



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

Michael R. Pence  
Governor

Carol S. Comer  
Commissioner

## NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding the Renewal of a  
Federally Enforceable State Operating Permit (FESOP)  
for Milestone Contractors, L.P. in Hamilton County

FESOP Renewal No.: F057-36556-03289

The Indiana Department of Environmental Management (IDEM) has received an application from Milestone Contractors, L.P. located at 5160 East 96th Street, Indianapolis, Indiana 46240 for a renewal of its FESOP issued on September 18, 2006. If approved by IDEM's Office of Air Quality (OAQ), this proposed renewal would allow Milestone Contractors, L.P. to continue to operate its existing source.

This draft FESOP Renewal does not contain any new equipment that would emit air pollutants; however, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g., changes that add or modify synthetic minor emission limits). This notice fulfills the public notice procedures to which those conditions are subject. IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow for these changes.

A copy of the permit application and IDEM's preliminary findings are available at:

Carmel Clay Public Library  
55 4th Avenue SE  
Carmel, IN 46032

A copy of the preliminary findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

### How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30<sup>th</sup> day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number F057-36556-03289 in all correspondence.

**Comments should be sent to:**

Tamara Havics  
IDEM, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(800) 451-6027, ask for extension 2-8219  
Or dial directly: (317) 232-8219  
Fax: (317) 232-6749 attn: Tamara Havics  
E-mail: THavics@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**What will happen after IDEM makes a decision?**

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, and the IDEM public file room on the 12<sup>th</sup> floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Tamara Havics of my staff at the above address.



Jason R. Krawczyk, Section Chief  
Permits Branch  
Office of Air Quality



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## DRAFT

# Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

**Milestone Contractors, L.P.  
5160 East 96th Street  
Indianapolis, Indiana 46240**

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

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

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

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

Operation Permit No.: F057-36556-03289	
Issued by:	Issuance Date:
Jason R. Krawczyk, Section Chief Permits Branch Office of Air Quality	Expiration Date:

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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)]**

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The Permittee owns and operates a stationary hot drum mix asphalt plant, and cold-mix asphalt production operation. Recycled asphalt pavement (RAP) is crushed on-site, and blast furnace slag, electric arc furnace steel mill slag, and/or asbestos-free recycled asphalt shingles are processed in the aggregate mix. This source does not grind any shingles on-site.

Source Address:	5160 East 96th Street, Indianapolis, Indiana 46240
General Source Phone Number:	317-788-6885
SIC Code:	2951 (Asphalt Paving Mixtures and Blocks)
County Location:	Hamilton
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

- (a) one (1) aggregate drum mix asphalt plant, identified as emission unit No. 2, constructed in 1996, approved for modification in 2012, with a maximum throughput capacity of 600 tons of raw material per hour, processing blast furnace slag, steel slag, and recycled asphalt shingles (certified asbestos-free, factory seconds and/or post-consumer waste, only), in the aggregate mix, equipped with one (1) natural gas fired aggregate dryer burner with a maximum rated capacity of 200 million British thermal units per hour (MMBtu/hr) using No. 2 distillate fuel oil and re-refined waste oil as back-up fuels and one (1) knock out box and one (1) baghouse for air pollution control, exhausting at one (1) stack, identified as DS-1;
- (b) one (1) cold feed system consisting of nine (9) compartments with a total aggregate holding capacity of 450 tons;
- (c) Reclaimed Asphalt Pavement (RAP) bins with a capacity of 120 tons;
- (d) one (1) drag slat conveyor, four (4) feed conveyors, and one (1) screen;
- (e) Raw material storage piles consisting of the following:
  - (1) aggregate storage piles with a total maximum storage capacity of 32,159 tons;
  - (2) one (1) RAP storage pile with a total maximum storage capacity of 8,640 tons;
  - (3) Blast furnace and/or electric arc steel slag storage piles, with a maximum anticipated pile size of 0.40 acres.

- (4) Recycled asphalt shingles (certified asbestos-free, factory seconds and/or post-consumer waste, only) storage piles, with a maximum anticipated pile size of 0.40 acres.
- (f) three (3) storage silos each with a maximum storage capacity of 300 tons;
- (g) four (4) storage silos each with a maximum storage capacity of 200 tons;
- (h) one (1) dust storage silo with a maximum capacity of 650 barrels;
- (i) one (1) dust pod;

Under 40 CFR 60, Subpart I, New Source Performance Standards for Hot-mix Asphalt Plants, this source is considered an affected facility.

- (j) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2012, with a maximum throughput capacity of 200 tons of RAP per hour; and

Under 40 CFR 60, Subpart OOO, New Source Performance Standards for Nonmetallic Mineral Processing Plants, this is considered an affected facility.

Under 40 CFR 1068.30, General Compliance Provisions for Highway, Stationary, and Nonroad Programs - Definitions, this unit this is considered a nonroad engine.

- (k) cold-mix (stockpile mix) asphalt manufacturing operations and storage piles.

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

This stationary source also includes the following insignificant activities:

- (a) one (1) natural gas fired hot oil heater rated at 2.2 MMBtu per hour, identified as emission unit No. 17, using No. 2 fuel oil as back-up fuel, and exhausting at one (1) stack, identified as DS-6;
- (b) five (5) liquid asphalt storage tanks, identified as Tanks 14, 15, 16, 18, and 19, each with a maximum storage capacity of 20,000 gallons, with emissions exhausted to Stacks DV-3, DV-5, DV-6, DV-8 and DV9, respectively;
- (c) one (1) liquid asphalt storage tank, identified as Tank 22, with a maximum storage capacity of 30,000 gallons, exhausting at one (1) stack, identified as DV-7;
- (d) one (1) double-walled re-refined waste oil storage tank, identified as Tank F03, with a maximum storage capacity of 30,000 gallons; and
- (e) one (1) double-walled No. 2 fuel oil storage tank, identified as Tank F04, with a maximum storage capacity of 10,000 gallons;
- (f) one liquid asphalt calibration tank, identified as Tank 17.
- (g) a petroleum fuel, other than gasoline, dispensing facility, 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;
- (h) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

- (i) application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (j) cleaners and solvents having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100°F) or; having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20°C (68°); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months;
- (k) combustion source flame safety purging on startup;
- (l) closed loop heating and cooling systems;
- (m) a laboratory as defined in 326 IAC 2-7-1(21)(D); and
- (n) paved and unpaved roads and parking lots with public access.

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]

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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)]

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- (a) This permit, F057-36556-03289, 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]

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

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

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

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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)]

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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)]

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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)]

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

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

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

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

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

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

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

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

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

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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)]

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

The Permittee shall implement the PMPs.

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

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

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

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

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865

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

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

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

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

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

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

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

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

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

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- (a) All terms and conditions of permits established prior to F057-36556-03289 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)]**

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

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

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

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

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

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:

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

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

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

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

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

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). 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)(1) and (c).

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

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

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

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

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

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:  
  
Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

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

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

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

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

**SECTION C**

**SOURCE OPERATION CONDITIONS**

Entire Source

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

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

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

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

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

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

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

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

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

**C.3 Opacity [326 IAC 5-1]**

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

- (a) Opacity shall not exceed an average of 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]

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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]

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

C.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]

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

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

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

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

---

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

## **Compliance Requirements [326 IAC 2-1.1-11]**

### **C.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(1)][326 IAC 2-8-5(a)(1)]**

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

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

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

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

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

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

---

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:
  - (AA) All calibration and maintenance records.
  - (BB) All original strip chart recordings for continuous monitoring instrumentation.
  - (CC) Copies of all reports required by the FESOP.Records of required monitoring information include the following, where applicable:
  - (AA) The date, place, as defined in this permit, and time of sampling or measurements.
  - (BB) The dates analyses were performed.
  - (CC) The company or entity that performed the analyses.
  - (DD) The analytical techniques or methods used.
  - (EE) The results of such analyses.
  - (FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

**C.19 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. Proper notice submittal under Section B -Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to

an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

- (b) The address for report submittal is:

