18.0	12.0	90,000	350.0

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Level Determination – FESOP Revision

Pursuant to 326 IAC 2-7-1(29), Potential to Emit is defined as “the maximum capacity of a stationary source or emission 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, including 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, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-8-11.1. This table summarizes the potential to emit (PTE), reflecting all limits, of the emission units, before controls. Any control equipment is considered enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Pollutant	PTE of revision (tons/year)
PM	55,446.07
PM ₁₀	12,887.87
SO ₂	804.83
NO _x	257.33
VOC	65.57
CO	266.40
HAPs	79.14

Pursuant to 326 IAC 2-8-11.1(f)(1)(E) and 326 IAC 2-8-11.1(g)(2), the FESOP Renewal is being modified through a Significant Permit Revision, since this modification has the potential to emit of

all criteria pollutants greater than or equal to twenty-five (25) tons per year and because the FESOP limits are being adjusted to reflect the new equipment.

Potential to Emit of the Entire Source after Issuance of the FESOP Revision

The table below summarizes the potential to emit, reflecting all limits, of the entire source. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Values shown as strikethrough represent the PTE before revision and values shown in bold represent the PTE after revision.

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

Potential to Emit of the Entire Source (tons/year)							
Process/Emission Unit	PM	PM₁₀	SO₂	NO_x	VOC	CO	HAPs
Ducted Emissions							
Fuel Combustion (worst case)	21.28	16.96	98.13	98.00	2.79	29.40	6.40
Dryer/Mixer ⁽¹⁾	180.50	76.00	27.55	26.13	95.00	96.23	5.06
Fugitive Emissions							
Asphalt Load-Out and On-Site Yard ⁽¹⁾	0.25	0.25	0	0	2.35	0.81	0.05
Hot Oil and Asphalt Heaters	0	0	0		0.03	3.12	0.04
Material Storage Piles	1.60	0.56	0	0	0	0	0
Material Processing and Handling ⁽¹⁾	3.07	1.45	0	0	0	0	0
Material Crushing, Screening, and Conveying ⁽¹⁾	15.07	5.51	0	0	0	0	0
Paved and Unpaved Roads (worst case) ⁽¹⁾	43.41	11.06	0	0	0	0	0
Volatile Organic Liquid Storage Vessels					negl.		negl.
Total	243.90	94.83	98.13	98.00	97.38	96.55	5.00 single / 6.49 total
PSD Major Source Thresholds	250	250	250	250	250	250	< 10 single / < 25 combined
Title V Major Source Thresholds	NA	100	100	100	100	100	< 10 single / < 25 combined
(1) PTE after Production Limitation. * US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. **negl. = negligible							

- (a) **FESOP Status**
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).
- (b) **PSD Minor Source**
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (c) **Emission limitations**
Emission limitations are described under "326 IAC 2-2 (Prevention of Significant Deterioration (PSD))" and "326 IAC 2-8-4 (FESOP)" in the State Rule Applicability - Entire Source section of this document.
- (d) **Fugitive Emissions**
Fugitive Emissions are counted toward the determination of PSD applicability because while this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2; there is an applicable New Source Performance Standard that was in effect on August 7, 1980.

Federal Rule Applicability Determination

The following federal rules are applicable to the source:

- (a) This stationary drum hot mix asphalt plant, approved for construction in 2008, is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90, Subpart I) because it meets the definition of a hot mix asphalt facility pursuant to the rule and it was constructed after June 11, 1973. This rule limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf) and also limits visible emissions to 20% opacity.

The source will be able to comply with this rule by using the Cyclone (CE01) and Jet Pulse Baghouse (CE02) to limit particulate matter emissions from the aggregate dryer/mixer to less than 0.04 gr/dscf.

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

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

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

- (b) The one (1) 22,000 gallon storage tank, identified as FT2, the two (2) 25,000 gallon storage tanks, identified as LAC1 and LAC2, two (2) 30,000 gallon storage tanks, identified as FT3 and LAC3, and the one (1) 35,000 gallon storage tank, identified as LAC4, are each not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels". Each storage tank has a capacity greater than 75 m³ (19,813 gallons) but less than 151 m³ (39,890 gallons) and the liquid stored in the tank has a maximum true vapor pressures of less than 15.0 kPa. Therefore, pursuant to 40 CFR 60.110b(b),

these tanks are exempt from this rule and the requirements of this rule are not included in the permit for these tanks.

- (c) When the stationary asphalt plant is using RAP, the asphalt plant is subject to the New Source Performance Standard Subpart OOO, 40 CFR 60.670 through 60.676. Non-applicable portions of this rule (Subpart OOO) are not included in this permit. The crushing, screening, and conveying operations are subject to the following requirements of 40 CFR 60, Subpart OOO:
 - (1) 40 CFR 60.670
 - (2) 40 CFR 60.671
 - (3) 40 CFR 60.672
 - (4) 40 CFR 60.673
 - (5) 40 CFR 60.674
 - (6) 40 CFR 60.675
 - (7) 40 CFR 60.676
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) included in the permit for this source, because it is not a major source of HAP emissions.
- (e) The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not included in this permit. These requirements apply to a Part 70 source that involves a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, which meets the following criteria:
 - (1) The unit is subject to an emission limitation or standard for an applicable regulated air pollutant;
 - (2) The unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard; and
 - (3) The unit has a potential to emit before controls equal to or greater than the applicable Part 70 major source threshold for the regulated pollutant.

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

State Rule Applicability Determination - Revision
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The following state rules are applicable to the source due to the modification:

State Rule Applicability – Entire Source

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

This source, constructed in 2007, after the applicability date of August 7, 1977, is not considered a major source because it is not one of the 28 listed source categories and shall continue to limit criteria pollutant emissions to less than 250 tons per year as follows: Particulate matter emissions from the aggregate dryer/mixer shall not exceed 0.380 pounds of PM per ton of asphalt mix based on a maximum throughput of 950,000 tons of asphalt mix per twelve (12) consecutive month period. This is equivalent to 180.50 tons per year and will limit source wide PM emissions to less than 243.9 tons per year. VOC, SO₂, CO and PM-10 emissions shall be limited to less than 100 ton per year as described under the FESOP section below. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

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

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the potential to emit greater than or equal to 10 tons per year of a single HAP or 25 tons per year of the combination of HAPs, and is constructed or reconstructed after July 27, 1997, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). This source has limited single HAP and combined HAP emissions to less than 10 and 25 tons per year, respectively, therefore, this rule does not apply. HCl emissions shall be limited to less than 10 tons per year as described under the FESOP section below.

326 IAC 2-6 (Emission Reporting)

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

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of SO₂, NO_x, PM₁₀, VOC, and CO shall be limited to less than one hundred (100) tons per year, the amount of each individual HAP shall be limited to less than ten (10) tons per year, and the amount of any combination of HAPs shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7 (Part 70), and 326 IAC 2-2 (PSD) are not applicable. The SO₂, NO_x, PM₁₀, VOC, and CO emissions shall be limited as follows:

- (a) Pursuant to 326 IAC 2-8-4, the SO₂ emissions from the aggregate dryer/mixer burner shall be limited as follows:
 - (1) The usage of No. 4 fuel oil for the 175 MMBtu per hour aggregate dryer/mixer burner shall be limited to less than 2,600,000 gallons or equivalent per twelve (12) consecutive month period, with compliance determined at the end of each month.

For the purpose of determining compliance with this limit:

- (A) Every 125 million cubic feet of natural gas shall be equivalent to one thousand (1000) gallons of No. 4 fuel oil. However, the natural gas usage shall in no case exceed 700 million cubic feet per twelve (12) consecutive month period.
- (B) Every 0.96 gallons of No. 2 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 2 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.
- (C) Every 0.96 gallons of No. 6 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 6 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.
- (D) Every 3,750 gallons of Propane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Propane usage shall in no case exceed 10,300,000 gallons per twelve (12) consecutive month period.
- (E) Every 3,788 gallons of Butane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Butane usage shall in no case exceed 9,300,000 gallons per twelve (12) consecutive month period.

- (F) Every 0.51 gallons of waste oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the waste oil usage shall in no case exceed 1,330,000 gallons per twelve (12) consecutive month period.
- (2) The sulfur content of the No. 2, No. 4, and No. 6 fuel oils shall not exceed 0.5% by weight.
- (3) The sulfur content of the waste oil shall be limited to 1.00% by weight. Compliance with these limits, combined with the SO₂ emissions from other units at the source, will limit source-wide SO₂ emissions to less than 100 tons per twelve (12) consecutive month period. Compliance with these limits will render 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD) not applicable.

See Appendix A for the detailed calculations.

- (b) Pursuant to 326 IAC 2-8-4, the NO_x emissions from the aggregate dryer/mixer burner shall be limited as follows:
 - (1) Every 0.17 million cubic feet of natural gas shall be equivalent to one thousand (1000) gallons of No. 4 fuel oil. However, the natural gas usage shall in no case exceed 700 million cubic feet per twelve (12) consecutive month period.
 - (2) Every 1.96 gallons of No. 2 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 2 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.
 - (3) Every 1.00 gallons of No. 6 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 6 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.
 - (4) Every 2.47 gallons of Propane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Propane usage shall in no case exceed 10,300,000 gallons per twelve (12) consecutive month period.
 - (5) Every 2.24 gallons of Butane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Butane usage shall in no case exceed 9,300,000 gallons per twelve (12) consecutive month period.
 - (6) Every 2.47 gallons of waste oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the waste oil usage shall in no case exceed 1,330,000 gallons per twelve (12) consecutive month period.

Compliance with these limits, combined with the NO_x emissions from other units at the source, will limit source-wide NO_x emissions to less than 100 tons per twelve (12) consecutive month period. Compliance with these limits will render 326 IAC 2-7 (Part 70 Permit Program), 326 IAC 2-2 (PSD), and 326 IAC 2-3 (Emission Offset) not applicable.

See Appendix A for the detailed calculations.

- (c) Pursuant to 326 IAC 2-8-4, the emissions of PM₁₀, CO, and VOC from the aggregate dryer/mixer shall be limited as follows:
 - (1) The asphalt production rate shall be limited to less than 950,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

- (2) PM₁₀ emissions from the aggregate dryer/mixer shall be limited to less than 0.160 pounds of PM₁₀ per ton of asphalt produced.
- (3) CO emissions from the aggregate dryer/mixer shall be limited to less than 0.195 pounds of CO per ton of asphalt produced.
- (4) VOC emissions from the aggregate dryer/mixer shall be limited to less than 0.20 pounds of VOC per ton of asphalt produced.

Compliance with these limits, combined with the emissions from all other emission units at this source, will render 326 IAC 2-7 (Part 70 Permit Program), and 326 IAC 2-2 (PSD) not applicable.

See Appendix A for the detailed calculations.

- (d) Pursuant to 326 IAC 2-8-4(1), the following additional limits shall apply to the aggregate dryer/mixer burner:
 - (1) The chlorine content of the waste oil used in the burner for the aggregate dryer shall not exceed one hundred fourteen hundredths of a percent (0.114%) by weight.
 - (2) The usage of waste oil in the burner for the aggregate dryer shall be limited to less than 1,330,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
 - (3) The HCl emissions from the burner for the aggregate dryer shall be limited to less than 7.5 pounds of HCl per 1,000 gallons of waste oil burned.

These limits are required in order to limit the source-wide emissions of HCl to less than 10 tons per year. Compliance with these limits will also limit source-wide emissions of combined HAPs to less than 25 tons per year. Therefore, compliance with these limits renders 326 IAC 2-7 (Part 70) not applicable.

See Appendix A for the detailed calculations.

- (e) Pursuant to 326 IAC 2-8, the Permittee shall control PM and PM₁₀ emissions from paved and unpaved roads according to the fugitive dust plan submitted on December 13, 1996, which is as described under the 326 IAC 6-5 - Fugitive Particulate Emissions Limitations section below.

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 6-3 (Particulate Emission Limitations for Manufacturing Processes)

The aggregate dryer/mixer is subject to 40 CFR 60, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities) and incorporated by reference through 326 IAC 12. Pursuant to

326 IAC 6-3-1(c)(5), the aggregate dryer/mixer is not subject to the requirements of 326 IAC 6-3 because it is subject to the more stringent particulate limit established in 326 IAC 12.

326 IAC 6-4 (Fugitive Dust Emissions)

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).

326 IAC 6-5 (Fugitive Particulate Emissions Limitations)

This rule requires a fugitive dust plan to be submitted. The plan was submitted on December 13, 1996, reviewed, and approved. The plan consists of:

- (a) Cleaning paved roads and parking lots by sweeping on an as needed basis (monthly minimum). Power brooming paved roads and parking lots while wet.
- (b) Paving unpaved roads and parking lots with asphalt. Treating with emulsified asphalt as needed. Treating with water as needed. Double chip and seal the road surface and maintain on an as needed basis.
- (c) Maintain minimum size and number of stock piles of aggregate. Treat around the stockpile with emulsified asphalt on an as needed basis. Treat around the stockpile with water as needed. Treat the stockpiles with water as needed.
- (d) Apply water at the feed and the intermediate points of the conveyers as needed.
- (e) Minimize the vehicular distance between transfer points of aggregates. Enclose the transfer points. Apply water to the transfer points on an as needed basis.
- (f) Tarp aggregate hauling vehicles. Maintain vehicle bodies to prevent leakage. Spray aggregates with water during transport. Maintain a 10 mile per hour speed limit in the yard.
- (g) Reduce free fall distance during loading and unloading. Reduce the rate of discharge of the aggregate. Spray the aggregate with water on an as needed basis.

326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)

The aggregate dryer/mixer burner (Unit 01) is subject to 326 IAC 7-1.1 because it has potential SO₂ emissions of greater than 25 tons per year (limited potential emissions are 98.13 tons per year). Pursuant to this rule, sulfur dioxide emissions from the dryer/mixer burner shall be limited to five-tenths (0.5) pounds per million Btu for distillate oil combustion (including No. 2 fuel oil, No. 4 fuel oil, and diesel fuel oil) and one and six-tenths (1.6) pounds per million Btu heat input for residual oil (including No. 5 fuel oil, No. 6 fuel oil, and used/waste oil) combustion. This equates to a maximum allowable sulfur content of (0.5% by weight) for the distillate fuel oils and (1.0% by weight) for residual oil.

The hot oil heater, identified as emission unit No. 2, is not subject to the requirements of 326 IAC 7-1.1 because it has potential SO₂ emissions of less than 25 tons per year. Therefore, the requirements of this rule are not included in the permit for this facility.

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

Pursuant to this rule, the source shall submit reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate (pounds SO₂ per MMBtu), to the OAQ upon request.

326 IAC 8-1-6 (BACT)

The aggregate dryer/mixer has a limited potential to emit of 24.7 tons per year of VOC, based on a limited throughput of 950,000 tons per twelve (12) consecutive month period and a VOC

limit of 0.052 pound of VOC per ton of hot mix asphalt produced. Compliance with these limits will render the requirements of 326 IAC 8-1-6 not applicable. Therefore the requirements of 326 IAC 8-1-6 are not included in the permit for this facility.

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

This source does not have the capacity to produce cutback or emulsified asphalt. Therefore, the requirements of 326 IAC 8-5-2 are not included in the permit for this source.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

Pursuant to 326 IAC 8-4-1 (Applicability) and 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities), all petroleum liquid storage vessels with capacities greater than one hundred fifty thousand (150,000) liters (39,000 gallons) containing VOC whose true vapor pressure is greater than 10.5 kPa (1.52 psi) shall comply with the requirements for external fixed and floating roof tanks and the specified record keeping and reporting requirements. Tanks FT2, FT3 and LAC1-LAC4 each have maximum capacities less than 39,000 gallons. Therefore, the requirements of this rule are not applicable to these facilities and are not included in this permit.

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

The three (3) liquid asphalt storage tanks and the one (2) fuel oil storage tanks are not subject to the requirements of this rule because the source is not located in Clark, Floyd, Lake, or Porter Counties.

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

This source does not operate a Portland cement kiln or a blast furnace gas boiler with a heat input greater than two hundred fifty million (250,000,000) British thermal units per hour. The one 100 million Btu burner is not subject to this rule, therefore the requirements of 326 IAC 10-3 are not included in the permit for this source.

326 IAC 12-1 (New Source Performance Standards)

- (a) The hot mix asphalt plant is required to comply with the requirements of 40 CFR 60.90, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, as described in the "Federal Rule Applicability" section of this TSD.
- (b) The recycled asphalt pavement (RAP) system is required to comply with the requirements of 40 CFR 60.90, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, as described in the "Federal Rule Applicability" section of this TSD.

329 IAC 13 (Used Oil Requirements)

The aggregate dryer/mixer burner (Unit 01) is subject to 329 IAC 13 because it has the potential to burn residual oil (including No. 5 fuel oil, No. 6 fuel oil, and used/waste oil). Therefore, 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.

Compliance Determination and Monitoring Requirements

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

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

The compliance determination requirements applicable to this modification are as follows:

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

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
Aggregate Mixer/Dryer	Jet pulse baghouse (CE2)	180 days	PM/ PM ₁₀	Once every 5 years	0.380 lb PM/ton of asphalt; 0.160 lb PM ₁₀ /ton of asphalt

- (1) Within sixty (60) days after achieving maximum capacity, but not later than one hundred and eighty (180) days after startup, in order to demonstrate compliance with 326 IAC 2-2, 326 IAC 6.5, and 326 IAC 2-8, the Permittee shall perform PM and PM₁₀ testing for the aggregate dryer/mixer utilizing methods as approved by the Commissioner. PM₁₀ includes filterable and condensable particulate matter.

This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted according to the provisions of 326 IAC 3-6 (Source Sampling Procedures).

In order to comply with the PM and PM₁₀ limitations in the permit, the cyclone (CE1) and jet pulse baghouse (CE2) for the aggregate dryer/mixer shall be in operation and control emissions from the aggregate dryer/mixer at all times when the aggregate dryer/mixer is in operation. In the event that cyclone and/or 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.

- (2) Compliance with the SO₂ emission limitations 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 input when operating on distillate oil (including No. 2 fuel oil, No. 4 fuel oil, and diesel fuel oil) and one and six-tenths (1.6) pounds per million Btu heat input when operating on residual oil (including No. 5 fuel oil, No. 6 fuel oil, and used/waste oil).
 - (i) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (ii) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (a') Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (b') If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (B) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the aggregate dryer and batch mixer 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.

- (3) The Permittee shall demonstrate compliance with the NO_x and CO emission limitations by keeping records of the annual asphalt production rate.
- (4) The Permittee shall demonstrate that the chlorine content of the fuel used does not exceed eleven hundredths of a percent (0.114%) by weight when operating on waste oil, by providing vendor analysis of fuel delivered accompanied by a vendor certification.
- (5) Opacity testing utilizing 40 CFR Part 60 Appendix A, Method 9, to demonstrate compliance with the opacity limitation of 40 CFR 60, Subpart I.

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

The aggregate dryer/mixer is controlled by a cyclone (CE1) and jet pulse baghouse (CE2). To render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70 Permit Program) not applicable, the PM and PM₁₀ emissions from the aggregate dryer/mixer are limited to 0.380 and 0.160 pounds per ton of asphalt, respectively. PM and PM₁₀ testing is required in order to demonstrate with these limits.

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

- (b) The aggregate dryer/mixer, baghouse stack exhaust, the conveying, screening, and material transfer points have applicable compliance monitoring conditions as specified below:

Control	Parameter	Frequency	Range	Excursions and Exceedances
Conveyors, material transfer points and aggregate dryer/mixer stack (S1) exhaust	Visible Emissions	Daily	Normal-Abnormal	Response Steps
Baghouse (CE1) for the aggregate dryer/mixer	Water Pressure Drop	Daily	3.0 to 6.0 inches	Response Steps
	Inlet Temperature		200 and 400 degrees Fahrenheit	

- (1) Visible emission notations of the aggregate dryer/mixer , baghouse stack exhaust, and the conveying, and material transfer points shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (2) 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.
- (3) 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.
- (4) 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.
- (5) 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.
- (6) The Permittee shall record the pressure drop across the baghouse used in conjunction with the aggregate dryer/mixer , at least once per day when the aggregate dryer/mixer is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 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.

- (7) 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).

- (8) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (9) Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

These monitoring conditions are necessary because the cyclone (CE1) and baghouse (CE1) used in conjunction with the aggregate dryer/mixer must operate properly to ensure compliance with 40 CFR 60, Subpart I, 326 IAC 2-8 (FESOP), and the limits that render 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70 Permit Program) not applicable.

Proposed Changes

The changes listed below have been made to the Federally Enforceable State Operating Permit, No. F063-21574-00046. Deleted language appears as ~~strike throughs~~ and new language appears in **bold**:

...

SECTION A

SOURCE SUMMARY

...

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

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

- (a) ~~One (1) batch mixer, exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1, capacity: 300 tons per hour of asphalt.~~
- (b) ~~One (1) aggregate dryer, also exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil, heat input capacity: 79 million British thermal units per hour.~~
- (c) ~~Four (4) emulsified asphalt storage tanks, identified as TV4, TV5, TV6 and TV7, capacities: 25,000 gallons, each.~~
- (d) ~~Two (2) liquid asphalt storage tanks, identified as TV2 and TV3, heated by an insignificant 2.50 million British thermal units per hour natural gas fired heater, capacities: 25,000 gallons, each.~~
- (a-e) One (1) recycled asphalt pavement (RAP) system, **identified as RC1**, consisting of a RAP breaker, screen and conveyors, capacity: 50 tons per hour.

Under NSPS Subpart OOO, this is an affected facility (i.e. crushers and grinding mills) at hot mix asphalt facility that reduces the size of nonmetallic minerals embedded in recycled asphalt pavement.

- (b) **One (1) aggregate rotary dryer and drum hot-mix unit, approved for construction in 2008, identified as Unit 01, fired by natural gas, No. 2 distillate fuel oil, No. 4**

distillate fuel oil or reused (waste) oil, with a maximum heat input capacity: 175 million British thermal units per hour, and a maximum throughput capacity of 450 tons per hour of asphalt, equipped with one (1) cyclone (identified as CE1) and one (1) jet pulse baghouse (identified as CE2) for particulate matter control, and exhausting through stack S1.

Under NSPS subpart I, this is considered an affected hot mix asphalt facility.

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

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

- (a) Natural gas/fuel fired combustion source (One (1) oil heater **burner**) with heat input equal to or less than ten million (10,000,000) Btu per hour , capacity: ~~2.50~~ **2.00** million British thermal units per hour.
- (b) A petroleum fuel, other than gasoline, dispensing facility, identified as FT1, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment; and
- ~~(d) Two (2) 6,000 gallon self contained storage tanks.~~
- ~~(e) One (1) heavy fuel preheater heat exchanger with no burner.~~
- ~~(f) Two (2) duplex strainers and associated piping.~~
- ~~(g) One (1) twenty five (25) gallon per minute oil pump.~~
- ~~(h) Three (3) silos.~~
- (d) Two (2) 25,000 gallon self contained liquid asphalt storage tanks , identified as LAC1 and LAC2, approved for construction in 2008;**
- (e) One (1) 30,000 gallon self contained liquid asphalt storage tank, identified as LAC3, approved for construction in 2008;**
- (f) One (1) 35,000 gallon self contained liquid asphalt storage tank, identified as LAC4, approved for construction in 2008;**
- (g) One (1) 22,000 gallon #4 fuel oil self contained storage tank, identified as FT2, approved for construction in 2008;**
- (h) One (1) 30,000 gallon #4 fuel oil self contained storage tank, identified as FT3, approved for construction in 2008;**
- (i) One (1) 750 BBL (1BBL equals 42 US gallons) Mineral Fill Silo, identified as MS1, approved for construction in 2008;**
- (j) Six (6) 300 ton hot-mix silos, identified as S1 through S6, approved for construction in 2008;**
- (k) Twelve (12) 30 ton Cold Feed Bins, identified as B1 through B12, approved for construction in 2008;**

- (l) **Two (2) 30 ton Recycle Bins for RAP storage, identified as RB1 and RB2, approved for construction in 2008;**
- (m) **Feeding, conveying, and loading operations, processing a maximum of 450 tons per hour, consisting of;**
 - (1) **one (1) collecting conveyor, approved for construction in 2008;**
 - (2) **one (1) transfer conveyor, approved for construction in 2008;**
- (n) **Paved and unpaved roads with limited public access. [326 IAC 6-4]**

...

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

- (a) This permit, F 105-23908-00045, is issued for a fixed term of ~~five (5)~~ **ten (10)** years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

...

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: **Hot-Mix** Asphalt Plant

- ~~(a) One (1) batch mixer, exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1, capacity: 300 tons per hour of asphalt.~~
- ~~(b) One (1) aggregate dryer, also exhausting through a cyclone (CE2) and jet pulse baghouse (CE1) and exiting through stack S1, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil, heat input capacity: 79 million British thermal units per hour.~~
- ~~(c) Two (2) liquid asphalt storage tanks, identified as TV2 and TV3, heated by an insignificant 2.50 million British thermal units per hour natural gas fired heater, capacities: 25,000 gallons, each.~~
- ~~(d) Four (4) emulsified asphalt storage tanks, identified as TV4, TV5, TV6 and TV7, capacities: 25,000 gallons, each.~~
- (a-e) One (1) recycled asphalt pavement (RAP) system, **identified as RC1**, consisting of a RAP breaker, screen and conveyors, capacity: 50 tons per hour.

Under NSPS Subpart OOO, this is an affected facility (i.e. crushers and grinding mills) at hot mix asphalt facility that reduces the size of nonmetallic minerals embedded in recycled asphalt pavement.

- (b) **One (1) aggregate rotary dryer and drum hot-mix unit, approved for construction in 2008, identified as Unit 01, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil, with a maximum heat input capacity: 175 million British thermal units per hour, and a maximum throughput capacity of 450 tons per hour of asphalt, equipped with one (1) cyclone (identified as CE1) and one (1) jet pulse baghouse (identified as CE2) for particulate matter control, and exhausting through stack S1.**

Under NSPS subpart I, this is considered an affected hot mix asphalt facility.

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

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

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4] [326 IAC 2-2] [326 IAC 8-5-2]

- (a) The VOC emissions from the use of liquid binders in cold mix, including emulsified, asphalt production shall be limited to less than 74.3 tons of VOC is emitted per twelve (12) consecutive month period, with compliance determined at the end of each month. This will limit the potential to emit VOC to less than 74.3 tons per year from VOC usage, and the total source potential to emit VOC to less than 100 tons per year, including the heater, the aggregate dryer/mixer, storage, silo filling and truck load out. Thus, this limit renders 326 IAC 2-7, Part 70, and 326 IAC 2-2, PSD, not applicable based on VOC emissions.
- (b) Pursuant to 326 IAC 8-5-2, the Permittee shall not allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion, except as used for the following purposes:
- (1) penetrating prime coating;
 - (2) stockpile storage mix; and
 - (3) application during the months of November, December, January, February, and March.

D.1.1.4 Particulate Matter (PM) [326 IAC 2-2]

The potential to emit PM from the aggregate dryer/mixer shall be less than **0.380** ~~0.968~~ pounds per ton of asphalt processed, and the amount of asphalt processed shall not exceed **950,000** ~~481,909.8~~ tons per twelve (12) consecutive month period, with compliance determined at the end of each month. This shall limit the potential to emit PM to less than 233 tons per year from the aggregate dryer/mixer and less than 250 tons per year from the entire source, including PM emissions from the insignificant heater, screening and conveying, storage, silo filling and truck load out. Compliance with these limitations shall render 326 IAC 2-2, PSD, not applicable based on PM emissions.

D.1.2 Particulate (PM₁₀), Nitrogen Oxides (NO_x) and Carbon Monoxide (CO) and Volatile Organic Compound (VOC) Limitations [326 IAC 2-8-4] [326 IAC 2-2]

- (a) Pursuant to 326 IAC 2-8-4, the amount of asphalt processed shall not exceed ~~481,909.8~~ **950,000** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The potential to emit PM₁₀ from the aggregate dryer/mixer shall be less than **0.160** ~~0.393~~ pounds per ton of asphalt processed. Together with (a) of this condition, this shall limit the potential to emit PM₁₀ to **76.0** ~~94.7~~ tons per year from the aggregate dryer/mixer and less than 100 tons per year from the entire source, including PM₁₀ emissions from the insignificant heater ~~burner~~, screening and conveying, storage, silo filling and truck load out.
- (c) The potential to emit NO_x from the aggregate dryer/mixer shall be less than 0.406 pounds per ton of asphalt processed. Together with (a) of this condition, this shall limit the potential to emit NO_x to 97.9 tons per year from the aggregate dryer/mixer and less than 100 tons per year from the entire source, including NO_x emissions from the insignificant heater.