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

### **Stratospheric Ozone Protection**

#### **C.20 Compliance with 40 CFR 82 and 326 IAC 22-1**

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

**SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

- (a) one (1) aggregate drum mix asphalt plant, identified as emission unit No. 2, constructed in 1996, approved for modification in 2012, with a maximum throughput capacity of 600 tons of raw material per hour, processing blast furnace slag, steel slag, and recycled asphalt shingles (certified asbestos-free, factory seconds and/or post-consumer waste, only), in the aggregate mix, equipped with one (1) natural gas fired aggregate dryer burner with a maximum rated capacity of 200 million British thermal units per hour (MMBtu/hr) using No. 2 distillate fuel oil and re-refined waste oil as back-up fuels and one (1) knock out box and one (1) baghouse for air pollution control, exhausting at one (1) stack, identified as DS-1;
- (b) one (1) cold feed system consisting of nine (9) compartments with a total aggregate holding capacity of 450 tons;
- (c) Reclaimed Asphalt Pavement (RAP) bins with a capacity of 120 tons;
- (d) one (1) drag slat conveyor, four (4) feed conveyors, and one (1) screen;
- (e) Raw material storage piles consisting of the following:
  - (1) aggregate storage piles with a total maximum storage capacity of 32,159 tons;
  - (2) one (1) RAP storage pile with a total maximum storage capacity of 8,640 tons;
  - (3) Blast furnace and/or electric arc steel slag storage piles, with a maximum anticipated pile size of 0.40 acres.
  - (4) Recycled asphalt shingles (certified asbestos-free, factory seconds and/or post-consumer waste, only) storage piles, with a maximum anticipated pile size of 0.40 acres.
- (f) three (3) storage silos each with a maximum storage capacity of 300 tons;
- (g) four (4) storage silos each with a maximum storage capacity of 200 tons;
- (h) one (1) dust storage silo with a maximum capacity of 650 barrels;
- (i) one (1) dust pod;

Under 40 CFR 60, Subpart I, New Source Performance Standards for Hot-mix Asphalt Plants, this source is considered an affected facility.

- (j) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2012, with a maximum throughput capacity of 200 tons of RAP per hour; and

Under 40 CFR 60, Subpart OOO, New Source Performance Standards for Nonmetallic Mineral Processing Plants, this is considered an affected facility.

Under 40 CFR 1068.30, General Compliance Provisions for Highway, Stationary, and Nonroad Programs - Definitions, this unit this is considered a nonroad engine.

**Insignificant Activities:**

- (a) one (1) natural gas fired hot oil heater rated at 2.2 MMBtu per hour, identified as emission unit No. 17, using No. 2 fuel oil as back-up fuel, and exhausting at one (1) stack, identified as DS-6;

(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 PSD Minor Limit [326 IAC 2-2]**

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

- (a) The amount of asphalt processed shall not exceed 1,417,701 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The PM emissions from the dryer/mixer shall not exceed 0.260 pounds per ton of asphalt processed.
- (c) The Permittee shall control PM emissions from the paved and unpaved roads according to the fugitive dust plan, included as Attachment A to the permit.

Compliance with these limitations, combined with the limited potential to emit from other emission units at this source, shall limit the source-wide total potential to emit PM to less than 250 tons per 12 consecutive month period and shall render 326 IAC 2-2 (PSD) not applicable.

**D.1.2 FESOP Limits: PM10, PM2.5, VOC, and CO [326 IAC 2-8-4][326 IAC 2-2]  
[326 IAC 8-1-6]**

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

- (a) The amount of asphalt processed shall not exceed 1,417,701 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The PM10 emissions from the dryer/mixer shall not exceed 0.106 pounds per ton of asphalt processed.
- (c) The PM2.5 emissions from the dryer/mixer shall not exceed 0.119 pounds of PM2.5 per ton of asphalt produced.
- (d) The VOC emissions from the dryer/mixer shall not exceed 0.032 pounds per ton of asphalt processed.
- (e) The CO emissions from the dryer/mixer shall not exceed 0.130 pounds per ton of asphalt processed.
- (f) The Permittee shall control PM10 and PM2.5 emissions from the paved and unpaved roads according to the fugitive dust plan, included as Attachment A to the permit.

Compliance with these limits, combined with the potential to emit PM10, PM2.5, VOC, and CO from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5, VOC, and CO to less than 100 tons per twelve (12) consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Additionally, compliance with the limits in Conditions D.1.2(a) and D.1.2(d) shall limit the VOC

emissions from the dryer/mixer to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable.

D.1.3 FESOP Limits: SO<sub>2</sub>, NO<sub>x</sub>, and HAPs [326 IAC 2-8-4][326 IAC 2-2]  
[326 IAC 2-4.1]

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Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), 326 IAC 2-7 (Part 70 Permits), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable, the Permittee shall comply with the following:

(a) Fuel and Slag Specifications

- (1) The sulfur content of the No. 2 distillate fuel oil shall not exceed 0.50% by weight.
- (2) The sulfur content of the waste oil shall not exceed 0.75% by weight.
- (3) The waste oil combusted in the dryer burner shall not contain more than 1.02% ash, 0.20% chlorine, and 0.010% lead.
- (4) The HCl emissions shall not exceed 13.2 pounds of HCl per 1,000 gallons of waste oil burned.
- (5) The sulfur content of the blast furnace slag shall not exceed 1.50% by weight.
- (6) The SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 0.740 pounds per ton of blast furnace slag processed in the aggregate mix.
- (7) The sulfur content of the steel slag shall not exceed 0.66% by weight.
- (8) The SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 0.0014 pounds per ton of steel slag processed in the aggregate mix.

(b) Single Fuel and Slag Usage Limitations:

When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer burner, the usage of fuel and slag shall be limited as follows:

- (1) Natural gas usage shall not exceed 986 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month;
- (2) No. 2 fuel oil usage shall not exceed 2,017,272 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month;
- (3) Waste oil usage shall not exceed 1,299,105 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month; and
- (4) The Blast Furnace slag usage shall not exceed 50,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) Multiple Fuel and Slag Usage Limitation:

When combusting any single fuel or more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, in conjunction with the use of slag in the aggregate mix, emissions from the dryer/mixer shall be limited as follows:

- (1) SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 90.11 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
  - (2) NO<sub>x</sub> emissions from the dryer/mixer shall not exceed 93.62 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (d) Asphalt Shingle Usage Limitation  
Pursuant to 326 IAC 2-8-4 (FESOP), and in order to ensure the requirements of 40 CFR 61, Subpart M are not applicable, the Permittee shall not grind recycled asphalt shingles on-site and shall only use the following as an additive in its aggregate mix:
- (1) Certified asbestos-free factory second asphalt shingles;
  - (2) Post-consumer waste shingles generated at single family homes and/or residential buildings containing four or fewer dwelling units; and/or
  - (3) Factory second shingles and/or post-consumer waste shingles that have sampled negative for asbestos.

Compliance with these limits, combined with the potential to emit SO<sub>2</sub>, NO<sub>x</sub>, and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of SO<sub>2</sub> and NO<sub>x</sub> to less than one hundred (100) tons per twelve (12) consecutive month period, each, any single HAP to less than ten (10) tons per twelve (12) consecutive month period, and total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)), and 40 CFR 61, Subpart M not applicable.

D.1.4 Particulate Emission Limits [326 IAC 6-2]

Pursuant to 326 IAC 6-2-4, the particulate emissions from the hot oil heater shall not exceed six tenths (0.6) pounds of particulate matter per MMBtu heat input.

D.1.5 Particulate Emission Limits [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the RAP crushing and screening operation shall not exceed 58.51 pounds per hour when operating at a process weight rate of 200 tons (or 400,000 pounds) per hour.

The pound per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.6 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1][326 IAC 7-2-1]

- (a) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), the Permittee shall comply with the following:
- (1) The sulfur dioxide (SO<sub>2</sub>) emissions from the dryer/mixer burner shall not exceed five tenths (0.5) pounds per MMBtu when using distillate oil.
  - (2) The sulfur dioxide (SO<sub>2</sub>) emissions from the dryer/mixer burner shall not exceed one and six tenths (1.6) pounds per MMBtu heat input when using residual oil.