- (c) The potential to emit CO from the aggregate dryer/mixer shall be less than **0.195** ~~0.400~~ pounds per ton of asphalt processed. ~~Together with (a) of this condition, this shall limit the potential to emit CO to 92.63 96.4 tons per year from the aggregate dryer/mixer and less than 100 tons per year from the entire source, including CO emissions from the insignificant heater, silo filling and truck load out.~~
- (d) The potential to emit VOC from the aggregate dryer/mixer shall be less than **0.200** ~~0.400~~ pounds per ton of asphalt processed. ~~Together with (a) of this condition, this shall limit the potential to emit CO to 95.00 96.4 tons per year from the aggregate dryer/mixer and less than 100 tons per year from the entire source, including VOC emissions from the insignificant heater, silo filling and truck load out.~~

Compliance with these limitations, **combined with the limits and emissions from other emission units at this source, will satisfy 326 IAC 2-8-4 (FESOP), and will** ~~shall~~ render 326 IAC 2-7, Part 70, ~~not applicable based on PM₁₀, NO_x and CO emissions, and 326 IAC 2-2, PSD, not applicable based on PM₁₀ and CO and VOC emissions.~~

D.1.3 Sulfur Dioxide (SO₂) [326 IAC 2-8-4] [326 IAC 7-1.1-1] [326 IAC 7-2-1] [326 IAC 2-2] [326 IAC 2-3]

- (a) ~~Pursuant to 326 IAC 2-8-4, the use of No. 2 distillate fuel oil at the aggregate dryer/mixer shall be limited to less than 2,618,310 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. Each gallon of No. 4 distillate fuel oil used shall be considered equal to using 1.06 gallons of No. 2 distillate fuel oil and each gallon of waste oil used shall be considered equal to using 1.13 gallons of No. 2 distillate fuel oil. The sulfur content of the waste oil shall not exceed three-quarters of a percent (0.75%) by weight and the sulfur content of the No. 2 and No. 4 fuel oils shall not exceed one-half of a percent (0.5%) by weight. This will limit SO₂ emissions from the use of distillate fuel oils or waste oil to less than 99.0 tons per year and the potential to emit SO₂ from the entire source to less than 100 tons per year, including SO₂ emissions from the aggregate dryer/burner and heater. Compliance with these limitations shall render 326 IAC 2-7, Part 70, not applicable based on SO₂ emissions.~~
- (b) ~~Pursuant to 326 IAC 7-1.1, the SO₂ emissions from the aggregate dryer shall not exceed five tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil or No. 4 distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.~~
- (c) ~~Pursuant to 326 IAC 7-1.1, the SO₂ emissions from the aggregate dryer shall not exceed one and six-tenths (1.6) pounds per million British thermal unit heat input when operating on re-refined (waste) oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.~~
- (a) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 175 million Btu per hour burner for the aggregate dryer/mixer shall be limited to one-half (0.5) pounds per million Btu heat input or a sulfur content of less than or equal to one-half percent (0.5%) by weight when using distillate oil (including No. 2 fuel oil, No. 4 fuel oil, and diesel fuel oil).
- (b) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 175 million Btu per hour burner for the aggregate dryer/mixer shall be limited to one and six-tenths (1.6) pounds per million Btu heat input or a sulfur content of less than or equal to one and five-tenths percent (1.5 %) by weight when using re-refined waste oil. The source has accepted a sulfur content limit of one percent (1.0%) for residual oil (including No. 5 fuel oil, No. 6 fuel oil, and used/ re-refined waste oil).

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

D.1.4 Sulfur Dioxide (SO₂) Emissions [326 IAC 2-8-4] [326 IAC 2-2]

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

- (a) The usage of No. 4 fuel oil in the 175 MMBtu per hour burner for the aggregate dryer/mixer burner shall be limited to less than 2,600,000 gallons or equivalent per twelve (12) consecutive month period, with compliance determined at the end of each month.

For the purpose of determining compliance with this limit:

- (1) Every 125 million cubic feet of natural gas shall be equivalent to one thousand (1000) gallons of No. 4 fuel oil. However, the natural gas usage shall in no case exceed 700 million cubic feet per twelve (12) consecutive month period.
 - (2) Every 0.96 gallons of No. 2 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 2 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.
 - (3) Every 0.96 gallons of No. 6 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 6 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.
 - (4) Every 3,750 gallons of Propane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Propane usage shall in no case exceed 10,300,000 gallons per twelve (12) consecutive month period.
 - (5) Every 3,788 gallons of Butane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Butane usage shall in no case exceed 9,300,000 gallons per twelve (12) consecutive month period.
 - (6) Every 0.51 gallons of waste oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the waste oil usage shall in no case exceed 1,330,000 gallons per twelve (12) consecutive month period.
- (b) The sulfur content of the waste oil shall be limited to one percent (1.00%) by weight.
- (c) The sulfur content of the No. 2, No. 4, and No. 6 fuel oils shall not exceed one-half percent (0.5%) by weight.

Compliance with these limits, combined with the SO₂ emissions from other units at the source, will limit source-wide SO₂ emissions to less than 100 tons per twelve (12) consecutive month period. Compliance with these limits will render 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD) not applicable.

D.1.5 Nitrogen Oxides (NO_x) Emissions [326 IAC 2-8-4] [326 IAC 2-2]

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

- (a) **The usage of No. 4 fuel oil in the 175 MMBtu per hour burner for the aggregate dryer/mixer burner shall be limited to less than 2,600,000 gallons or equivalent per twelve (12) consecutive month period, with compliance determined at the end of each month.**
For the purpose of determining compliance with this limit:
- (1) **Every 0.17 million cubic feet of natural gas shall be equivalent to one thousand (1000) gallons of No. 4 fuel oil. However, the natural gas usage shall in no case exceed 700 million cubic feet per twelve (12) consecutive month period.**
 - (2) **Every 1.96 gallons of No. 2 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 2 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.**
 - (3) **Every 1.00 gallons of No. 6 fuel oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the No. 6 fuel oil usage shall in no case exceed 2,500,000 gallons per twelve (12) consecutive month period.**
 - (4) **Every 2.47 gallons of Propane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Propane usage shall in no case exceed 10,300,000 gallons per twelve (12) consecutive month period.**
 - (5) **Every 2.24 gallons of Butane shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the Butane usage shall in no case exceed 9,300,000 gallons per twelve (12) consecutive month period.**
 - (6) **Every 2.47 gallons of waste oil shall be equivalent to one (1) gallon of No. 4 fuel oil. However, the waste oil usage shall in no case exceed 1,330,000 gallons per twelve (12) consecutive month period.**

Compliance with these limits, combined with the NOx emissions from other units at the source, will limit source-wide NOx emissions to less than 100 tons per twelve (12) consecutive month period. Compliance with these limits will render 326 IAC 2-7 (Part 70 Permit Program), 326 IAC 2-2 (PSD), and 326 IAC 2-3 (Emission Offset) not applicable.

D.1.6 ~~5~~ Hydrogen Chloride (HCl) [326 IAC 2-8-4]

~~The input of waste oil to the aggregate dryer/mixer shall be limited to less than 750,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month, and the chlorine content of the waste oil shall not exceed 0.4%. This will limit emissions of a single HAP (HCl) to less than 9.9 tons per year. Compliance with this limit renders the requirements of 326 IAC 2-7 not applicable.~~

- (1) **The usage of waste oil in the 175 MMBtu per hour burner for the aggregate dryer shall be limited to less than 1,330,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.**
- (2) **The chlorine content of the waste oil used in the 175 MMBtu per hour burner for the aggregate dryer shall not exceed one hundred fourteen hundredths of a percent (0.114%) by weight.**
- (3) **The HCl emissions from the in the 175 MMBtu per hour burner for the aggregate dryer shall be limited to less than 7.5 pounds of HCl per 1,000 gallons of waste oil burned.**

These limits are required in order to limit the source-wide emissions of HCl to less than 10 tons per year. Compliance with these limits will also limit source-wide emissions of combined HAPs to less than 25 tons per year. Therefore, compliance with these limits renders 326 IAC 2-7 (Part 70) not applicable.

D.1.7 Used Oil Requirements [329 IAC 13]

The waste oil burned in the aggregate dryer/mixer 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.

D. 1.8 Opacity Emission Limitation [326 IAC 5-1][326 IAC 12][40 CFR 60.90 Subpart I]

- (a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity from the source shall meet the following, unless otherwise stated in this permit:
 - (1) Opacity from the source 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.
 - (2) Opacity from the source 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (b) Opacity from the hot mix asphalt facility which 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 the emission control system shall not exceed 20%. This assures compliance with opacity limit of the New Source Performance Standards, 326 IAC 12 (40 CFR 60.92)

D.1.9 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 the aggregate dryer and drum batch-mixer unit and its control device.

Compliance Determination Requirements

D.1.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within sixty (60) days after achieving maximum capacity, but not later than one hundred and eighty (180) days after startup, No later than October 3, 2007, in order to demonstrate

compliance with Conditions ~~D.1.2(b)~~ **D.1.1** and **D.1.2(b)**, the Permittee shall perform PM and PM₁₀ testing of the aggregate dryer/mixer utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C - Performance Testing.

D.1.8 Volatile Organic Compounds (VOC)

- (a) ~~In order to comply with Condition D.1.1, the Permittee shall limit the total VOC usage of any selected binder to less than the stated limit in (c) for that binder. When more than one (1) binder is used, the formula in (c)(6) must be applied so that the total VOC emitted is less than 74.3 tons of VOC is emitted per twelve (12) consecutive month period.~~
- (b) ~~Liquid binders used in the production of cold mix asphalt shall be defined as follows:~~
- ~~(1) Cut back asphalt rapid cure, containing a maximum of 25.3% VOC solvent by weight in the liquid binder, with 95% by weight of the VOC solvent evaporating.~~
 - ~~(2) Cut back asphalt medium cure, containing a maximum of 28.6% VOC solvent by weight in the liquid binder, with 70% by weight of the VOC solvent evaporating.~~
 - ~~(3) Cut back asphalt slow cure, containing a maximum of 20% VOC solvent by weight in the liquid binder, with 25% by weight of the VOC solvent evaporating.~~
 - ~~(4) Emulsified asphalt with solvent, containing a maximum of 15% VOC solvent by weight in the liquid binder, with 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume.~~
 - ~~(5) Other asphalt with solvent binder, containing a maximum 25.9% VOC solvent by weight in the liquid binder, with 2.5% by weight of the VOC solvent evaporating.~~
- (c) ~~The liquid binder used in cold mix asphalt production shall be limited as follows:~~
- ~~(1) The amount of VOC solvent used in rapid cure cutback asphalt shall be limited to less than 78.2 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~
 - ~~(2) The amount of VOC solvent used in medium cure cutback asphalt shall be limited to less than 106.1 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~
 - ~~(3) The amount of VOC solvent used in slow cure cutback asphalt shall be limited to less than 297.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~
 - ~~(4) The amount of VOC solvent used in emulsified asphalt shall be limited to less than 160.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~
 - ~~(5) The amount of VOC solvent used in all other asphalt shall be limited to less than 2,970.3 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~

~~(6) When more than one type of binder is used per twelve (12) consecutive month period, the total usage of all binders shall be limited so that the total potential to emit VOC is less than 74.3 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~

~~In order to determine the tons of VOC emitted per year for each type of binder, use the following formula and divide the tons of VOC solvent used per year for each type of binder by the corresponding adjustment ratio listed in the table that follows.~~

$$\text{VOC emitted (tons/yr)} = \frac{\text{VOC solvent used for each binder (tons/yr)}}{\text{Adjustment ratio}}$$

Type of binder	tons solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1.053	
cutback asphalt medium cure		1.429	
cutback asphalt slow cure		4.0	
emulsified asphalt		2.155	
other asphalt		40	

D.1.11 9-Sulfur Dioxide Emissions and Sulfur Content

Compliance with Conditions D.1.3(a), D.1.3(b), and ~~D.1.3(c)~~ **D.1.4(b) and D.1.4(c)** shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil or No. 4 distillate oil and one and six-tenths (1.6) pounds per million British thermal unit heat input when operating on reused (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 aggregate dryer and batch mixer 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.1.12 Hydrogen Chloride (HCl) Emissions and Chlorine Content

In order to comply with Condition D.1.6, the Permittee shall demonstrate that the chlorine content of the fuel used for the aggregate dryer burner does not exceed twenty-two hundredths of a percent (0.22%) by weight, when operating on waste oil, by providing a vendor analysis of fuel delivered accompanied by a vendor certification.

D.1.13 ~~40~~ Particulate Control

- (a) In order to comply with Conditions ~~D.1.2(b)~~ and D.1.4 and **D.1.6(b)**, the cyclone (**CE1 CE2**) and jet pulse baghouse (**CE2 CE4**) for the aggregate dryer/mixer shall be in operation and control emissions from the aggregate dryer/mixer at all times when the aggregate dryer/mixer is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.1.14 ~~44~~ Visible Emissions Notations

- (a) Visible emission notations of the conveyors, material transfer points and aggregate dryer/mixer stack (S1) exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) 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.1.15 ~~42~~ Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) The Permittee shall record the pressure drop across the baghouse (**CE2 CE4**) used in conjunction with the aggregate dryer/mixer at least once per day when the aggregate dryer/mixer is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 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.
- (b) The Permittee shall record the inlet temperature to the baghouse (**CE2 CE4**) used in conjunction with the aggregate dryer/mixer, at least once per day when the aggregate

dryer/mixer is in operation. When for any one reading, the inlet temperature to the baghouse is outside the normal range of 200 and 400 degrees Fahrenheit 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. This is required to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. A temperature 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.

- (c) The instruments used for determining the pressure and temperature 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.1.16 ~~43~~ 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 emissions 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, or dust traces.

D.1.17 ~~44~~ Cyclone Failure Detection

- (a) For a cyclone 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 cyclone 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 emissions 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).

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

D.1.18 ~~45~~ Record Keeping Requirements

- (a) To document compliance with Conditions D.1.3 and D.1.6, the Permittee shall maintain records in accordance with (1) through (4) below.
 - (1) Calendar dates covered in the compliance determination period;

- (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, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); 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

- (54) A statement from the fuel supplier that certifies the sulfur content of the fuel oil-, or waste oil, and a statement from the fuel supplier that certifies the chlorine content of the waste oil;**

- (b) To document compliance with Conditions D.1.3(a), **D.1.4, and D.1.5 and D.1.6**, the Permittee shall keep records of the **actual** amount of each fuel used at the aggregate dryer burner, **since the last compliance determination period and equivalent sulfur dioxide, nitrogen oxide, and hydrogen chloride emissions**. Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.
- (c) To document compliance with Conditions **D.1.1 and D.1.2(a)** and the Permittee shall keep records of the amount of asphalt processed through the aggregate dryer/mixer . Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.
- ~~(d) To document compliance with Condition D.1.1(a), the Permittee shall keep records of the amount and VOC content of each solvent used for emulsified and cutback asphalt. Records shall include purchase orders, invoices and material safety data sheets (MSDS) necessary to verify the type and amount used.~~
- ~~(de)~~ To document compliance with Condition ~~D.1.9~~ **D.1.3**, the Permittee shall maintain daily records of the visible emission notations of **from each of** the conveyors, material transfer points, and aggregate dryer/mixer stack (S1) exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the plant did not operate that day).
- (e) To document compliance with Condition D.1.7, the Permittee shall maintain the following:**
- (1) Pursuant to 329 IAC 13-8-6, records of each used oil shipment accepted for burning. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents and must include the following information;**
- (A) The name and address of the transporter who delivered the used oil to the burner.**
- (B) The name and address of the generator or processor or re-refiner from whom the used oil was sent to the burner.**
- (C) The EPA identification number of the transporter who delivered the used oil to the burner.**

- (D) **The EPA identification number, if applicable, of the generator or processor or re-refiner from whom the used oil was sent to the burner.**
- (E) **The quantity of used oil accepted.**
- (F) **The date of acceptance.**
- (2) **The records described in this section must be maintained for at least three (3) years.**
- (f) To document compliance with Condition ~~D.1.10~~ **D.1.13**, the Permittee shall maintain the following:
 - (1) **Daily R**records of the pressure drop across the **jet pulse** baghouse **controlling the aggregate dryer/mixer** ~~during normal operation once per day~~. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g., the aggregate dryer/mixer did not operate that day).
 - (2) Records of the inlet temperature at the baghouse during normal operation once per day. The Permittee shall include in its daily record when a temperature reading is not taken and the reason for the lack of a temperature reading, (e.g., the aggregate dryer/mixer did not operate that day).
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.19 ~~16~~ Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Conditions ~~D.1.1(a), D.1.2(a), D.1.2(b), D.1.2(c), D.1.3, D.1.3, D.1.5 and D.1.6~~ shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- ~~(b) A quarterly summary of the information to document compliance with Conditions D.1.2(a) and D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- ~~(c) A quarterly summary of the information to document compliance with Condition D.1.3(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using one of the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- ~~(d) A quarterly summary of the information to document compliance with Condition D.1.5 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using one of the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