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

#### D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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A Preventive Maintenance Plan is required for these facilities and any corresponding control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

### Compliance Determination Requirements [326 IAC 2-8-4(1)]

#### D.1.8 Particulate Control (PM/PM10/PM2.5)

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- (a) In order to assure compliance with Conditions D.1.1(b), D.1.2(b), and D.1.2(c), the baghouse for particulate control shall be in operation and control emissions from the dryer/mixer at all times when the dryer/mixer is in operation.
- (b) In order to assure compliance with Condition D.1.5, the wet suppression for particulate control shall be in operation and control emissions from the RAP crushing and screening operation at all times when the RAP crushing and screening is in operation.
- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

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- (a) In order to demonstrate compliance with Conditions D.1.1(b), D.1.2(b), and D.1.2(c), the Permittee shall perform PM, PM10, and PM2.5 testing of the dryer/mixer not later than five (5) years from the most recent valid compliance demonstration, utilizing methods approved by the Commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable particulate matter.
- (b) In order to demonstrate compliance with Condition D.1.3(a)(6), when using Blast Furnace slag, the Permittee shall perform SO<sub>2</sub> testing for the aggregate dryer within one hundred eighty (180) days of initial use of Blast Furnace slag in the aggregate mix, utilizing methods as approved by the Commissioner. Testing shall only be performed if the company has not previously performed SO<sub>2</sub> testing while using Blast Furnace slag in the aggregate mix at one of their other Indiana facilities. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

#### D.1.10 Sulfur Dioxide (SO<sub>2</sub>) Emissions and Sulfur Content

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##### **Fuel Oil**

- (a) Compliance with the fuel limitations established in Conditions D.1.3(a)(1), D.1.3(a)(2), and D.1.6, shall be determined utilizing one of the following options. Pursuant to 326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements) and 326 IAC 3-7-4 (Fuel oil sampling; analysis methods), compliance shall be demonstrated on a thirty (30) day calendar-month average.
  - (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 fuel via the procedures in 40 CFR 60, Appendix A, Method 19.
  - (A) Fuel samples may be collected from the fuel tank immediately after the fuel tank is filled and before any fuel is combusted; and
  - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (3) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the dryer/mixer burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

#### ***Blast Furnace Slag***

- (b) Compliance with the blast furnace slag limitation established in Condition D.1.3(a)(5) shall be determined utilizing one of the following options. Pursuant to 2-8-4 (FESOP), compliance shall be demonstrated on a thirty (30) day calendar-month average.
  - (1) Maintaining all records of vendor analyses or certifications of blast furnace slag delivered; or
  - (2) Analyzing a sample of each blast furnace slag delivery, if no vendor analyses or certifications are available, to determine the sulfur content of the blast furnace slag, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the dryer/mixer burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, or other procedures approved by IDEM, OAQ.

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

#### ***Steel Slag***

- (c) Compliance with the steel slag limitations established in Condition D.1.3(a)(7) shall be determined utilizing one of the following options. Pursuant to 2-8-4 (FESOP), compliance shall be demonstrated on a thirty (30) day calendar-month average.
  - (1) Maintaining all records of vendor analyses or certifications of steel slag delivered; or
  - (2) Analyzing a sample of the steel slag delivery if no vendor analyses or certifications are available, at least once per quarter, to determine the sulfur content of the steel slag, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the dryer/mixer burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, or other procedures approved by IDEM, OAQ.

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

#### D.1.11 Hydrogen Chloride (HCl) Emissions and Ash, Chlorine, and Lead Content

The Permittee shall demonstrate compliance with the waste oil ash, chlorine, and lead content limits established in Condition D.1.3(a)(3), by providing a vendor analysis of each fuel delivery accompanied by a vendor certification.

#### D.1.12 Multiple Fuel and Slag Usage

In order to assure compliance with the Condition D.1.3(c) when combusting any single fuel or more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, in conjunction with the use of slag in the aggregate mix, the Permittee shall limit fuel usage according to the following formula:

(a) Sulfur Dioxide (SO<sub>2</sub>) Emission Calculation

$$S = \frac{G(E_G) + O(E_O) + W(E_W) + B(E_B) + T(E_T)}{2,000 \text{ lbs/ton}}$$

*where:*

S = tons of sulfur dioxide emissions for a 12-month consecutive period

G = million cubic feet of natural gas used in the last 12 months

O = gallons of No. 2 fuel oil used in the last 12 months

W = gallons of waste oil used in the last 12 months

B = tons of blast furnace slag used in the last 12 months

T = tons of steel slag used in the last 12 months

E<sub>G</sub> = 0.60 lb/million cubic feet of natural gas

E<sub>O</sub> = 71.0 lb/1000 gallons of No. 2 fuel oil

E<sub>W</sub> = 110.3 lb/1000 gallons of waste oil

E<sub>B</sub> = 0.74 lb/ton of blast furnace slag used

E<sub>T</sub> = 0.0014 lb/ton of steel slag used

(b) Nitrogen Oxides (NO<sub>x</sub>) Emission Calculation

$$N = \frac{G(E_G) + O(E_O) + W(E_W)}{2,000 \text{ lbs/ton}}$$

*where:*

N = tons of nitrogen oxide emissions for a 12-month consecutive period;

G = million cubic feet of natural gas used in the last 12 months;

O = gallons of No. 2 fuel oil used in the last 12 months;

W = gallons of waste oil used in the last 12 months.

E<sub>G</sub> = 190 lb/million cubic feet of natural gas;

E<sub>O</sub> = 24.0 lb/1000 gallons of No. 2 fuel oil;

E<sub>W</sub> = 19.0 lb/1000 gallons of waste oil.

#### D.1.13 Shingle Asbestos Content

Compliance with Condition D.1.3(d) shall be determined utilizing one of the following options:

- (a) Providing shingle supplier certification that the factory second shingles do not contain asbestos; or

- (b) Obtaining from the post-consumer waste shingle supplier a signed certification that the post-consumer waste shingles were generated at single family homes and/or residential buildings containing four or fewer dwelling units; and/or
- (c) Analyzing a sample of the recycled asphalt shingles (factory seconds and/or post-consumer waste, only) delivery to determine the asbestos content of the recycled asphalt shingles, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A determination of noncompliance pursuant to any of the methods specified above shall not be refuted by evidence of compliance pursuant to the other method.

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

#### **D.1.14 Visible Emissions Notations**

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- (a) Visible emission notations from the dryer/mixer stack (DS-1) 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. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An abnormal visible emission notation is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

#### **D.1.15 Broken or Failed Bag Detection**

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In the event that bag failure has been observed:

- (a) For a single compartment baghouses 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, dust traces, or triboflows.

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

### D.1.16 Record Keeping Requirements

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- (a) To document the compliance status with Conditions D.1.1(a), and D.1.2(a), the Permittee shall keep monthly records of the amount of asphalt processed through the dryer/mixer.
  