~~New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]~~

~~D.1.17 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]~~

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

~~D.1.18 NSPS Subpart I Requirements [40 CFR Part 60, Subpart I] [326 IAC 12-1]~~

~~Pursuant to CFR Part 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart I, which are incorporated by reference as 326 IAC 12-1 for the asphalt plant as specified as follows. Pursuant to 40 CFR 60.90(a), the affected facility to which the provisions of this subpart apply is each hot mix asphalt facility. For the purpose of this subpart, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.~~

~~§ 60.91 Definitions~~

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

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

~~§ 60.92 Standard for particulate matter~~

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

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

~~§ 60.93 Test methods and procedures~~

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

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

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

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SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

- (a) Natural gas/fuel fired combustion source (One (1) oil heater **burner**) with heat input equal to or less than ten million (10,000,000) Btu per hour , capacity: ~~2.50~~ **2.00** million British thermal units per hour.
- (b) A petroleum fuel, other than gasoline, dispensing facility, identified as FT1, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment; and

- (d) Two (2) 25,000 gallon self contained liquid asphalt storage tanks , identified as LAC1 and LAC2, approved for construction in 2008;
- (e) One (1) 30,000 gallon self contained liquid asphalt storage tank, identified as LAC3, approved for construction in 2008;
- (f) One (1) 35,000 gallon self contained liquid asphalt storage tank, identified as LAC4, approved for construction in 2008;
- (g) One (1) 22,000 gallon #4 fuel oil self contained storage tank, identified as FT2, approved for construction in 2008;
- (h) One (1) 30,000 gallon #4 fuel oil self contained storage tank, identified as FT3, approved for construction in 2008;
- (i) One (1) 750 BBL (1BBL equals 42 US gallons) Mineral Fill Silo, identified as MS1, approved for construction in 2008;
- (j) Six (6) 300 ton hot-mix silos, identified as S1through S6, approved for construction in 2008;
- (k) Twelve (12) 30 ton Cold Feed Bins, identified as B1 through B12, approved for construction in 2008;
- (l) Two (2) 30 ton Recycle Bins for RAP storage, identified as RB1 and RB2, approved for construction in 2008;
- (m) Feeding, conveying, and loading operations, processing a maximum of 450 tons per hour, consisting of;
 - (1) one (1) collecting conveyor, approved for construction in 2008;
 - (2) one (1) transfer conveyor, approved for construction in 2008; and
- (n) Paved and unpaved roads with limited public access. [326 IAC 6-4]

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

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

D.2.1 PM and PM10 Emissions [326 IAC 2-8-4] [326 IAC 6-5]

Pursuant to 326 IAC 2-8 and 326 IAC 6-5, the Permittee shall control PM and PM10 emissions from paved and unpaved roads according to the fugitive dust plan submitted on December 13, 1996, which is included in Section C - Fugitive Particulate Matter Emission Limitations, of this permit.

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SECTION E.1

FACILITY OPERATION CONDITIONS

Emissions Unit Description: Recycled Asphalt Pavement (RAP) System

One (1) recycled asphalt pavement (RAP) system, identified as RC1, consisting of a RAP breaker, screen and conveyors, capacity: 50 tons per hour.

Under NSPS Subpart OOO, this is an affected facility (i.e. crushers and grinding mills) at hot mix asphalt facility that reduces the size of nonmetallic minerals embedded in recycled asphalt pavement.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

E.2.1 NSPS Subpart OOO Requirements - Standards of Performance for Nonmetallic Mineral Processing Plants [40 CFR Part 60, Subpart OOO] [326 IAC 12-1]

Pursuant to CFR Part 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart OOO, which are incorporated by reference as 326 IAC 12-1 for the recycled asphalt pavement (RAP) system as specified as follows. Pursuant to 40 CFR 60.670, the affected facility to which the provisions of this subpart apply is each crusher and grinding mill in each recycled asphalt pavement (RAP) system, at hot mix asphalt facilities, that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement.

§ 60.670 Applicability and designation of affected facility.

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; and stand-alone screening operations at plants without crushers or grinding mills.

(b) An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in §60.676(a).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.

(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that apply and those that do not apply to owners and operators of affected facilities subject to this subpart.

Table 1—Applicability of Subpart A to Subpart OOO

Subpart A reference	Applies to Subpart OOO	Comment
60.1, Applicability	Yes	
60.2, Definitions	Yes	
60.3, Units and abbreviations	Yes	
60.4, Address:		
(a)	Yes	
(b)	Yes	
60.5, Determination of construction or modification	Yes	
60.6, Review of plans	Yes	
60.7, Notification and recordkeeping	Yes	Except in (a)(2) report of anticipated date of initial startup is not required (§60.676(h)).
60.8, Performance tests	Yes	Except in (d), after 30 days notice for an initially scheduled performance test, any rescheduled performance test requires 7 days notice, not 30 days (§60.675(g)).
60.9, Availability of information	Yes	
60.10, State authority	Yes	
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675 (c)(3) and (c)(4)), Method 9 observation may be reduced from 3 hours to 1 hour. Some affected facilities exempted from Method 9 tests (§60.675(h)).
60.12, Circumvention	Yes	

Subpart A reference	Applies to Subpart OOO	Comment
60.13, Monitoring requirements	Yes	
60.14, Modification	Yes	
60.15, Reconstruction	Yes	
60.16, Priority list	Yes	
60.17, Incorporations by reference	Yes	
60.18, General control device	No	Flares will not be used to comply with the emission limits.
60.19, General notification and reporting requirements	Yes	

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more process operations to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more process operations at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

(a) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

(b) Sand and Gravel.

(c) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.

(d) Rock Salt.

(e) Gypsum.

(f) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.

(g) Pumice.

(h) Gilsonite.

(i) Talc and Pyrophyllite.

(j) Boron, including Borax, Kernite, and Colemanite.

(k) Barite.

(l) Fluorospars.

(m) Feldspar.

(n) Diatomite.

(o) Perlite.

(p) Vermiculite.

(q) Mica.

(r) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) or nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.672 Standard for particulate matter.

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

(1) Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and

(2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of §60.676 (c), (d), and (e).

(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d), and (e) of this section.

(c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in §60.671.

(2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

(f) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.

(g) Owners or operators of multiple storage bins with combined stack emissions shall comply with the emission limits in paragraph (a)(1) and (a)(2) of this section.

(h) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere any visible emissions from:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

§ 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital cost that would be required to construct a comparable new facility” under §60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under §60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

§ 60.675 Test methods and procedures.

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

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.672(a) as follows:

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 10 percent opacity; and

(ii) There are no more than 3 readings of 10 percent for the 1-hour period.

(4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under §60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 15 percent opacity; and

(ii) There are no more than 3 readings of 15 percent for the 1-hour period.

(d) In determining compliance with §60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a) and (b) during each particulate matter run and shall determine the averages.

(g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

(h) Initial Method 9 performance tests under §60.11 of this part and §60.675 of this subpart are not required for:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[54 FR 6680, Feb. 14, 1989, as amended at 62 FR 31360, June 9, 1997]

§ 60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(i) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(i) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(i) The rated capacity in megagrams or tons of the existing storage bin being replaced and

(ii) The rated capacity in megagrams or tons of replacement storage bins.

(b) [Reserved]

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ± 30 percent from the averaged determined during the most recent performance test.

(e) The reports required under paragraph (d) shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b), (c), and (f), and reports of observations using Method 22 to demonstrate compliance with §60.672(e).

(g) The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to §60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in §60.672(b) and the emission test requirements of §60.11 and this subpart. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in §60.672(h).

(h) The subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

(j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

[51 FR 31337, Aug. 1, 1985, as amended at 54 FR 6680, Feb. 14, 1989; 62 FR 31360, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

SECTION E.2

FACILITY OPERATION CONDITIONS

Emissions Unit Description: Hot-Mix Asphalt Plant

One (1) aggregate rotary dryer and drum hot-mix unit, approved for construction in 2008, identified as Unit 01, fired by natural gas, No. 2 distillate fuel oil, No. 4 distillate fuel oil or reused (waste) oil, with a maximum heat input capacity: 175 million British thermal units per hour, and a maximum throughput capacity of 450 tons per hour of asphalt, equipped with one (1) cyclone (identified as CE1) and one (1) jet pulse baghouse (identified as CE2) for particulate matter control, and exhausting through stack S1.

Under NSPS subpart I, this is considered an affected hot mix asphalt facility.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

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

Pursuant to CFR Part 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart I, which are incorporated by reference as 326 IAC 12-1 for the asphalt plant as specified as follows. Pursuant to 40 CFR 60.90(a), the affected facility to which the provisions of this subpart apply is each hot mix asphalt facility. For the purpose of this subpart, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.

§ 60.90 Applicability and designation of affected facility.

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

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

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

§ 60.91 Definitions.

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

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

[51 FR 12325, Apr. 10, 1986]

§ 60.92 Standard for particulate matter.

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

(1) Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf).

(2) Exhibit 20 percent opacity, or greater.

[39 FR 9314, Mar. 8, 1974, as amended at 40 FR 46259, Oct. 6, 1975]

§ 60.93 Test methods and procedures.

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

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

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

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

[54 FR 6667, Feb. 14, 1989]

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
 Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
 FESOP No.: F 105-23908-00045
 Facility: One (1) aggregate dryer
 Parameter: Fuel Usage (SO₂ and NO_x emissions)
 Limit: Less than ~~2,600,000~~ ~~2,618,310~~ gallons of No. ~~4 2~~ distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month. ~~Each gallon of No. 4 distillate fuel oil used shall be considered equal to using 1.06 gallons of No. 2 distillate fuel oil and each gallon of waste oil used shall be considered equal to using 1.13 gallons of No. 2 distillate fuel oil~~

QUARTER: _____ YEAR: _____

Month	Equivalent No. 4 2 Distillate Fuel Oil Usage (gallons)	Equivalent No. 4 2 Distillate Fuel Oil Usage (gallons)	Equivalent No. 4 2-Distillate Fuel Oil Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
 MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045
Facility: One (1) aggregate dryer
Parameter: Fuel Usage (SO₂ and NO_x emissions)
Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ **YEAR:** _____

Month	No. 2 Distillate Fuel Oil Usage (gallons)	No. 2 Distillate Fuel Oil Usage (gallons)	No. 2 Distillate Fuel Oil Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045
Facility: One (1) aggregate dryer
Parameter: Fuel Usage (SO₂ and NO_x emissions)
Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ **YEAR:** _____

Month	No. 6 Distillate Fuel Oil Usage (gallons)	No. 6 Distillate Fuel Oil Usage (gallons)	No. 6 Distillate Fuel Oil Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045
Facility: One (1) aggregate dryer
Parameter: Fuel Usage (SO₂ and NO_x emissions)
Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ **YEAR:** _____

Month	Natural Gas Usage (MMCF)	Natural Gas Usage (MMCF)	Natural Gas Usage (MMCF)
	This Month	Previous 11 Months	12 Month Total

- 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
MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045
Facility: One (1) aggregate dryer
Parameter: Fuel Usage (SO₂ and NO_x emissions)
Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ **YEAR:** _____

Month	Propane Usage (gallons)	Propane Usage (gallons)	Propane Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045
Facility: One (1) aggregate dryer
Parameter: Fuel Usage (SO₂ and NO_x emissions)
Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ **YEAR:** _____

Month	Butane Usage (gallons)	Butane Usage (gallons)	Butane Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045
Facility: One (1) aggregate dryer
Parameter: Fuel Usage (SO₂ and NO_x emissions)
Limit: Less than 2,600,000 gallons of No. 4 distillate fuel oil per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ **YEAR:** _____

Month	Reused (Waste) Oil Usage (gallons)	Reused (Waste) Oil Usage (gallons)	Reused (Waste) Oil Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
 MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
 Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
 FESOP No.: F 105-23908-00045
 Facility: One (1) aggregate dryer
 Parameter: Reused (Waste) Oil Usage (HCl emissions)
 Limit: Less than **1,330,000** ~~750,000~~ gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Reused (Waste) Oil Usage (gallons)	Reused (Waste) Oil Usage (gallons)	Reused (Waste) Oil Usage (gallons)
	This Month	Previous 11 Months	12 Month Total

- 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
MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: Rogers Group, Inc. - Bloomington Asphalt
Source Address: 1100 N. Oard Road, Bloomington, Indiana 47404
Mailing Address: P.O. Box 25250, Nashville, Tennessee 37202
FESOP No.: F 105-23908-00045
Facility: One (1) aggregate dryer/mixer
Parameter: Asphalt processed
Limit: **950,000** ~~481,909.8~~ tons per twelve (12) consecutive month period, with compliance determined at the end of each month

QUARTER: _____ YEAR: _____

Month	Asphalt processed (tons)	Asphalt processed (tons)	Asphalt processed (tons)
	This Month	Previous 11 Months	12 Month Total

- 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
 MC-61-53 IGCN 1003**

FESOP Quarterly Report

Source Name: _____ Rogers Group, Inc. - Bloomington Asphalt
 Source Address: _____ 110 N. Oard Road, Bloomington, Indiana 47404
 Mailing Address: _____ P.O. Box 25250, Nashville, Tennessee 37202
 FESOP No.: _____ F 105-23908-00045
 Facility: _____ Asphalt plant
 Parameter: _____ VOC emissions, excluding combustion, based on solvent usage
 Limit: _____ Less than 74.3 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the following equation:

$$\frac{\text{VOC emitted (tons/yr)}}{\text{Adjustment ratio}} = \text{VOC solvent used for each binder (tons/yr)}$$

Quarter: _____ Year: _____

Month	Type of Liquid binder	Solvent Usage This Month (tons)	Adjustment Ratio	VOC emitted from each binder This Month (tons)	VOC emitted from all binders This Month (tons)	VOC emitted Previous 11 Months (tons)	VOC emitted 12 Month Total (tons)
	Cutback asphalt rapid cure		1.053				
	Cutback asphalt medium cure		1.429				
	Cutback asphalt slow cure		4.0				
	Emulsified asphalt		2.155				
	other asphalt		40				
	Cutback asphalt rapid cure		1.053				
	Cutback asphalt medium cure		1.429				
	Cutback asphalt slow cure		4.0				
	Emulsified asphalt		2.155				
	other asphalt		40				
	Cutback asphalt rapid cure		1.053				
	Cutback asphalt medium cure		1.429				
	Cutback asphalt slow cure		4.0				
	Emulsified asphalt		2.155				
	other asphalt		40				

- 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.

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

1. The FESOP Quarterly Deviation and Compliance Monitoring Report is revised to correct a typographical error as follows:

~~A certification is not required for this report.~~
Attach a signed certification to complete this report

Conclusion and Recommendation

The construction of this proposed modification and the operation of the entire source shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 105-25414-00045. The staff recommends to the Commissioner that the Significant Permit Revision be approved.

Unless otherwise stated, information used in this review was derived from the application and received by the Office of Air Quality (OAQ) on October 17, 2007. Additional information was received on October 26, 2007, and November 30, 2007.

Copies of the preliminary findings have been provided to the Monroe County Library.

IDEM Contact

Questions regarding this proposed permit can be directed to Ms. Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5374 or toll free at 1-800-451-6027 extension 4-5374.

**Appendix A: Emissions Calculations
Emission Summary**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

Maximum Capacity

Maximum Hourly Asphalt Production =	450	ton/hr								
Maximum Annual Asphalt Production =	3,942,000	ton/yr								
Maximum Fuel Input Rate =	175	MMBtu/hr								
Equivalent Natural Gas Usage =	1,533	MMCF/yr								
Equivalent No. 2 Fuel Oil Usage =	10,950,000	gal/yr, and	0.50	% sulfur						
Equivalent No. 4 Fuel Oil Usage =	10,950,000	gal/yr, and	0.50	% sulfur						
Equivalent No. 6 Fuel Oil Usage =	10,950,000	gal/yr, and	0.50	% sulfur						
Equivalent Propane Usage =	16,939,227	gal/yr, and	0.20	gr/100 ft3 sulfur						
Equivalent Butane Usage =	15,739,220	gal/yr, and	0.22	gr/100 ft3 sulfur						
Equivalent Waste Oil Usage =	10,950,000	gal/yr, and	1.00	% sulfur	0.50	% ash	0.200	% chloride,	0.010	% lead

Unlimited/Uncontrolled Emissions

Process Description	Unlimited/Uncontrolled Potential to Emit (tons/year)							
	Criteria Pollutants					Hazardous Air Pollutants		
	PM	PM10	SO2	NOx	VOC	CO	Total HAPs	Worst Case HAP
Ducted Emissions								
Fuel Combustion (worst case)	175.20	139.61	804.83	257.33	5.48	64.39	78.94	72.27 (hydrogen chloride)
Dryer/Mixer	55,188.00	12,811.50	114.32	108.41	63.07	256.23	21.01	6.11 (formaldehyde)
Worst Case Emissions	55,188.00	12,811.50	804.83	257.33	63.07	256.23	78.94	--- (hydrogen chloride)
Fugitive Emissions								
Asphalt Load-Out and On-Site Yard	1.03	1.03	0.00	0.00	2.35	3.35	0.05	0.01 (formaldehyde)
Hot Oil and Asphalt Heaters	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00 (naphthalene)
Material Storage Piles	1.60	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Material Processing and Handling	12.73	6.02	0.00	0.00	0.00	0.00	0.00	0.00
Material Crushing, Screening, and Conveying	62.54	22.84	0.00	0.00	0.00	0.00	0.00	0.00
Paved and Unpaved Roads (worst case)	180.16	45.92	0.00	0.00	0.00	0.00	0.00	0.00
Volatile Organic Liquid Storage Vessels					negl.		negl.	negl.
Total Fugitive Emissions	258.07	76.37	0.00	0.00	2.35	3.43	0.05	---
Totals Unlimited/Uncontrolled PTE	55,446.07	12,887.87	804.83	257.33	65.42	259.66	78.99	72.27 (hydrogen chloride)

negl = negligible

**Appendix A: Emissions Calculations
Fuel Combustion**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

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

Maximum Capacity

Maximum Annual Asphalt Production =	3,942,000	ton/yr																	
Maximum Fuel Input Rate =	175	MMBtu/hr																	
Equivalent Natural Gas Usage =	1,533	MMCF/yr																	
Equivalent No. 2 Fuel Oil Usage =	10,950,000	gal/yr, and	0.50	% sulfur															
Equivalent No. 4 Fuel Oil Usage =	10,950,000	gal/yr, and	0.50	% sulfur															
Equivalent No. 6 Fuel Oil Usage =	10,950,000	gal/yr, and	0.50	% sulfur															
Equivalent Propane Usage =	16,939,227	gal/yr, and	0.20	gr/100 ft3 sulfur															
Equivalent Butane Usage =	15,739,220	gal/yr, and	0.22	gr/100 ft3 sulfur															
Equivalent Waste Oil Usage =	10,950,000	gal/yr, and	1.0	% sulfur	0.50	% ash	0.200	% chloride,	0.010	% lead									

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units)								Unlimited/Uncontrolled Potential to Emit (tons/yr)							
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil (lb/kgal)	No. 6 Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Waste Oil (lb/kgal)	Diesel Engine (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	No. 6 Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Waste Oil (tons/yr)	Worse Case Fuel (tons/yr)
PM	1.9	2	7	7.815	0.6	0.6	32	43.4	1.46	10.95	38.33	42.79	5.082	4.722	175.20	175.2
PM10	7.6	3.3	8.3	9.315	0.6	0.6	25.5	43.4	5.83	18.07	45.44	51.00	5.082	4.722	139.61	139.61
SO2	0.6	78.5	75.0	78.5	0.020	0.020	147.0	40.6	0.46	429.79	410.63	429.79	0.169	0.156	804.83	804.83
NOx	280	24.0	47.0	47.0	19.0	21.0	19.0	617.4	214.62	131.40	257.33	257.33	160.92	165.26	104.03	257.33
VOC	5.5	0.20	0.20	0.28	0.50	0.60	1.0	49.00	4.22	1.10	1.10	1.53	4.23	4.72	5.48	5.48
CO	84	5.0	5.0	5.0	3.2	3.6	5.0	133.0	64.386	27.38	27.38	27.38	27.10	28.33	27.38	64.39
Hazardous Air Pollutant																
HCl							13.2								72.27	72.27
Antimony			5.25E-03	5.25E-03				negl			2.87E-02	2.87E-02			negl	2.9E-02
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03				1.1E-01	1.5E-04	3.07E-03	7.23E-03	7.23E-03			6.02E-01	6.0E-01
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05				negl	9.2E-06	2.30E-03	1.52E-04	1.52E-04			negl	2.3E-03
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04				9.3E-03	8.4E-04	2.30E-03	2.18E-03	2.18E-03			5.09E-02	5.1E-02
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04				2.0E-02	1.1E-03	2.30E-03	4.63E-03	4.63E-03			1.10E-01	1.1E-01
Cobalt	8.4E-05		6.02E-03	6.02E-03				2.1E-04	6.4E-05		3.30E-02	3.30E-02			1.15E-03	3.3E-02
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03			0.55		3.8E-04	6.90E-03	8.27E-03	8.27E-03			3.0E+00	3.01
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03				6.8E-02	2.9E-04	4.60E-03	1.64E-02	1.64E-02			3.72E-01	0.37
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04					2.0E-04	2.30E-03	6.19E-04	6.19E-04				2.3E-03
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02				1.1E-02	1.6E-03	2.30E-03	4.63E-01	4.63E-01			6.02E-02	0.463
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04				negl	1.8E-05	1.15E-02	3.74E-03	3.74E-03			negl	1.1E-02
1,1,1-Trichloroethane			2.36E-04	2.36E-04							1.29E-03	1.29E-03				1.3E-03
1,3-Butadiene								5.47E-03								0.0E+00
Acetaldehyde								1.07E-01								0.0E+00
Acrolein								1.30E-02								0.0E+00
Benzene	2.1E-03		2.14E-04	2.14E-04				1.31E-01	1.6E-03		1.17E-03	1.17E-03				1.6E-03
Bis(2-ethylhexyl)phthalate								2.2E-03							1.20E-02	
Dichlorobenzene	1.2E-03							8.0E-07	9.2E-04						4.38E-06	9.2E-04
Ethylbenzene			6.36E-05	6.36E-05							3.48E-04	3.48E-04				3.5E-04
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				1.65E-01	5.7E-02	3.34E-01	1.81E-01	1.81E-01				0.334
Hexane	1.8E+00								1.38							1.380
Phenol								2.4E-03							1.31E-02	negl
Toluene	3.4E-03		6.20E-03	6.20E-03				5.73E-02	2.6E-03		3.39E-02	3.39E-02				3.4E-02
Total PAH Haps	negl		1.13E-03	1.13E-03				3.9E-02	negl		6.19E-03	6.19E-03			2.14E-01	2.1E-01
Polycyclic Organic Matter		3.30E-03								1.81E-02						1.8E-02
Xylene			1.09E-04	1.09E-04				3.99E-02			5.97E-04	5.97E-04				6.0E-04
Total HAPs									1.45	0.39	0.79	0.79	0	0	76.72	78.94

Methodology

Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Natural Gas Usage (MMCF/yr)) * (Emission Factor (lb/MMCF)) * (ton/2000 lbs)

All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Fuel Usage (gals/yr)) * (Emission Factor (lb/kgal)) * (kgal/1000 gal) * (ton/2000)

Sources of AP-42 Emission Factors for fuel combustion:

Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4

No. 2, No. 4, and No. 6 Fuel Oil: AP-42 Chapter 1.3 (dated 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11

Propane and Butane: AP-42 Chapter 1.5 (dated 10/96), Tables 1.5-1 (assuming PM = PM10)

Waste Oil: AP-42 Chapter 1.11 (dated 10/96), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5

Diesel Engine Oil: AP-42 Chapter 3.3 (dated 10/96), Tables 3.3-1 and 3.3-2

Abbreviations

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

Appendix A: Emissions Calculations

Dryer/Mixer

Volatile Organic Compounds and Hazardous Air Pollutants

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

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

Maximum Annual Asphalt Production = 3,942,000 ton/yr

Criteria Pollutant*	Uncontrolled Emission Factors (lb/ton)			Unlimited/Uncontrolled Potential to Emit (tons/yr)			Worse Case PTE
	Drum-Mix Plant (dryer/mixer)			Drum-Mix Plant (dryer/mixer)			
	Natural Gas	No. 2 Fuel Oil	No. 6 Fuel Oil or Waste Oil	Natural Gas	No. 2 Fuel Oil	No. 6 Fuel Oil or Waste Oil	
PM	28	28	28	55188	55188	55188	55188
PM10	6.5	6.5	6.5	12811.5	12811.5	12811.5	12811.5
SO2	0.0034	0.011	0.058	6.7	21.7	114.3	114.3
NOx	0.026	0.055	0.055	51.2	108.4	108.4	108.4
VOC	0.032	0.032	0.032	63.1	63.1	63.1	63.1
CO	0.13	0.13	0.13	256.2	256.2	256.2	256.2
Hazardous Air Pollutant							
HCl			2.10E-04			4.14E-01	0.41
Antimony	1.80E-07	1.80E-07	1.80E-07	3.55E-04	3.55E-04	3.55E-04	3.55E-04
Arsenic	5.60E-07	5.60E-07	5.60E-07	1.10E-03	1.10E-03	1.10E-03	1.10E-03
Beryllium	negl	negl	negl	negl	negl	negl	0.00E+00
Cadmium	4.10E-07	4.10E-07	4.10E-07	8.08E-04	8.08E-04	8.08E-04	8.08E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	1.08E-02	1.08E-02	1.08E-02	1.08E-02
Cobalt	2.60E-08	2.60E-08	2.60E-08	5.12E-05	5.12E-05	5.12E-05	5.12E-05
Lead	6.20E-07	1.50E-05	1.50E-05	1.22E-03	2.96E-02	2.96E-02	2.96E-02
Manganese	7.70E-06	7.70E-06	7.70E-06	1.52E-02	1.52E-02	1.52E-02	1.52E-02
Mercury	2.40E-07	2.60E-06	2.60E-06	4.73E-04	5.12E-03	5.12E-03	5.12E-03
Nickel	6.30E-05	6.30E-05	6.30E-05	0.12	0.12	0.12	0.12
Selenium	3.50E-07	3.50E-07	3.50E-07	6.90E-04	6.90E-04	6.90E-04	6.90E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	0.08	0.08	0.08	0.08
Acetaldehyde			1.30E-03			2.56	2.56
Acrolein			2.60E-05			5.12E-02	5.12E-02
Benzene	3.90E-04	3.90E-04	3.90E-04	0.77	0.77	0.77	0.77
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.47	0.47	0.47	0.47
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	6.11	6.11	6.11	6.11
Hexane	9.20E-04	9.20E-04	9.20E-04	1.81	1.81	1.81	1.81
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.09	0.09	0.09	0.09
MEK			2.00E-05			0.04	0.04
Propionaldehyde			1.30E-04			0.26	0.26
Quinone			1.60E-04			0.32	0.32
Toluene	1.50E-04	2.90E-03	2.90E-03	0.30	5.72	5.72	5.72
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.37	1.73	1.73	1.73
Xylene	2.00E-04	2.00E-04	2.00E-04	0.39	0.39	0.39	0.39

Total HAPs 21.01

Worst Single HAP 6.11 (formaldehyde)

Methodology

Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) * (Emission Factor (lb/ton)) * (ton/20 Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-3, 11.1-7, 11.1-8, 11.1-10, and 11.1-12)

*Emission of PM, PM10, SO2, NOx, and, CO from Drum-Mix Plants are included with the emission calculations for fuel combustion

Abbreviations

VOC - Volatile Organic Compounds
 HCl = Hydrogen Chloride
 SO2 = Sulfur Dioxide

HAP = Hazardous Air Pollutant
 PAH = Polyaromatic Hydrocarbon

**Appendix A: Emissions Calculations
Load-Out and On-Site Yard Emissions**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

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

Asphalt Temperature, T =	325	F
Asphalt Volatility Factor, V =	-0.5	
Maximum Annual Asphalt Production =	3,942,000	tons/yr

Pollutant	Emission Factor (lb/ton asphalt)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		
	Load-Out	On-Site Yard	Load-Out	On-Site Yard	Total
Total PM	5.2E-04	NA	1.03	NA	1.03
Organic PM	3.4E-04	NA	0.67	NA	0.67
TOC	0.004	0.001	8.20	2.168	10.4
CO	0.001	3.5E-04	2.66	0.694	3.35

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

PM/HAPs	0.012	0	0.012
VOC/HAPs	0.029	0.008	0.037
non-VOC/HAPs	1.5E-04	4.0E-05	1.9E-04
non-VOC/non-HAPs	0.14	0.04	0.18

Total VOCs	1.86	0.5	2.3
Total HAPs	0.04	0.008	0.05
Worst Single HAP			0.010
			(formaldehyde)

Methodology

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

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

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

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

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

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

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

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

Abbreviations

TOC = Total Organic Compounds

CO = Carbon Monoxide

PM = Particulate Matter

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

**Appendix A: Emissions Calculations
Load-Out and On-Site Yard Emissions (continued)**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