- (b) To document the compliance status with Conditions D.1.3, D.1.6, D.1.10, D.1.11, D.1.12, and D.1.13, the Permittee shall maintain records in accordance with (1) through (11) below. Records maintained for (1) through (11) below shall be taken monthly and shall be complete and sufficient to establish compliance with the limits established in Conditions D.1.3, D.1.6, D.1.10, D.1.11, D.1.12, and D.1.13.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel usage, sulfur content, heat content, and equivalent sulfur dioxide and nitrogen oxides emission rates for each fuel used at the source since the last compliance determination period;
  - (3) Actual waste oil usage, ash, chlorine, and lead content for waste oil used at the source since the last compliance determination period;
  - (4) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and
  - (5) If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:
    - (i) Fuel supplier certifications;
    - (ii) The name of the fuel supplier; and
    - (iii) A statement from the fuel supplier that certifies the sulfur content of the No. 2 and waste oil, and the ash, chlorine, and lead content of waste oil.
  - (6) Actual blast furnace and steel slag usage, sulfur content, and equivalent sulfur dioxide emission rates for all blast furnace and steel slag used at the source since the last compliance determination period;
  - (7) A certification, signed by the owner or operator, that the records of the blast furnace and steel slag supplier certifications represent all of the blast furnace and steel slag used during the period; and
  - (8) If the slag supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:
    - (i) Blast furnace and steel slag supplier certifications;
    - (ii) The name of the blast furnace and steel slag supplier; and
    - (iii) A statement from the blast furnace and steel slag supplier that certifies the sulfur content of the blast furnace and steel slag.
  - (9) If the factory second shingle supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (A) Factory second shingle supplier certifications;
  - (B) The name of the factory second shingle supplier(s); and
  - (C) A statement from the factory second shingle supplier(s) that certifies the shingles from their company do not contain asbestos.
- (10) If the post-consumer waste shingle supplier certification is used to demonstrate compliance, the following as a minimum, shall be maintained:
- (A) Post-consumer waste shingle supplier certifications;
  - (B) The name of the post-consumer waste shingle supplier(s); and
  - (C) A statement from the post-consumer shingle supplier(s) that certifies the shingles were generated at single family homes and/or residential buildings containing four or fewer dwelling units.
- (11) If the factory second shingles and/or post-consumer waste shingles are analyzed to determine the asbestos content, the following, as a minimum, shall be maintained:
- (A) The name of the shingle supplier(s);
  - (B) The name of the certified lab or certified personnel that performed the shingle asbestos content analysis; and
  - (C) The shingle asbestos content analysis results.
- (c) To document the compliance status with Condition D.1.14, the Permittee shall maintain records once per day of the visible emission notations. 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 process did not operate that day).
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

#### D.1.17 Reporting Requirements

Quarterly summaries of the information to document compliance status with Conditions D.1.1(a), D.1.2(a), D.1.3(b) and D.1.3(c), shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

(k) Cold-mix (stockpile mix) asphalt manufacturing operations and storage piles.

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

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

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

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

- (a) Penetrating prime coating
- (b) Stockpile storage
- (c) Application during the months of November, December, January, February, and March.

#### D.2.2 Volatile Organic Compounds (VOC) [326 IAC 2-8-4][326 IAC 2-2][326 IAC 2-4.1]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (PSD), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable, the VOC emissions from the cold-mix (cutback) asphalt production shall be limited as follows:

- (a) VOC emissions from the sum of the liquid binders (asphalt emulsions) shall not exceed 46.83 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (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% of the liquid binder by weight of VOC solvent and 95.0% by weight of VOC solvent evaporating.
  - (2) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70.0% by weight of VOC solvent evaporating.
  - (3) Cut back asphalt slow cure, containing a maximum of 20.0% of the liquid binder by weight of VOC solvent and 25.0% by weight of VOC solvent evaporating.
  - (4) Emulsified asphalt with solvent, containing a maximum of 15.0% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be seven percent (7%) or less of the total emulsion by volume.
  - (5) Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating.
- (c) When using only one type of liquid binder (asphalt emulsion) per twelve (12) consecutive month period, the usage of liquid binder shall be limited as follows:

- (1) The amount of VOC solvent used in rapid cure cutback asphalt shall not exceed 49.29 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 not exceed 66.90 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 not exceed 187.32 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 not exceed 100.93 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 not exceed 1,873.20 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (d) When using more than one liquid binder (asphalt emulsion) per twelve (12) consecutive month period, VOC emissions shall be limited as follows:
- (1) The VOC solvent allotments in (1) through (5) above shall be adjusted when more than one type of binder is used 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 each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment factor listed in the table that follows.

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

Type of binder	adjustment factor
cutback asphalt rapid cure	1.053
cutback asphalt medium cure	1.429
cutback asphalt slow cure	4.000
emulsified asphalt	2.155
other asphalt	40.0

Compliance with these limits, combined with the potential to emit VOCs and HAPs from all other emission units at this source, will limit source-wide VOC emissions to less than one hundred (100) tons per twelve (12) consecutive month period, any single HAP to less than ten (10) tons per twelve (12) consecutive month period, and total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period, and render 326 IAC 2-7 (Part 70 Permit Program), 326 IAC 2-2 (PSD)), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable, and shall render the source minor under Section 112 of the Clean Air Act.

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

### **D.2.3 Record Keeping Requirements**

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- (a) To document the compliance status with Condition D.2.2(c)(1) through (5), the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.2.2(c)(1) through (5).
- (1) Calendar dates covered in the compliance determination period;
  - (2) Actual asphalt binder usage in the production of cold mix asphalt since the last compliance determination period;
  - (3) Actual VOC solvent content by weight of the asphalt binder used in the production of cold mix asphalt since the last compliance determination period; and
  - (4) Actual amount of VOC solvent used in the production of cold mix asphalt, and the amount of VOC emitted since the last compliance determination period.

Records may include: delivery tickets, manufacturer's data, material safety data sheets (MSDS), and other documents necessary to verify the type and amount used. Test results of ASTM tests for asphalt cutback and asphalt emulsion may be used to document volatilization.

- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

### **D.2.4 Reporting Requirements**

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A quarterly summary of the information to document the compliance status with Condition D.2.2 shall be submitted using the reporting form located at the end of this permit, or its equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**SECTION E.1**

**NSPS**

**Emissions Unit Description:**

- (a) one (1) aggregate drum mix asphalt plant, identified as emission unit No. 2, constructed in 1996, approved for modification in 2012, with a maximum throughput capacity of 600 tons of raw material per hour, processing blast furnace slag, steel slag, and recycled asphalt shingles (certified asbestos-free, factory seconds and/or post-consumer waste, only), in the aggregate mix, equipped with one (1) natural gas fired aggregate dryer burner with a maximum rated capacity of 200 million British thermal units per hour (MMBtu/hr) using No. 2 distillate fuel oil and re-refined waste oil as back-up fuels and one (1) knock out box and one (1) baghouse for air pollution control, exhausting at one (1) stack, identified as DS-1;
- (b) one (1) cold feed system consisting of nine (9) compartments with a total aggregate holding capacity of 450 tons;
- (c) Reclaimed Asphalt Pavement (RAP) bins with a capacity of 120 tons;
- (d) one (1) drag slat conveyor, four (4) feed conveyors, and one (1) screen;
- (e) Raw material storage piles consisting of the following:
  - (1) aggregate storage piles with a total maximum storage capacity of 32,159 tons;
  - (2) one (1) RAP storage pile with a total maximum storage capacity of 8,640 tons;
  - (3) Blast furnace and/or electric arc steel slag storage piles, with a maximum anticipated pile size of 0.40 acres.
  - (4) Recycled asphalt shingles (certified asbestos-free, factory seconds and/or post-consumer waste, only) storage piles, with a maximum anticipated pile size of 0.40 acres.
- (f) three (3) storage silos each with a maximum storage capacity of 300 tons;
- (g) four (4) storage silos each with a maximum storage capacity of 200 tons;
- (h) one (1) dust storage silo with a maximum capacity of 650 barrels;
- (i) one (1) dust pod;

Under 40 CFR 60, Subpart I, New Source Performance Standards for Hot-mix Asphalt Plants, this source is considered an affected 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 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR 60, Subpart I.
- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports

to:

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

**E.1.2 New Source Performance Standards (NSPS) for Hot-mix Asphalt Facilities [40 CFR Part 60, Subpart I][326 IAC 12]**

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The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart I (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission unit(s) listed above:

- (a) 40 CFR 60.90
- (b) 40 CFR 60.91
- (c) 40 CFR 60.92
- (d) 40 CFR 60.93

**Compliance Determination Requirements [326 IAC 2-8-4(1)]**

**E.1.3 Testing Requirements [326 IAC 2-1.1-11][326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

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In order to demonstrate compliance with Condition E.1.2, the Permittee shall perform the testing required under 40 CFR 60, Subpart I, utilizing methods as approved by the Commissioner, at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

**SECTION E.2**

**NSPS**

**Emissions Unit Description:**

- (j) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2012, with a maximum throughput capacity of 200 tons of RAP per hour; and

Under 40 CFR 60, Subpart OOO, New Source Performance Standards for Nonmetallic Mineral Processing Plants, this is considered an affected facility.

Under 40 CFR 60, 1068.30(2)(iii), General Compliance Provisions for Highway, Stationary, and Nonroad Programs, this unit this is considered a nonroad engine.