Organic Particulate-Based Compounds (Table 11.1-15)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile	Unlimited/Uncontrolled Potential to Emit (tons/yr)		
					Load-out and Onsite Yard (% by weight of Total Organic PM)	Load-out	Onsite Yard	Total
PAH HAPs								
Acenaphthene	83-32-9	PM/HAP	POM	Organic PM	0.26%	1.7E-03	NA	1.7E-03
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	1.9E-04	NA	1.9E-04
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	4.7E-04	NA	4.7E-04
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	1.3E-04	NA	1.3E-04
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	5.1E-05	NA	5.1E-05
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	1.5E-05	NA	1.5E-05
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	1.3E-05	NA	1.3E-05
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	1.5E-05	NA	1.5E-05
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	5.2E-05	NA	5.2E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	6.9E-04	NA	6.9E-04
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	2.5E-06	NA	2.5E-06
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	3.4E-04	NA	3.4E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	5.2E-03	NA	5.2E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	3.2E-06	NA	3.2E-06
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	1.6E-02	NA	0.016
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	8.4E-03	NA	8.4E-03
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	1.5E-04	NA	1.5E-04
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	5.4E-03	NA	5.4E-03
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	1.0E-03	NA	1.0E-03
Total PAH HAPs						0.040	NA	0.040
Other semi-volatile HAPs								
Phenol		PM/HAP	---	Organic PM	1.18%	7.9E-03	0	7.9E-03

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

Methodology

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

Abbreviations

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

Organic Volatile-Based Compounds (Table 11.1-16)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile	Unlimited/Uncontrolled Potential to Emit (tons/yr)		
					Load-out and Onsite Yard (% by weight of TOC)	Load-out	Onsite Yard	Total
VOC		VOC	---	TOC	94%	7.71	2.04	9.74
non-VOC/non-HAPS								
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	5.3E-01	1.4E-01	0.674
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	3.8E-03	1.0E-03	0.005
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	5.8E-02	1.5E-02	0.074
Total non-VOC/non-HAPS					7.30%	0.598	0.158	0.76
Volatile organic HAPs								
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	4.3E-03	1.1E-03	5.4E-03
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	7.9E-04	2.1E-04	1.0E-03
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	4.0E-03	1.1E-03	5.1E-03
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	1.1E-03	2.8E-04	1.3E-03
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	1.7E-05	4.6E-06	2.2E-05
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	1.2E-03	3.3E-04	1.6E-03
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	9.0E-03	2.4E-03	1.1E-02
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	2.3E-02	6.1E-03	0.029
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	7.2E-03	1.9E-03	0.009
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	1.2E-02	3.3E-03	0.016
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	1.5E-04	3.9E-05	1.9E-04
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0	0	0.0E+00
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	6.0E-04	1.6E-04	7.6E-04
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	6.3E-04	1.7E-04	8.0E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	1.7E-02	4.6E-03	0.022
1,1,1-Trichloroethane	71-55-6	VOC/HAP	---	TOC	0	0	0	0
Trichloroethene	79-01-6	VOC/HAP	---	TOC	0	0	0	0
Trichlorofluoromethane	75-69-4	VOC/HAP	---	TOC	0.0013%	1.1E-04	2.8E-05	1.3E-04
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	3.4E-02	8.9E-03	0.042
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	6.6E-03	1.7E-03	8.3E-03
Total volatile organic HAPs					1.50%	0.123	0.033	0.155

Methodology

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

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

Abbreviations

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

**Appendix A: Emissions Calculations
Hot Oil and Asphalt Heaters**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

The following calculations determine the unlimited/uncontrolled fugitive emissions from the hot oil and asphalt heaters

Maximum Fuel Input Rate = 2 MMBtu/hr
 Maximum Natural Gas Usage = 18 MMCF/yr
 Maximum No. 2 Fuel Oil Usage = 125,143 gal/yr

Criteria Pollutant	Emission Factors (lb/ton)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		Worse Case PTE
	Natural Gas (lb/ft3)	No. 2 Fuel Oil (lb/gal)	Natural Gas	No. 2 Fuel Oil	
VOC	2.60E-08	2.65E-05	2.28E-04	0.002	0.002
CO	8.90E-06	0.0012	0.08	0.0750857	0.077964
Hazardous Air Pollutant					
Formaldehyde:	2.60E-08	3.50E-06	2.28E-04	2.19E-04	2.28E-04
Acenaphthene		5.30E-07		3.32E-05	3.32E-05
Acenaphthylene		2.00E-07		1.25E-05	1.25E-05
Anthracene		1.80E-07		1.13E-05	1.13E-05
Benzo(b)fluoranthene		1.00E-07		6.26E-06	6.26E-06
Fluoranthene		4.40E-08		2.75E-06	2.75E-06
Fluorene		3.20E-08		2.00E-06	2.00E-06
Naphthalene		1.70E-05		1.06E-03	1.06E-03
Phenanthrene		4.90E-06		3.07E-04	3.07E-04
Pyrene		3.20E-08		2.00E-06	2.00E-06

Total HAPs 1.67E-03
Worst Single HAP 1.06E-03 (Naphthalene)

Methodology

Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Natural Gas Usage (MMCF/yr))*(Emission Factor (lb/CF))*(1E+06 CF/MMCF)*(ton/2000 lbs)

No. 2 Fuel Oil: Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum No. 2 Fuel Oil Usage (gals/yr))*(Emission Factor (lb/gal))*(ton/2000 lbs)

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Table 11.1-13

Abbreviations

CO = Carbon Monoxide

VOC = Volatile Organic Compound

**Appendix A: Emissions Calculations
Material Storage Piles**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

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

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

Material	Silt Content (wt %)*	Emission Factor (lb/acre/day)	Maximum Anticipated Pile Size (acres)**	PTE of PM (tons/yr)	PTE of PM10 (tons/yr)
Limestone	1.6	1.85	0.75	0.253	0.089
Sand	2.6	3.01	0.75	0.412	0.144
RAP	0.5	0.58	0.75	0.079	0.028
Gravel	1.6	1.85	0.75	0.253	0.089
Slag	3.8	4.40	0.75	0.602	0.211
Totals				1.60	0.56

Methodology

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

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

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

**Maximum pile size (acres) anticipated for a source with an annual asphalt production of 3,942,000 tons/yr

Abbreviations

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PTE = Potential to Emit

**Appendix A: Emissions Calculations
Material Processing and Handling
Fugitive Dust**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

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

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

$$E_f = k(0.0032)^{0.74} [(U/5)^{1.3} / (M/2)^{1.4}]$$

where: E_f = Emission factor (lb/ton)

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

Maximum Annual Asphalt Production =	3,942,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	3,744,900	tons/yr

Type of Activity	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10 (tons/yr)
Truck unloading of materials into storage piles	4.24	2.01
Front-end loader dumping of materials into feeder bins	4.24	2.01
Conveyor dropping material into dryer/mixer or batch tower	4.24	2.01
Total (tons/yr)	12.73	6.02

Methodology

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

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

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

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

Material Screening and Conveying (AP-42 Section 11.19.2)

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

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10 (tons/yr)
Crushing	0.0054	0.0024	10.11	4.49
Screening	0.025	0.0087	46.81	16.29
Conveying	0.003	0.0011	5.62	2.06

**Appendix A: Emissions Calculations
Fugitive Dust Emissions - Unpaved Roads**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

Unpaved Roads at Industrial Site

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

Maximum Annual Asphalt Production =	3,942,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	3,744,900	tons/yr
Maximum Asphalt Cement/Binder Throughput =	197,100	tons/yr
Maximum No. 2 Fuel Oil Usage =	10,950,000	gallons/yr
Maximum No. 4 Fuel Oil Usage =	10,950,000	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	20.0	15.0	35.0	249,660.0	8,738,100.0	528	0.100	24,966.0
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	20.0	0	20.0	249,660.0	4,993,200.0	528	0.100	24,966.0
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6,500 gal)	10.0	38.0	48.0	5.2E+03	2.5E+05	1200	0.227	1178.8
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6,500 gal)	10.0	0	10.0	5.2E+03	5.2E+04	1200	0.227	1178.8
Fuel Oil Truck Enter Full	Tanker truck (6,500 gal)	10.0	38.0	48.0	9.7E+02	4.7E+04	1200	0.227	221.4
Fuel Oil Truck Leave Empty	Tanker truck (6,500 gal)	10.0	0	10.0	9.7E+02	9.7E+03	1200	0.227	221.4
Aggregate/RAP Loader Full	Front-end loader (3 CY)	5.0	10.0	15.0	374,490.0	5,617,350.0	528	0.100	37,449.0
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	5.0	0	5.0	374,490.0	1,872,450.0	528	0.100	37,449.0
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	20.0	15.0	35.0	262,800.0	9,198,000.0	528	0.100	26,280.0
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	20.0	0	20.0	262,800.0	5,256,000.0	528	0.100	26,280.0
Total						1.8E+06	3.6E+07		1.8E+05

Average Vehicle Weight Per Trip = 20.2 tons/trip
 Average Miles Per Trip = 0.101 miles/trip

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

where k =	PM	PM10	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.9	1.5	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Pla
a =	4.8	4.8	= constant (AP-42 Table 13.2.2-2)
W =	0.7	0.9	= constant (AP-42 Table 13.2.2-2)
b =	20.2	20.2	tons = average vehicle weight (provided by source)
	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

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

Unmitigated Emission Factor, $E_f =$	PM	PM10	lb/mile
Mitigated Emission Factor, $E_{ext} =$	6.08	1.55	lb/mile
Dust Control Efficiency =	4.00	1.02	lb/mile
	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	75.93	19.35	49.92	12.72	24.96	6.36
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	75.93	19.35	49.92	12.72	24.96	6.36
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6,500 gal)	3.585	0.914	2.357	0.601	1.179	0.300
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6,500 gal)	3.585	0.914	2.357	0.601	1.179	0.300
Fuel Oil Truck Enter Full	Tanker truck (6,500 gal)	0.673	0.172	0.443	0.113	0.221	0.056
Fuel Oil Truck Leave Empty	Tanker truck (6,500 gal)	0.673	0.172	0.443	0.113	0.221	0.056
Aggregate/RAP Loader Full	Front-end loader (3 CY)	113.89	29.03	74.89	19.09	37.44	9.54
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	113.89	29.03	74.89	19.09	37.44	9.54
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	79.92	20.37	52.55	13.39	26.28	6.70
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	79.92	20.37	52.55	13.39	26.28	6.70
Totals		547.99	139.66	360.33	91.83	180.16	45.92

Methodology

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

Abbreviations

PM = Particulate Matter
 PM10 = Particulate Matter (<10 um)
 PTE = Potential to Emit

**Appendix A: Emissions Calculations
Fugitive Dust Emissions - Paved Roads**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

Paved Roads at Industrial Site

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

Maximum Annual Asphalt Production =	3,942,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	3,744,900	tons/yr
Maximum Asphalt Cement/Binder Throughput =	197,100	tons/yr
Maximum No. 2 Fuel Oil Usage =	10,950,000	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per day (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	20.0	15.0	35.00	2.5E+05	8.7E+06	528	0.100	24966.0
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	20.0	0	20.00	2.5E+05	5.0E+06	528	0.100	24966.0
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6,500 gal)	10.0	38.0	48.00	5.2E+03	2.5E+05	1200	0.227	1178.8
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6,500 gal)	10.0	0	10.00	5.2E+03	5.2E+04	1200	0.227	1178.8
Fuel Oil Truck Enter Full	Tanker truck (6,500 gal)	10.0	38.0	48.00	9.7E+02	4.7E+04	1200	0.227	221.4
Fuel Oil Truck Leave Empty	Tanker truck (6,500 gal)	10.0	0	10.00	9.7E+02	9.7E+03	1200	0.227	221.4
Aggregate/RAP Loader Full	Front-end loader (3 CY)	5.0	10.0	15.00	3.7E+05	5.6E+06	528	0.100	37449.0
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	5.0	0	5.00	3.7E+05	1.9E+06	528	0.100	37449.0
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	20.0	15.0	35.00	2.6E+05	9.2E+06	528	0.100	26280.0
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	20.0	0	20.00	2.6E+05	5.3E+06	528	0.100	26280.0
Total					1.8E+06	3.6E+07			1.8E+05

Average Vehicle Weight Per Trip =	20.2	tons/trip
Average Miles Per Trip =	0.101	miles/trip

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

	PM	PM10	
where k =	0.082	0.016	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
W =	20.2	20.2	tons = average vehicle weight (provided by source)
C =	0.00047	0.00047	lb/mi = emission factor for vehicle exhaust, brake wear, and tire wear (AP-42 Table 13.2.1-2)
sL =	0.6	0.6	g/m ² = Ubiquitous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer)

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

Mitigated Emission Factor, $E_{ext} = E * [1 - (p/4N)]$

where p =	125	days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N =	365	days per year

	PM	PM10	
Unmitigated Emission Factor, $E_f =$	0.65	0.13	lb/mile
Mitigated Emission Factor, $E_{ext} =$	0.60	0.12	lb/mile
Dust Control Efficiency =	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	8.15	1.59	7.46	1.45	3.73	0.73
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	8.15	1.59	7.46	1.45	3.73	0.73
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6,500 gal)	0.385	0.075	0.352	0.068	0.176	3.4E-02
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6,500 gal)	0.385	0.075	0.352	0.068	0.176	3.4E-02
Fuel Oil Truck Enter Full	Tanker truck (6,500 gal)	7.2E-02	1.4E-02	6.6E-02	1.3E-02	3.3E-02	6.4E-03
Fuel Oil Truck Leave Empty	Tanker truck (6,500 gal)	7.2E-02	1.4E-02	6.6E-02	1.3E-02	3.3E-02	6.4E-03
Aggregate/RAP Loader Full	Front-end loader (3 CY)	12.23	2.38	11.18	2.18	5.59	1.09
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	12.23	2.38	11.18	2.18	5.59	1.09
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	8.58	1.67	7.85	1.53	3.92	0.76
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	8.58	1.67	7.85	1.53	3.92	0.76
Totals		58.86	11.45	53.82	10.47	26.91	5.23

Methodology

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

Abbreviations

PM = Particulate Matter
 PM10 = Particulate Matter (<10 um)
 PTE = Potential to Emit

**Appendix A: Emissions Calculations
Limited Emission Summary**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

Production and Fuel Limitations

Annual Asphalt Production Limitation =	950,000	ton/yr								
Natural Gas Limitation =	700	MMCF/yr								
No. 2 Fuel Oil Limitation =	2,500,000	gal/yr, and	0.50	% sulfur						
No. 4 Fuel Oil Limitation =	2,600,000	gal/yr, and	0.50	% sulfur						
No. 6 Fuel Oil Limitation =	2,500,000	gal/yr, and	0.50	% sulfur						
Propane Limitation =	10,300,000	gal/yr, and	0.20	gr/100 ft3 sulfur						
Butane Limitation =	9,300,000	gal/yr, and	0.22	gr/100 ft3 sulfur						
Waste Oil Limitation =	1,330,000	gal/yr, and	1.0	% sulfur	0.50	% ash	0.114	% chloride,	0.010	% lead
Diesel Engine Oil Limitation =	320,000	gal/yr, and								
PM Dryer/Mixer Limitation =	0.380	lb/ton of asphlt production								
PM10 Dryer/Mixer Limitation =	0.160	lb/ton of asphlt production								
VOC Dryer/Mixer Limitation =	0.200	lb/ton of asphlt production								
CO Dryer/Mixer Limitation =	0.195	lb/ton of asphlt production								