(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 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR 60, Subpart OOO.

- (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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

**E.2.2 Standards of Performance for Nonmetallic Mineral Processing Plants NSPS [40 CFR Part 60, Subpart OOO][326 IAC 12]**

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart OOO (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission unit(s) listed above:

- (1) 40 CFR 60.670(a), (d), (e), and (f)
- (2) 40 CFR 60.671
- (3) 40 CFR 60.672(b), (d), and (e)
- (4) 40 CFR 60.673
- (5) 40 CFR 60.674(b)
- (6) 40 CFR 60.675(a), (c)(1)(i), (ii), (iii), (c)(3), (d), (e), (g), and (i)
- (7) 40 CFR 60.676(a), (b)(1), (f), (h), (i), (j), and (k)
- (8) Table 1 and Table 3

**E.2.3 Testing Requirements [40 CFR Part 60, Subpart OOO][326 IAC 12-1][326 IAC 2-8-5(a)(1),(4) [326 IAC 2-1.1-11]**

In order to demonstrate compliance with Condition E.2.2, the Permittee shall perform testing for fugitive emissions from affected facilities without water sprays, as required under NSPS 40 CFR 60, Subpart OOO, not later than five (5) years from the most recent valid

compliance demonstration, utilizing methods approved by the Commissioner. Testing shall only be performed if the company has not previously performed testing for the same crusher at one of their other Indiana facilities. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

**Note:** Pursuant to §60.674(b)(1), affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in §60.674(b) and §60.676(b) are exempt from this 5-year repeat testing requirement.

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

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

Source Name: Milestone Contractors, L.P.  
Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240  
FESOP Permit No.: F057-36556-03289

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

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify) \_\_\_\_\_
- Report (specify) \_\_\_\_\_
- Notification (specify) \_\_\_\_\_
- Affidavit (specify) \_\_\_\_\_
- Other (specify) \_\_\_\_\_

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

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: (317) 233-0178  
Fax: (317) 233-6865**

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

Source Name: Milestone Contractors, L.P.  
Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240  
FESOP Permit No.: F057-36556-03289

**This form consists of 2 pages**

**Page 1 of 2**

- |  |
|--|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none"><li>• The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and</li><li>• 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 2-8-12</li></ul> |
|--|

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 <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Quarterly Report**

Source Name: Milestone Contractors, L.P.  
Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240  
FESOP Permit No.: F057-36556-03289  
Facility: Dryer/Mixer  
Parameter: **Hot-mix Asphalt Production**  
Limit: The amount of hot-mix asphalt produced in the dryer/burner shall not exceed 1,417,701 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Hot-mix Asphalt Produced This Month (tons)	Hot-mix Asphalt Produced Previous 11 Months (tons)	12 Month Total Hot-mix Asphalt Produced (tons)

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

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

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

**FESOP Quarterly Report**

Source Name: Milestone Contractors, L.P.  
 Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240  
 FESOP Permit No.: F057-36556-03289

Facility: Dryer/Mixer Burner

Parameter: **Fuel & Slag Usage / SO<sub>2</sub> and NO<sub>x</sub> emissions**

Emission Limits: Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 90.11 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.12(a).

Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 93.62 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.12(b).

Fuel & Slag Limits: When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer, in conjunction with the use of slag in the aggregate mix, fuel and slag usage shall not exceed the following:

<b>Fuel Type (Units)</b>	<b>Fuel Usage Limit (per 12 consecutive month period)</b>
Natural Gas (million cubic feet) (dryer)	986
No. 2 Distillate Fuel Oil (gallons) (dryer)	2,017,272
Waste Oil (gallons) (dryer)	1,299,105
Blast Furnace Slag (tons) (dryer)	50,000

Facility: Cold-mix Asphalt Production

Parameter: **Binder Usage / VOC Emissions**

Emission Limits: Volatile Organic Compound (VOC) emissions from the sum of the binders shall not exceed 46.83 tons per twelve (12) consecutive month period with compliance determined at the end of each month, using the equation found in Condition D.2.2(d).

Binder Limits: When using only one type of liquid binder (asphalt emulsion) per twelve (12) consecutive month period in the production of cold-mix asphalt, liquid binder (asphalt emulsion) usage shall not exceed the following:

<b>Type of Binder</b>	<b>Binder Usage Limit (tons per 12 consecutive month period)</b>
Cutback Asphalt Rapid Cure	49.29
Cutback Asphalt Medium Cure	66.90
Cutback Asphalt Slow Cure	187.32
Emulsified Asphalt	100.93
Other Asphalt	1,873.20

FESOP Quarterly Report - Fuel & Slag Usage / SO2 and NOx emissions

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Fuel Types / Slag (units)	Column 1	Column 2	Column 1 + Column 2	Equation Results	
		Usage This Month	Usage Previous 11 Months	Usage 12 Month Total	Sulfur Dioxide (SO2) Emissions (tons per 12 months)	Nitrogen Oxides (NOx) Emissions (tons per 12 months)
	Natural Gas (million cubic feet)					
	No. 2 Fuel Oil (gallons)					
	Waste Fuel Oil (gallons)					
	Blast Furnace Slag (tons)					
	Steel Slag Usage (tons)					
	Natural Gas (million cubic feet)					
	No. 2 Fuel Oil (gallons)					
	Waste Fuel Oil (gallons)					
	Blast Furnace Slag (tons)					
	Steel Slag Usage (tons)					
	Natural Gas (million cubic feet)					
	No. 2 Fuel Oil (gallons)					
	Waste Fuel Oil (gallons)					
	Blast Furnace Slag (tons)					
	Steel Slag Usage (tons)					

- No deviation occurred in this reporting period. Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Deviation/s occurred in this reporting period. Title / Position: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Deviation has been reported on: \_\_\_\_\_ Signature: \_\_\_\_\_

**FESOP Quarterly Report - Liquid Binder (Asphalt Emulsion) Usage / VOC Emissions**

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Binder/Emulsion Types (tons)	Column 1	Column 2	Column 1 + Column 2	Equation Results
		Solvent Usage This Month (tons)	Solvent Usage Previous 11 Months (tons)	Solvent Usage 12 Month Total (tons)	VOC Emissions (tons per 12 months)
	Cutback asphalt rapid cure liquid binder				
	Cutback asphalt medium cure liquid binder				
	Cutback asphalt slow cure liquid binder				
	Emulsified asphalt with solvent liquid binder				
	Other asphalt with solvent liquid binder				
	Cutback asphalt rapid cure liquid binder				
	Cutback asphalt medium cure liquid binder				
	Cutback asphalt slow cure liquid binder				
	Emulsified asphalt with solvent liquid binder				
	Other asphalt with solvent liquid binder				
	Cutback asphalt rapid cure liquid binder				
	Cutback asphalt medium cure liquid binder				
	Cutback asphalt slow cure liquid binder				
	Emulsified asphalt with solvent liquid binder				
	Other asphalt with solvent liquid binder				

- No deviation occurred in this reporting period.
- Deviation/s occurred in this reporting period.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Signature: \_\_\_\_\_

**VOC Emitted (tons/yr) =  $\frac{\text{VOC solvent used for each binder (tons/yr)}}{\text{Adjustment factor}}$**

Type of Binder	Adjustment Factor
Cutback Asphalt Rapid Cure	1.053
Cutback Asphalt Medium Cure	1.429
Cutback Asphalt Slow Cure	4.0
Emulsified Asphalt	2.155
Other Asphalt	40.0

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Milestone Contractors, L.P.  
Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240  
FESOP Permit No.: F057-36556-03289

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

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

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

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

## Attachment A

Federally Enforceable State Operating Permit (FESOP) Renewal No.: F057-36556-03289

### FUGITIVE PARTICULATE MATTER EMISSIONS CONTROL PLAN

**Milestone Contractors, L.P.  
5160 East 96th Street,  
Indianapolis, Indiana 46240**

1. Fugitive particulate matter emissions from paved roads, unpaved roads, and parking lots shall be controlled by one or more of the following methods:
  - (a) Paved roads and parking lots:
    - (1) power brooming while wet either from rain or application of water on an as needed basis.
  - (b) Unpaved roads and parking lots:
    - (1) paving with asphalt;
    - (2) treating with emulsified asphalt on an as needed basis;
    - (3) treating with water on an as needed basis;
    - (4) double chip and seal the road surface and maintained on an as needed basis.
2. Fugitive particulate matter emissions from aggregate stockpiles shall be controlled by one or more of the following methods on an as needed basis:
  - (a) maintaining minimum size and number of stock piles of aggregate;
  - (b) treating around the stockpile area with emulsified asphalt;
  - (c) treating around the stockpile area with water;
  - (d) treating the stockpiles with water.
3. Fugitive particulate matter emissions from outdoor conveying of aggregates shall be controlled by the following method on an as needed basis:
  - (a) applying water at the feed and the intermediate points.
4. Fugitive particulate matter emissions from the transfer of aggregates shall be controlled by one of the following methods:
  - (a) minimize the vehicular distance between transfer points;
  - (b) enclose the transfer points;
  - (c) apply water on transfer points on an as needed basis.
5. Fugitive particulate matter emissions from transportation of aggregate by truck, front end loader, etc. shall be controlled by one of the following methods:
  - (a) tarping the aggregate hauling vehicles;
  - (b) maintain vehicle bodies in a condition to prevent leakage;

- (c) spray the aggregates with water;
  - (d) maintain a 10 MPH speed limit in the yard.
6. Fugitive particulate matter emissions from the loading and unloading of aggregate shall be controlled by one of the following methods:
- (a) reduce free fall distance to a minimum;
  - (b) reduce the rate of discharge of the aggregate;
  - (c) spray the aggregate with water on an as needed basis.
7. Fugitive particulate matter (dust) emissions from material handling operations such as crushing, grinding, screening, and mixing shall be controlled by one or more the following measures:
- (1) wet suppression.
  - (2) enclosure of emission source with venting of emissions to a fabric filter.
- A copy of the (manufacturers) specification for the particulate matter collection system equipment (i.e. fabric filter, wet suppression system) used as a fugitive particulate matter emission control measure shall be appended to the Fugitive Dust Control Plan.
8. Plan Implementation
- (a) The effective date of this plan was June 17, 1996.
  - (b) Date of most recent update: April 19, 2011.

*DEFINITIONS:*

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

*REFERENCE:*

The Indiana Administrative Code, Title 326 Air Pollution Control Board, Article 6. Particulate Rules, weblink: <http://www.in.gov/legislative/iac/T03260/A00060.PDF?> . See page 12 for Rule 5. Fugitive Particulate Matter Emission Limitations.

## Attachment B

### Federally Enforceable State Operating Permit (FESOP) Renewal No: F057-36556-03289

[Downloaded from the eCFR on May 13, 2013]

#### Electronic Code of Federal Regulations

#### Title 40: Protection of Environment

#### PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

#### Subpart I—Standards of Performance for Hot Mix Asphalt Facilities

##### § 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]

## Attachment C

### Federally Enforceable State Operating Permit (FESOP) Renewal No: F057-36556-03289

[Downloaded from the eCFR on May 13, 2013]

#### Electronic Code of Federal Regulations

#### Title 40: Protection of Environment

#### PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

#### Subpart 000—Standards of Performance for Nonmetallic Mineral Processing Plants

Source: 74 FR 19309, Apr. 28, 2009, unless otherwise noted.

#### § 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; plants without crushers or grinding mills above ground; and wet material processing operations (as defined in § 60.671).

(b) An affected facility that is subject to the provisions of subparts F or I of this part 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, and there is no increase in the amount of emissions, 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, modification, or reconstruction 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 do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.

**§ 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 affected facilities 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 affected facilities 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.

*Crush* or *Crushing* means to reduce the size of nonmetallic mineral material by means of physical impaction of the crusher or grinding mill upon the material.

*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:

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

(2) Sand and Gravel.

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

(4) Rock Salt.

(5) Gypsum (natural or synthetic).

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

(7) Pumice.

(8) Gilsonite.

(9) Talc and Pyrophyllite.

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

(11) Barite.

(12) Fluorospar.

(13) Feldspar.

(14) Diatomite.

(15) Perlite.

(16) Vermiculite.

(17) Mica.

(18) 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.

*Saturated material* means, for purposes of this subpart, mineral material with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be "saturated" for purposes of this definition.

*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). Grizzly feeders associated with truck dumping and static (non-moving) grizzlies used anywhere in the nonmetallic mineral processing plant are not considered to be screening operations.

*Seasonal shut down* means shut down of an affected facility for a period of at least 45 consecutive days due to weather or seasonal market conditions.

*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) of 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 material processing operation(s)* means any of the following:

- (1) Wet screening operations (as defined in this section) and subsequent screening operations, bucket elevators and belt conveyors in the production line that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line; or
- (2) Screening operations, bucket elevators and belt conveyors in the production line downstream of wet mining operations (as defined in this section) that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line.

*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.

**§ 60.672 Standard for particulate matter (PM).**

- (a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days 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 § 60.8. The requirements in Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

(b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days 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. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

(c) [Reserved]

(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) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) Fugitive emissions from the building openings (except for vents as defined in § 60.671) must not exceed 7 percent opacity; and

(2) Vents (as defined in § 60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.

(f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

#### **§ 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.**

(a) 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:

(1) 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  $\pm 250$  pascals  $\pm 1$  inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(2) 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  $\pm 5$  percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under § 60.676(b).

(1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of this section:

(i) The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and § 60.676(b), and

(ii) The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under § 60.11 of this part and § 60.675 of this subpart.

(2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under § 60.676(b) must specify the control mechanism being used instead of the water sprays.

(c) Except as specified in paragraph (d) or (e) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, Appendix A-7). The Method 22 (40 CFR part 60, Appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 CFR part 60, Appendix A-7) test, including the date and any corrective actions taken, in the logbook required under § 60.676(b). The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to § 60.675(b) simultaneously with a Method 22 (40 CFR part 60, Appendix A-7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.

(d) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions may use a bag leak detection system. The owner or operator must install, operate, and maintain the bag leak detection system according to paragraphs (d)(1) through (3) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (d)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means ( e.g. , using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (d)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (d)(1)(vi) of this section.

(vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (d)(2) of this section.

(vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) The owner or operator of the affected facility must develop and submit to the Administrator or delegated authority for approval of a site-specific monitoring plan for each bag leak detection system. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (d)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (d)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (d)(2)(vi) of this section, the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

(ii) Sealing off defective bags or filter media;

(iii) Replacing defective bags or filter media or otherwise repairing the control device;

(iv) Sealing off a defective fabric filter compartment;

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or

(vi) Shutting down the process producing the PM emissions.

(e) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility that is subject to the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) may follow the continuous compliance requirements in row 1 items (i) through (iii) of Table 6 to Subpart AAAAA of 40 CFR part 63.

**§ 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 appendices A-1 through A-7 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 PM standards in § 60.672(a) as follows:

(1) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of Appendix A-3 of this part or Method 17 of Appendix A-6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR part 60, Appendix A-3), 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 of Appendix A-4 of this part 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) or § 60.672(e)(1), the owner or operator shall use Method 9 of Appendix A-4 of this part 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 of Appendix A-4 of this part, 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)(i) 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 (40 CFR part 60, Appendix A-4), the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations shall be 1 hour (ten 6-minute averages).

(ii) The duration of the Method 9 (40 CFR part 60, Appendix A-4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

(3) When determining compliance with the fugitive emissions standard for any affected facility described under § 60.672(b) or § 60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

(d) To demonstrate compliance with the fugitive emission limits for buildings specified in § 60.672(e)(1), the owner or operator must complete the testing specified in paragraph (d)(1) and (2) of this section. Performance tests must be conducted while all affected facilities inside the building are operating.

(1) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 CFR part 60, Appendix A-4) performance test according to this section and § 60.11.

(2) If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 CFR part 60, Appendix A-7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with

the opacity limit in § 60.672(e)(1). If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 CFR part 60, Appendix A-4) performance test according to this section and § 60.11 to show compliance with the opacity limit in § 60.672(e)(1).

(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.