Limited/Controlled Emissions

Process Description	Limited/Controlled Potential Emissions (tons/year)							
	Criteria Pollutants						Hazardous Air Pollutants	
	PM	PM10	SO2	NOx	VOC	CO	Total HAPs	Worst Case HAP
Ducted Emissions								
Fuel Combustion (worst case)	21.28	16.96	98.13	98.00	2.79	29.40	6.40	5.00 (hydrogen chloride)
Dryer/Mixer	180.50	76.00	27.55	26.13	95.00	92.63	5.06	1.47 (formaldehyde)
Worst Case Emissions	180.50	76.00	98.13	98.00	95.00	92.63	6.40	--- (hydrogen chloride)
Fugitive Emissions								
Asphalt Load-Out and On-Site Yard	0.25	0.25	0	0	2.35	0.81	0.05	0.01 (formaldehyde)
Hot Oil and Asphalt Heaters	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00 (naphthalene)
Material Storage Piles	1.60	0.56	0	0	0	0	0	0
Material Processing and Handling	3.07	1.45	0	0	0	0	0	0
Material Crushing, Screening, and Conveying	15.07	5.51	0	0	0	0	0	0
Paved and Unpaved Roads (worst case)	43.41	11.06	0	0	0	0	0	0
Volatile Organic Liquid Storage Vessels					negl.		negl.	negl.
Total Fugitive Emissions	63.40	18.83	0	0	2.35	0.89	0.05	---
Totals Limited/Controlled Emissions	243.90	94.83	98.13	98.00	97.35	93.51	6.45	5.00 (hydrogen chloride)

negl = negligible

Appendix A: Emissions Calculations

**Limited Emissions
Fuel Combustion**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

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

Production and Fuel Limitations

Maximum Hourly Asphalt Production =	450	ton/hr	Maximum Fuel Input Rate =	175	MMBtu/hr								
Annual Asphalt Production Limitation =	950,000	ton/yr	equivalent Hours of Operation =	2,111	hours/year								
Natural Gas Limitation =	700	MMCF/yr	equivalent Hours of Operation =	4,000	hours/year								
No. 2 Fuel Oil Limitation =	2,500,000	gal/yr, and	equivalent Hours of Operation =	2,000	hours/year	0.50	% sulfur						
No. 4 Fuel Oil Limitation =	2,600,000	gal/yr, and	equivalent Hours of Operation =	2,080	hours/year	0.50	% sulfur						
No. 6 Fuel Oil Limitation =	2,500,000	gal/yr, and	equivalent Hours of Operation =	2,000	hours/year	0.50	% sulfur						
Propane Limitation =	10,300,000	gal/yr, and	equivalent Hours of Operation =	5,327	hours/year	0.20	gr/100 ft3 sulfur						
Butane Limitation =	9,300,000	gal/yr, and	equivalent Hours of Operation =	5,176	hours/year	0.22	gr/100 ft3 sulfur						
Waste Oil Limitation =	1,330,000	gal/yr, and	equivalent Hours of Operation =	1,064	hours/year	1.0	% sulfur	0.50	% ash	0.114	% chloride,	0.01	% lead

Limited Emissions

Criteria Pollutant	Emission Factor (units)								Limited Potential to Emit (tons/yr)								Worse Case Fuel (tons/yr)
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil (lb/kgal)	No. 6 Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Waste Oil (lb/kgal)	Diesel Engine (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	No. 6 Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Waste Oil (tons/yr)		
PM	1.9	2	7	7.815	0.6	0.6	32	43.4	0.67	2.50	9.10	9.77	3.090	2.790	21.28	21.28	
PM10	7.6	3.3	8.3	9.315	0.6	0.6	25.5	43.4	2.66	4.13	10.79	11.64	3.090	2.790	16.96	16.96	
SO2	0.6	78.5	75.0	78.5	0.020	0.020	147.0	40.6	0.21	98.13	97.50	98.13	0.103	0.092	97.76	98.13	
NOx	280	24.0	47.0	47.0	19.0	21.0	19.0	617.4	98.00	30.00	61.10	58.75	97.85	97.65	12.64	98.00	
VOC	5.5	0.20	0.20	0.28	0.50	0.60	1.0	49.00	1.93	0.25	0.26	0.35	2.58	2.79	0.67	2.79	
CO	84	5.0	5.0	5.0	3.2	3.6	5.0	133.0	29.4	6.25	6.50	6.25	16.48	16.74	3.33	29.40	
Hazardous Air Pollutant																	
HCl							7.5								5.00	5.00	
Antimony			5.25E-03	5.25E-03			negl				6.83E-03	6.56E-03			negl	6.8E-03	
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03			1.1E-01		7.0E-05	7.00E-04	1.72E-03	1.65E-03			7.32E-02	0.07	
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05			negl		4.2E-06	5.25E-04	3.61E-05	3.48E-05			negl	5.3E-04	
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04			9.3E-03		3.9E-04	5.25E-04	5.17E-04	4.98E-04			6.18E-03	6.2E-03	
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04			2.0E-02		4.9E-04	5.25E-04	1.10E-03	1.06E-03			1.33E-02	0.01	
Cobalt	8.4E-05		6.02E-03	6.02E-03			2.1E-04		2.9E-05		7.83E-03	7.53E-03			1.40E-04	7.8E-03	
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03			0.55		1.8E-04	1.58E-03	1.96E-03	1.89E-03			3.7E-01	0.37	
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03			6.8E-02		1.3E-04	1.05E-03	3.90E-03	3.75E-03			4.52E-02	0.05	
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04					9.1E-05	5.25E-04	1.47E-04	1.41E-04				5.3E-04	
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02			1.1E-02		7.4E-04	5.25E-04	1.10E-01	1.06E-01			7.32E-03	0.110	
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04			negl		8.4E-06	2.63E-03	8.88E-04	8.54E-04			negl	2.6E-03	
1,1,1-Trichloroethane			2.36E-04	2.36E-04								3.07E-04	2.95E-04			3.1E-04	
1,3-Butadiene								5.47E-03								0.0E+00	
Acetaldehyde								1.07E-01								0.00	
Acrolein								1.30E-02								0.0E+00	
Benzene	2.1E-03		2.14E-04	2.14E-04				1.31E-01	7.4E-04		2.78E-04	2.68E-04				0.00	
Bis(2-ethylhexyl)phthalate							2.2E-03								2.75E-03	negl	
Dichlorobenzene	1.2E-03						8.0E-07		4.2E-04						1.00E-06	4.2E-04	
Ethylbenzene			6.36E-05	6.36E-05							8.27E-05	7.95E-05				8.3E-05	
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				1.65E-01	2.6E-02	7.63E-02	4.29E-02	4.13E-02				0.076	
Hexane	1.8E+00								0.63							0.630	
Phenol						2.4E-03									3.00E-03	negl	
Toluene	3.4E-03		6.20E-03	6.20E-03				5.73E-02	1.2E-03		8.06E-03	7.75E-03				8.1E-03	
Total PAH Haps	negl		1.13E-03	1.13E-03			3.9E-02	2.35E-02	negl		1.47E-03	1.41E-03			4.89E-02	0.05	
Polycyclic Organic Matter		3.30E-03								4.13E-03						4.1E-03	
Xylene			1.09E-04	1.09E-04				3.99E-02			1.42E-04	1.36E-04				1.4E-04	
Total HAPs									0.66	0.09	0.19	0.18	0	0	5.57	6.40	

Methodology

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

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

Abbreviations

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

**Appendix A: Emissions Calculations
Fuel Equivalency Calculations**

Company Name: Rogers Group Inc. - Bloomington Asphalt I
Address City IN Zip: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Plt ID: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date: October 17, 2007

**Note: these equivalencies are related back to the No. 4 Fuel Oil, since it is the predominantly used fuel at this source*

Fuel Type	Limited Fuel Usage	Fuel Usage Units	SO2 Equivalency					NOx Equivalency				
			Limited Sulfur Content	Limited Sulfur Content Units	AP-42 Emission Factor	Emission Factor Units	Fuel Equivalency	Fuel Equivalency Units	AP-42 Emission Factor	Emission Factor Units	Fuel Equivalency	Fuel Equivalency Units
Natural Gas	700	MMCF/yr	NA	NA	0.6	lb/MMCF	125.00	MMCF natural gas / 1000 gal No. 4 fuel oi	280	lb/MMCF	0.17	MMCF natural gas / 1000 gal No. 4 fuel oi
No. 2 Fuel Oil	2,500,000	gal/yr	0.50	% by weight	78.50	lb/kgal	0.96	gal No. 2 fuel oil / gal No. 4 fuel oi	24.0	lb/kgal	1.96	gal No. 2 fuel oil / gal No. 4 fuel oi
No. 4 Fuel Oil	2,600,000	gal/yr	0.50	% by weight	75.00	lb/kgal	1.00	gal No. 4 fuel oil / gal No. 4 fuel oi	47.0	lb/kgal	1.00	gal No. 4 fuel oil / gal No. 4 fuel oi
No. 6 Fuel Oil	2,500,000	gal/yr	0.50	% by weight	78.50	lb/kgal	0.96	gal No. 6 fuel oil / gal No. 4 fuel oi	47.0	lb/kgal	1.00	gal No. 6 fuel oil / gal No. 4 fuel oi
Propane	10,300,000	gal/yr	0.20	gr/100 ft3 sulfur	0.020	lb/kgal	3750	gal propane / gal No. 4 fuel oi	19.0	lb/kgal	2.47	gal propane / gal No. 4 fuel oi
Butane	9,300,000	gal/yr	0.22	gr/100 ft3 sulfur	0.0198	lb/kgal	3788	gal butane / gal No. 4 fuel oi	21.0	lb/kgal	2.24	gal butane / gal No. 4 fuel oi
Waste Oil	1,330,000	gal/yr	1.0	% by weight	147.00	lb/kgal	0.51	gal waste oil / gal No. 4 fuel oi	19.0	lb/kgal	2.47	gal waste oil / gal No. 4 fuel oi
Diesel Engine Oil	320,000	gal/yr	NA	NA	40.6	lb/kgal	1.85	gal diesel engine oil / gal No. 4 fuel oi	617.4	lb/kgal	0.08	gal diesel engine oil / gal No. 4 fuel oi

Methodology

Fuel Equivalency = [AP-42 Emission Factor for No. 4 fuel oil (lb/kgal)] / [AP-42 Emission Factor for any fuel type (lb/kgal or lb/MMCF)]

Appendix A: Emissions Calculations

Limited Emissions

Dryer/Mixer

Volatile Organic Compounds and Hazardous Air Pollutants

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

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

Annual Asphalt Production Limitation =	950,000	ton/yr
PM Dryer/Mixer Limitation =	0.380	lb/ton of asphlt production
PM10 Dryer/Mixer Limitation =	0.160	lb/ton of asphlt production
VOC Dryer/Mixer Limitation =	0.200	lb/ton of asphlt production
CO Dryer/Mixer Limitation =	0.195	lb/ton of asphlt production

Criteria Pollutant*	Emission Factor or Limitation (lb/ton)			Limited/Controlled Potential to Emit (tons/yr)			Worse Case PTE
	Drum Hot-Mix Plant (dryer/mixer, controlled by cyclone and jet pulse baghouse)			Drum Hot-Mix Plant (dryer/mixer, controlled by cyclone and jet pulse baghouse)			
	Natural Gas	No. 2 Fuel Oil	No. 6 Fuel Oil or Waste Oil	Natural Gas	No. 2 Fuel Oil	No. 6 Fuel Oil or Waste Oil	
PM	0.38	0.38	0.38	180.5	180.5	180.5	180.5
PM10	0.16	0.16	0.16	76.0	76.0	76.0	76.0
SO2	0.0034	0.011	0.058	1.6	5.2	27.6	27.6
NOx	0.026	0.055	0.055	12.4	26.1	26.1	26.1
VOC	0.2	0.2	0.2	95.0	95.0	95.0	95.0
CO	0.195	0.195	0.195	92.6	92.6	92.6	92.6
Hazardous Air Pollutant							
HCl			2.10E-04			0.10	0.10
Antimony	1.80E-07	1.80E-07	1.80E-07	8.55E-05	8.55E-05	8.55E-05	8.55E-05
Arsenic	5.60E-07	5.60E-07	5.60E-07	2.66E-04	2.66E-04	2.66E-04	2.66E-04
Beryllium	negl	negl	negl	negl	negl	negl	negl
Cadmium	4.10E-07	4.10E-07	4.10E-07	1.95E-04	1.95E-04	1.95E-04	1.95E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	2.61E-03	2.61E-03	2.61E-03	2.61E-03
Cobalt	2.60E-08	2.60E-08	2.60E-08	1.24E-05	1.24E-05	1.24E-05	1.24E-05
Lead	6.20E-07	1.50E-05	1.50E-05	2.95E-04	7.13E-03	7.13E-03	7.13E-03
Manganese	7.70E-06	7.70E-06	7.70E-06	3.66E-03	3.66E-03	3.66E-03	3.66E-03
Mercury	2.40E-07	2.60E-06	2.60E-06	1.14E-04	1.24E-03	1.24E-03	1.24E-03
Nickel	6.30E-05	6.30E-05	6.30E-05	2.99E-02	2.99E-02	2.99E-02	0.03
Selenium	3.50E-07	3.50E-07	3.50E-07	1.66E-04	1.66E-04	1.66E-04	1.66E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	1.90E-02	1.90E-02	1.90E-02	0.02
Acetaldehyde			1.30E-03			0.62	0.62
Acrolein			2.60E-05			1.24E-02	0.01
Benzene	3.90E-04	3.90E-04	3.90E-04	0.19	0.19	0.19	0.19
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.11	0.11	0.11	0.11
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	1.47	1.47	1.47	1.47
Hexane	9.20E-04	9.20E-04	9.20E-04	0.44	0.44	0.44	0.44
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.02	0.02	0.02	0.02
MEK			2.00E-05			0.01	0.01
Propionaldehyde			1.30E-04			0.06	0.06
Quinone			1.60E-04			0.08	0.08
Toluene	1.50E-04	2.90E-03	2.90E-03	0.07	1.38	1.38	1.38
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.09	0.42	0.42	0.42
Xylene	2.00E-04	2.00E-04	2.00E-04	0.10	0.10	0.10	0.10
Total HAPs						5.06	
Worst Single HAP						1.4725	(formaldehyde)

Methodology

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

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

*Emission of PM, PM10, SO2, NOx, and, CO from Drum-Mix Plants are included with the emission calculations for fuel combustion.

Abbreviations

VOC - Volatile Organic Compounds
 HCl = Hydrogen Chloride
 SO2 = Sulfur Dioxide

HAP = Hazardous Air Pollutant
 PAH = Polyaromatic Hydrocarbon

Appendix A: Emissions Calculations
Limited Emissions for Avoidance of 326 IAC 8-1-6 BACT
Dryer/Mixer
Volatile Organic Compounds

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

**The following calculations determine the limited emissions from the aggregate drying/mixing in order to render 326 IAC 8-1-6 not applicable.*

Annual Asphalt Production Limitation = 950,000 ton/yr
VOC Dryer/Mixer Limitation = 0.052 lb/ton of asphalt production

Criteria Pollutant*	Emission Limitation (lb/ton)			Limited/Controlled Potential to Emit (tons/yr)			Worse Case PTE
	Drum Hot-Mix Plant (dryer/mixer, controlled by cyclone and jet pulse baghouse)			Drum Hot-Mix Plant (dryer/mixer, controlled by cyclone and jet pulse baghouse)			
	Natural Gas	No. 2 Fuel Oil	No. 6 Fuel Oil or Waste Oil	Natural Gas	No. 2 Fuel Oil	No. 6 Fuel Oil or Waste Oil	
VOC	0.052	0.052	0.052	24.7	24.7	24.7	24.7

Methodology

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

Abbreviations

VOC - Volatile Organic Compounds

**Appendix A: Emissions Calculations
Limited Emissions
Load-Out and On-Site Yard Emissions**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

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

Asphalt Temperature, T =	325	F
Asphalt Volatility Factor, V =	-0.5	
Annual Asphalt Production Limitation =	950,000	tons/yr

Pollutant	Emission Factor (lb/ton asphalt)		Limited Potential to Emit (tons/yr)		
	Load-Out	On-Site Yard	Load-Out	On-Site Yard	Total
Total PM	5.2E-04	NA	0.25	NA	0.25
Organic PM	3.4E-04	NA	0.16	NA	0.16
TOC	0.004	0.001	1.98	0.523	2.5
CO	0.001	3.5E-04	0.64	0.167	0.81

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

PM/HAPs	0.012	0	0.012
VOC/HAPs	0.029	0.008	0.037
non-VOC/HAPs	1.5E-04	4.0E-05	1.9E-04
non-VOC/non-HAPs	0.14	0.04	0.18

Total VOCs	1.86	0.5	2.3
Total HAPs	0.04	0.008	0.05
Worst Single HAP			0.010
			(formaldehyde)

Methodology

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

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

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

$$\text{Total PM/PM}_{10} \text{ Ef} = 0.000181 + 0.00141(-V)e^{((0.0251)(T+460)-20.43)}$$

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

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

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

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

Abbreviations

TOC = Total Organic Compounds

CO = Carbon Monoxide

PM = Particulate Matter

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

**Appendix A: Emissions Calculations
Limited Emissions
Load-Out and On-Site Yard Emissions (continued)**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

Organic Particulate-Based Compounds (Table 11.1-15)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile	Limited Potential to Emit (tons/yr)		
					Load-out and Onsite Yard (% by weight of Total Organic PM)	Load-out	Onsite Yard	Total
PAH HAPs								
Acenaphthene	83-32-9	PM/HAP	POM	Organic PM	0.26%	4.2E-04	NA	4.2E-04
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	4.5E-05	NA	4.5E-05
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	1.1E-04	NA	1.1E-04
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	3.1E-05	NA	3.1E-05
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	1.2E-05	NA	1.2E-05
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	3.6E-06	NA	3.6E-06
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	3.1E-06	NA	3.1E-06
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	3.7E-06	NA	3.7E-06
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	1.3E-05	NA	1.3E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	1.7E-04	NA	1.7E-04
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	6.0E-07	NA	6.0E-07
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	8.1E-05	NA	8.1E-05
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.2E-03	NA	1.2E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	7.6E-07	NA	7.6E-07
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	3.9E-03	NA	0.004
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	2.0E-03	NA	2.0E-03
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	3.6E-05	NA	3.6E-05
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.3E-03	NA	1.3E-03
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	2.4E-04	NA	2.4E-04
Total PAH HAPs						0.010	NA	0.010
Other semi-volatile HAPs								
Phenol		PM/HAP	---	Organic PM	1.18%	1.9E-03	0	1.9E-03

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

Methodology

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

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

Abbreviations

PM = Particulate Matter

HAP = Hazardous Air Pollutant

POM = Polycyclic Organic Matter

Organic Volatile-Based Compounds (Table 11.1-16)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile	Limited Potential to Emit (tons/yr)		
					Load-out and Onsite Yard (% by weight of TOC)	Load-out	Onsite Yard	Total
VOC		VOC	---	TOC	94%	1.86	0.49	2.35
non-VOC/non-HAPS								
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	1.3E-01	3.4E-02	0.162
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	9.1E-04	2.4E-04	0.001
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.4E-02	3.7E-03	0.018
Total non-VOC/non-HAPS					7.30%	0.144	0.038	0.18
Volatile organic HAPs								
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	1.0E-03	2.7E-04	1.3E-03
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	1.9E-04	5.0E-05	2.4E-04
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	9.7E-04	2.6E-04	1.2E-03
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	2.6E-04	6.8E-05	3.2E-04
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	4.1E-06	1.1E-06	5.2E-06
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	3.0E-04	7.8E-05	3.7E-04
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	2.2E-03	5.7E-04	2.7E-03
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	5.5E-03	1.5E-03	0.007
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	1.7E-03	4.6E-04	0.002
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	3.0E-03	7.8E-04	0.004
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	3.6E-05	9.4E-06	4.5E-05
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0	0	0.0E+00
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	1.4E-04	3.8E-05	1.8E-04
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	1.5E-04	4.0E-05	1.9E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	4.1E-03	1.1E-03	0.005
1,1,1-Trichloroethane	71-55-6	VOC/HAP	---	TOC	0	0	0	0
Trichloroethene	79-01-6	VOC/HAP	---	TOC	0	0	0	0
Trichlorofluoromethane	75-69-4	VOC/HAP	---	TOC	0.0013%	2.6E-05	6.8E-06	3.2E-05
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	8.1E-03	2.1E-03	0.010
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	1.6E-03	4.2E-04	2.0E-03
Total volatile organic HAPs					1.50%	0.030	0.008	0.037

Methodology

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

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

Abbreviations

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

**Appendix A: Emissions Calculations
Material Storage Piles**

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

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

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

where E_f = emission factor (lb/acre/day)
 s = silt content (wt %)
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % of wind greater than or equal to 12 mph

Material	Silt Content (wt %)*	Emission Factor (lb/acre/day)	Maximum Anticipated Pile Size (acres)**	PTE of PM (tons/yr)	PTE of PM10 (tons/yr)
Limestone	1.6	1.85	0.75	0.253	0.089
Sand	2.6	3.01	0.75	0.412	0.144
RAP	0.5	0.58	0.75	0.079	0.028
Gravel	1.6	1.85	0.75	0.253	0.089
Slag	3.8	4.40	0.75	0.602	0.211
Totals				1.60	0.56

Methodology

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

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

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

**Maximum pile size (acres) anticipated for a source with an annual asphalt production of 1,000,000 tons/yr

Abbreviations

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PTE = Potential to Emit

**Appendix A: Emissions Calculations
Limited Emissions**

Fugitive Dust Emissions - Material Processing and Handling

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

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

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

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

where: E_f = Emission factor (lb/ton)
 k (PM) = 0.74 = particle size multiplier (0.74 assumed for aerodynamic diameter ≤ 100 μ m)
 k (PM10) = 0.35 = particle size multiplier (0.35 assumed for aerodynamic diameter ≤ 10 μ m)
 U = 10.2 = worst case annual mean wind speed (Source: NOAA, 2005*)
 M = 4.0 = material % moisture content of aggregate (Source: AP-42 Section 11.1.1.1)
 E_f (PM) = 2.27E-03 lb PM/ton of material handled
 E_f (PM10) = 1.07E-03 lb PM10/ton of material handled

Annual Asphalt Production Limitation = 950,000 tons/yr
 Percent Asphalt Cement/Binder (weight %) = 5.0%
 Maximum Material Handling Throughput = 902,500 tons/yr

Type of Activity	Limited PTE of PM (tons/yr)	Limited PTE of PM10 (tons/yr)
Truck unloading of materials into storage piles	1.02	0.48
Front-end loader dumping of materials into feeder bins	1.02	0.48
Conveyor dropping material into dryer/mixer or batch tower	1.02	0.48
Total (tons/yr)	3.07	1.45

Methodology

Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
 Limited Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
 Raw materials may include limestone, sand, recycled asphalt pavement (RAP), gravel, slag, and other additives
 *Worst case annual mean wind speed (South Bend, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2005

Material Screening and Conveying (AP-42 Section 19.2.2)

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

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Limited PTE of PM (tons/yr)	Limited PTE of PM10 (tons/yr)
Crushing	0.0054	0.0024	2.44	1.08
Screening	0.025	0.0087	11.28	3.93
Conveying	0.003	0.0011	1.35	0.50

Appendix A: Emissions Calculations
Limited Emissions
Fugitive Dust Emissions - Unpaved Roads

Company Name: Rogers Group Inc. - Bloomington Asphalt II
Source Address: 1100 Oard Road, Bloomington, IN 47404
Permit Number: 105-13992-03182
Permit Revision Number: 105-25414-03182
Reviewer: Hannah L. Desrosiers
Date Application Submitted: October 17, 2007

Unpaved Roads at Industrial Site

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

Annual Asphalt Production Limitation =	950,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	902,500	tons/yr
Maximum Asphalt Cement/Binder Throughput =	47,500	tons/yr
No. 2 Fuel Oil Limitation =	2,500,000	gallons/yr
No. 4 Fuel Oil Limitation =	2,600,000	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	20.0	15.0	35	60,166.7	2,105,833.3	528	0.100	6016.7
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	20.0	0	20.0	60,166.7	1,203,333.3	528	0.100	6016.7
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6,500 gal)	10.0	38.0	48.0	1,250.0	60,000.0	1200	0.227	284.1
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6,500 gal)	10.0	0	10.0	1,250.0	12,500.0	1200	0.227	284.1
Fuel Oil Truck Enter Full	Tanker truck (6,500 gal)	10.0	38.0	48.0	222.4	10,673.7	1200	0.227	50.5
Fuel Oil Truck Leave Empty	Tanker truck (6,500 gal)	10.0	0	10.0	222.4	2,223.7	1200	0.227	50.5
Aggregate/RAP Loader Full	Front-end loader (3 CY)	5.0	10.0	15.0	90,250.0	1,353,750.0	528	0.100	9025.0
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	5.0	0	5.0	90,250.0	451,250.0	528	0.100	9025.0
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	20.0	15.0	35.0	63,333.3	2,216,666.7	528	0.100	6333.3
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	20.0	0	20.0	63,333.3	1,266,666.7	528	0.100	6333.3
Total						430,444.7	8,682,897.4		43,419.3

Average Vehicle Weight Per Trip = 20.2 tons/trip
Average Miles Per Trip = 0.101 miles/trip

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

	PM	PM10	
where k =	4.9	1.5	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant)
a =	0.7	0.9	= constant (AP-42 Table 13.2.2-2)
W =	20.2	20.2	tons = average vehicle weight (provided by source)
b =	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

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

	PM	PM10	
Unmitigated Emission Factor, $E_f =$	6.08	1.55	lb/mile
Mitigated Emission Factor, $E_{ext} =$	4.00	1.02	lb/mile
Dust Control Efficiency =	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	18.30	4.66	12.03	3.07	6.02	1.53
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	18.30	4.66	12.03	3.07	6.02	1.53
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6,500 gal)	0.864	0.220	0.568	0.145	0.284	0.072
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6,500 gal)	0.864	0.220	0.568	0.145	0.284	0.072
Fuel Oil Truck Enter Full	Tanker truck (6,500 gal)	0.154	0.039	0.101	0.026	0.051	0.013
Fuel Oil Truck Leave Empty	Tanker truck (6,500 gal)	0.154	0.039	0.101	0.026	0.051	0.013
Aggregate/RAP Loader Full	Front-end loader (3 CY)	27.45	7.00	18.05	4.60	9.02	2.30
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	27.45	7.00	18.05	4.60	9.02	2.30
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	19.26	4.91	12.66	3.23	6.33	1.61
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	19.26	4.91	12.66	3.23	6.33	1.61
Totals		132.05	33.65	86.82	22.13	43.41	11.06

Methodology

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

Abbreviations

PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PTE = Potential to Emit

Appendix A: Emissions Calculations

Limited Emissions

Fugitive Dust Emissions - Paved Roads

Company Name: Rogers Group Inc. - Bloomington Asphalt II

Source Address: 1100 Oard Road, Bloomington, IN 47404

Permit Number: 105-13992-03182

Permit Revision Number: 105-25414-03182

Reviewer: Hannah L. Desrosiers

Date Application Submitted: October 17, 2007

Paved Roads at Industrial Site

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

Annual Asphalt Production Limitation =	950,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	902,500	tons/yr
Maximum Asphalt Cement/Binder Throughput =	47,500	tons/yr
No. 2 Fuel Oil Limitation =	2,500,000	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per day (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	20.0	15.0	35.00	60166.7	2105833.3	528	0.100	6016.7
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	20.0	0	20.00	60166.7	1203333.3	528	0.100	6016.7
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6,500 gal)	10.0	38.0	48.00	1250.0	60000.0	1200	0.227	284.1
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6,500 gal)	10.0	0	10.00	1250.0	12500.0	1200	0.227	284.1
Fuel Oil Truck Enter Full	Tanker truck (6,500 gal)	10.0	38.0	48.00	222.4	10673.7	1200	0.227	50.5
Fuel Oil Truck Leave Empty	Tanker truck (6,500 gal)	10.0	0	10.00	222.4	2223.7	1200	0.227	50.5
Aggregate/RAP Loader Full	Front-end loader (3 CY)	5.0	10.0	15.00	90250.0	1353750.0	528	0.100	9025.0
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	5.0	0	5.00	90250.0	451250.0	528	0.100	9025.0
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	20.0	15.0	35.00	63333.3	2216666.7	528	0.100	6333.3
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	20.0	0	20.00	63333.3	1266666.7	528	0.100	6333.3
Total					430444.7	8682897.4			43419.3

Average Vehicle Weight Per Trip =	20.2	tons/trip
Average Miles Per Trip =	0.101	miles/trip

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

	PM	PM10	
where k =	0.082	0.016	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
W =	20.2	20.2	tons = average vehicle weight (provided by source)
C =	0.00047	0.00047	lb/mi = emission factor for vehicle exhaust, brake wear, and tire wear (AP-42 Table 13.2.1-2)
sL =	0.6	0.6	g/m ² = Ubiquitous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer r

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

Mitigated Emission Factor, $E_{ext} = E_f * [1 - (p/4N)]$

where p =	125	days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N =	365	days per year

	PM	PM10	
Unmitigated Emission Factor, $E_f =$	0.65	0.13	lb/mile
Mitigated Emission Factor, $E_{ext} =$	0.60	0.12	lb/mile
Dust Control Efficiency =	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	1.97	0.38	1.80	0.35	0.90	0.17
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	1.97	0.38	1.80	0.35	0.90	0.17
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.093	0.018	0.085	0.017	0.042	8.3E-03
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.093	0.018	0.085	0.017	0.042	8.3E-03
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	1.7E-02	3.2E-03	1.5E-02	2.9E-03	7.5E-03	1.5E-03
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	1.7E-02	3.2E-03	1.5E-02	2.9E-03	7.5E-03	1.5E-03
Aggregate/RAP Loader Full	Front-end loader (3 CY)	2.95	0.57	2.70	0.52	1.35	0.26
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	2.95	0.57	2.70	0.52	1.35	0.26
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	2.07	0.40	1.89	0.37	0.95	0.18
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	2.07	0.40	1.89	0.37	0.95	0.18
Totals		14.18	2.76	12.97	2.52	6.48	1.26

Methodology

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

Abbreviations

PM = Particulate Matter
 PM10 = Particulate Matter (<10 um)
 PTE = Potential to Emit