(2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

(i) No more than three emission points may be read concurrently.

(ii) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

(3) Method 5I of Appendix A-3 of this part may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of this section. Method 5I (40 CFR part 60, Appendix A-3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

(4) In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of Appendix A-1 of this part [ *i.e.*, velocity head <1.3 mm H<sub>2</sub>O (0.05 in. H<sub>2</sub>O)] and referred to in EPA Method 5 of Appendix A-3 of this part. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans ( *e.g.*, from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

$$v_e = \frac{Q_f}{A_e} \quad (\text{Eq. 1})$$

Where:

$V_e$  = average building vent velocity (feet per minute);

$Q_f$  = average fan flow rate (cubic feet per minute); and

$A_e$  = area of building vent and measurement location (square feet).

(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)(1) and (2) during each particulate matter run and shall determine the averages.

(g) For performance tests involving only Method 9 (40 CFR part 60 Appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in § 60.7(a)(6) and 60.8(d) to a 7-day advance notification.

(h) [Reserved]

(i) If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in § 60.671 of this subpart) of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

**§ 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)(1) Owners or operators of affected facilities (as defined in §§ 60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under § 60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.

(2) For each bag leak detection system installed and operated according to § 60.674(d), the owner or operator must keep the records specified in paragraphs (b)(2)(i) through (iii) of this section.

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.

(3) The owner or operator of each affected facility demonstrating compliance according to § 60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) must maintain records of visible emissions observations required by § 63.7132(a)(3) and (b) of 40 CFR part 63, subpart AAAAA.

(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 and liquid flow rate decrease by more than 30 percent from the average determined during the most recent performance test.

(e) The reports required under paragraph (d) of this section 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 (40 CFR part 60, Appendix A-4) to demonstrate compliance with § 60.672(b), (e) and (f).

(g) The owner or operator of any wet material processing operation that processes saturated and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in § 60.672(b) and the emission test requirements of § 60.11.

(h) The subpart A requirement under § 60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities 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.

(k) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to § 60.4(b).

**Table 1 to Subpart 000 of Part 60—Exceptions to Applicability of Subpart A to Subpart 000**

Subpart A reference	Applies to subpart 000	Explanation
60.4, Address	Yes	Except in § 60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§ 60.676(k)).
60.7, Notification and recordkeeping	Yes	Except in (a)(1) notification of the date construction or reconstruction commenced (§ 60.676(h)).
		Also, except in (a)(6) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§ 60.675(g)).
60.8, Performance tests	Yes	Except in (d) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§ 60.675(g)).
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§ 60.675(c)), Method 9 (40 CFR part 60, Appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive emissions.
60.18, General control device	No	Flares will not be used to comply with the emission limits.

**Table 2 to Subpart 000 of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems**

For * * *	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§ 60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	0.05 g/dscm (0.022 gr/dscf) <sup>a</sup>	7 percent for dry control devices <sup>b</sup>	An initial performance test according to § 60.8 of this part and § 60.675 of this subpart; and Monitoring of wet scrubber parameters according to § 60.674(a) and § 60.676(c), (d), and (e).
Affected facilities (as defined in §§ 60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	0.032 g/dscm (0.014 gr/dscf) <sup>a</sup>	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins	An initial performance test according to § 60.8 of this part and § 60.675 of this subpart; and Monitoring of wet scrubber parameters according to § 60.674(a) and § 60.676(c), (d), and (e); and
			Monitoring of baghouses according to § 60.674(c), (d), or (e) and § 60.676(b).

<sup>a</sup> Exceptions to the PM limit apply for individual enclosed storage bins and other equipment. See § 60.672(d) through (f).

<sup>b</sup> The stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.

**Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits**

For * * *	The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§ 60.670 and 60.671) * * *	The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§ 60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	10 percent opacity	15 percent opacity	An initial performance test according to § 60.11 of this part and § 60.675 of this subpart.
Affected facilities (as defined in §§ 60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	12 percent opacity	An initial performance test according to § 60.11 of this part and § 60.675 of this subpart; and Periodic inspections of water sprays according to § 60.674(b) and § 60.676(b); and
			A repeat performance test according to § 60.11 of this part and § 60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in § 60.674(b) and § 60.676(b) are exempt from this 5-year repeat testing requirement.

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

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

**Source Background and Description**

<b>Source Name:</b>	<b>Milestone Contractors, L.P.</b>
<b>Source Location:</b>	<b>5160 East 96th Street, Indianapolis, Indiana 46240</b>
<b>County:</b>	<b>Hamilton</b>
<b>SIC Code:</b>	<b>2951 (Asphalt Paving Mixtures and Blocks)</b>
<b>Permit Renewal No.:</b>	<b>F057-36556-03289</b>
<b>Permit Reviewer:</b>	<b>Tamara Havics</b>

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Milestone Contractors, L.P. relating to the operation of an existing stationary hot drum mix asphalt plant. On December 2, 2015, Milestone Contractors, L.P. submitted an application to the OAQ requesting to renew its operating permit. Milestone Contractors, L.P. was issued its second FESOP Renewal F057-23089-03289 on September 18, 2006.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units:

- (a) one (1) aggregate drum mix asphalt plant, identified as emission unit No. 2, constructed in 1996, approved for modification in 2012, with a maximum throughput capacity of 600 tons of raw material per hour, processing blast furnace slag, steel slag, and recycled asphalt shingles (certified asbestos-free, factory seconds and/or post-consumer waste, only), in the aggregate mix, equipped with one (1) natural gas fired aggregate dryer burner with a maximum rated capacity of 200 million British thermal units per hour (MMBtu/hr) using No. 2 distillate fuel oil and re-refined waste oil as back-up fuels and one (1) knock out box and one (1) baghouse for air pollution control, exhausting at one (1) stack, identified as DS-1;
- (b) one (1) drag slat conveyor, four (4) feed conveyors, and one (1) screen;
- (c) Raw material storage piles consisting of the following:
  - (1) aggregate storage piles with a total maximum storage capacity of 32,159 tons;
  - (2) one (1) RAP storage pile with a total maximum storage capacity of 8,640 tons;
  - (3) Blast furnace and/or electric arc steel slag storage piles, with a maximum anticipated pile size of 0.40 acres.
  - (4) Recycled asphalt shingles (certified asbestos-free, factory seconds and/or post-consumer waste, only) storage piles, with a maximum anticipated pile size of 0.40 acres.
- (d) three (3) storage silos each with a maximum storage capacity of 300 tons;
- (e) four (4) storage silos each with a maximum storage capacity of 200 tons;

- (f) one (1) dust storage silo with a maximum capacity of 650 barrels;
- (g) one (1) dust pod;

Under 40 CFR 60, Subpart I, New Source Performance Standards for Hot-mix Asphalt Plants, this source is considered an affected facility.

- (h) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2012, with a maximum throughput capacity of 200 tons of RAP per hour; and

Under 40 CFR 60, Subpart OOO, New Source Performance Standards for Nonmetallic Mineral Processing Plants, this is considered an affected facility.

Under 40 CFR 1068.30, General Compliance Provisions for Highway, Stationary, and Nonroad Programs - Definitions, this unit this is considered a nonroad engine.

- (i) cold-mix (stockpile mix) asphalt manufacturing operations and storage piles.

The following is a list of the proposed modified emission units and pollution control device(s):

- (a) one (1) cold feed system consisting of nine (9) compartments with a total aggregate holding capacity of 450 tons;
- (b) Reclaimed Asphalt Pavement (RAP) bins with a capacity of 120 tons;

Under 40 CFR 60, Subpart I, New Source Performance Standards for Hot-mix Asphalt Plants, this source is considered an affected facility.

<b>Insignificant Activities</b>
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This stationary source also includes the following insignificant activities:

- (a) one (1) natural gas fired hot oil heater rated at 2.2 MMBtu per hour, identified as emission unit No. 17, using No. 2 fuel oil as back-up fuel, and exhausting at one (1) stack, identified as DS-6;
- (b) three (3) liquid asphalt storage tanks, identified as Tanks 14, 15 and 16, each with a maximum storage capacity of 20,000 gallons, with emissions exhausted to Stacks DV-3, DV-5 and DV-6, respectively;
- (c) one (1) liquid asphalt storage tank, identified as Tank 22, with a maximum storage capacity of 30,000 gallons, exhausting at one (1) stack, identified as DV-7;
- (d) one (1) double-walled re-refined waste oil storage tank, identified as Tank F03, with a maximum storage capacity of 30,000 gallons; and
- (e) one (1) double-walled No. 2 fuel oil storage tank, identified as Tank F04, with a maximum storage capacity of 10,000 gallons;
- (f) one liquid asphalt calibration tank, identified as Tank 17.
- (g) a petroleum fuel, other than gasoline, dispensing facility, 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;

- (h) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (i) application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (j) cleaners and solvents having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100°F) or; having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20°C (68°); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months;
- (k) combustion source flame safety purging on startup;
- (l) closed loop heating and cooling systems;
- (m) a laboratory as defined in 326 IAC 2-7-1(21)(D); and
- (n) paved and unpaved roads and parking lots with public access;

The following is a list of the proposed insignificant units:

- (a) two (2) liquid asphalt storage tanks, identified as Tanks 18 and 19, each with a maximum storage capacity of 20,000 gallons, with emissions exhausted to Stacks DV-8 and DV-9, respectively;

<b>Existing Approvals</b>
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Since the issuance of the FESOP F057-23089-03289 on September 18, 2006, the source has constructed or has been operating under the following additional approvals:

- (a) Administrative Amendment No. 057-25974-03289 issued on February 19, 2008; and
- (b) Significant Permit Revision No. 057-31416-03289 issued on June 28, 2012; and
- (c) Administrative Amendment No. 057-36320-03289 issued on October 26, 2015.

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

<b>Enforcement Issue</b>
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There are no enforcement actions pending.

<b>Emission Calculations</b>
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See Appendix A of this document for detailed emission calculations.

<b>County Attainment Status</b>
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The source is located in Hamilton County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. <sup>1</sup>
PM <sub>2.5</sub>	Attainment effective July 11, 2013, for the annual PM <sub>2.5</sub> standard.
PM <sub>2.5</sub>	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM <sub>2.5</sub> standard.
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
<sup>1</sup> Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.	

- (a) **Ozone Standards**  
 Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Hamilton County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM<sub>2.5</sub>**  
 Hamilton County has been classified as attainment for PM<sub>2.5</sub>. Therefore, direct PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) **Other Criteria Pollutants**  
 Hamilton County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

**Fugitive Emissions**

This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, however, there is an applicable New Source Performance Standard that was in effect on August 7, 1980 (40 CFR 60, Subpart I), therefore fugitive emissions, from the affected facilities to which the New Source Performance Standard is applicable, are counted toward the determination of PSD and Part 70 Permit applicability.

**Unrestricted Potential Emissions**

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at [http://www.supremecourt.gov/opinions/13pdf/12-1146\\_4g18.pdf](http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf)) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of

a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(30)) of PM10, PM2.5, SO2, NOx, VOC, and CO is equal to or greater than 100 tons per year. However, the Permittee has agreed to limit the source's of PM10, PM2.5, SO2, NOx, VOC, and CO emissions to less than Title V levels, therefore the Permittee will be issued a FESOP Renewal.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(30)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(30)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. However, the Permittee has agreed to limit the source's single HAP emissions and total HAP emissions below Title V levels. Therefore, the Permittee will be issued a FESOP Renewal.

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

Process/ Emission Unit	Potential To Emit of the Entire Source after Issuance of the Renewal (tons/year)								
	PM	PM <sub>10</sub> ***	PM <sub>2.5</sub> ***	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP
<b>Ducted/Ductable Emissions</b>									
Dryer Fuel Combustion (worst case) <sup>(1)</sup>	42.40	33.79	33.79	90.11	93.62	2.71	41.39	10.06	8.57 (HCl)
Dryer/Mixer <sup>(2)</sup> (Process)	184.11	75.14	84.34			22.68	92.15	7.56	2.20 (formaldehyde)
Dryer/Mixer Slag Processing <sup>(3)</sup>	0	0	0			0	0	0	N/A
Hot Oil Heater Fuel Combustion (worst case)	0.14	0.23	0.23	4.89	1.38	0.05	0.81	0.02	0.017 (hexane)
Generator (< 600 hp) Fuel Combustion	0	0	0	0	0	0	0	0	N/A
Generator (> 600 hp) Fuel Combustion	0	0	0	0	0	0	0	0	N/A
Astec Crusher Fuel Combustion*	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Worst Case Emissions**</b>	<b>184.25</b>	<b>75.37</b>	<b>84.57</b>	<b>95.00</b>	<b>95.00</b>	<b>22.74</b>	<b>92.96</b>	<b>10.08</b>	<b>8.57 (HCl)</b>
<b>Fugitive Emissions</b>									
Asphalt Load-Out, Silo Filling, and On-Site Yard <sup>(3)</sup>	0.79	0.79	0.79	0	0	12.14	2.04	0.20	0.06 (formaldehyde)
Material Storage Piles	0.82	0.29	0.29	0	0	0	0	0	N/A
Material Processing and Handling <sup>(3)</sup>	4.58	2.17	0.33	0	0	0	0	0	N/A
Material Screening, and Conveying <sup>(3)</sup>	22.49	8.22	8.22	0	0	0	0	0	N/A
Unpaved and Paved Roads (worst case) <sup>(1)</sup>	32.07	8.17	0.82	0	0	0	0	0	N/A
Cold Mix Asphalt Production <sup>(4)</sup>	0	0	0	0	0	46.83	0	12.21	4.21 (xylenes)
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0	0	0	N/A
Volatile Organic Liquid Storage Vessels ****	0	0	0	0	0	negl.	0	negl.	negl.
<b>Total Fugitive Emissions</b>	<b>60.75</b>	<b>19.63</b>	<b>10.43</b>	<b>0</b>	<b>0</b>	<b>58.97</b>	<b>2.04</b>	<b>12.42</b>	<b>4.21 (xylenes)</b>
<b>Total Limited/Controlled Emissions</b>	<b>245.00</b>	<b>95.00</b>	<b>95.00</b>	<b>95.00</b>	<b>95.00</b>	<b>81.71</b>	<b>95.00</b>	<b>22.50</b>	<b>8.57 (HCl)</b>
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	N/A	N/A
negl = negligible      N/A = Not applicable      HCL = hydrogen chloride * The crusher has been determined a nonroad vehicle under 40 CFR 60, and 40 CFR 63, therefore, emissions are not counted toward PSD and TV applicability. ** Worst Case Emissions (tons/yr) = Worst Case Emissions from Dryer Fuel Combustion and Dryer/Mixer + Dryer/Mixer Slag Processing + Worst Case Emissions from Hot Oil Heater Fuel Combustion and Hot Oil Heating System + Diesel-Fired Generator < 600 HP + Diesel-Fired Generator > 600 HP *** Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". Additionally, US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. **** Fugitive emissions from each of the volatile organic liquid storage tanks were calculated using the EPA Tanks 4.0.9d program and were determined to be negligible. (1) Limited PTE based upon annual production and fuel usage limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP). (2) Limited PTE based upon annual production limit and lb/ton emission limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP). (3) Limited PTE based upon annual production limit to comply with 326 IAC 2-2 (PSD) & 326 IAC 2-8 (FESOP). (4) Limited PTE based upon maximum annual VOC usage limit to comply with 326 IAC 2-8 (FESOP).									

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at [http://www.supremecourt.gov/opinions/13pdf/12-1146\\_4g18.pdf](http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf)) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

(a) **FESOP Status**

This existing source is not a Title V major stationary source, because the potential to emit criteria pollutants from the entire source will be limited to less than the Title V major source threshold levels. In addition, this existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the potential to emit HAPs is less than ten (10) tons per year for a single HAP and twenty-five (25) tons per year of total HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act and is subject to the provisions of 326 IAC 2-8 (FESOP).

- (1) In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), PM10, PM2.5, VOC, and CO emissions from the dryer/mixer process shall be limited as follows:
  - (A) The amount of hot-mix asphalt processed shall not exceed 1,417,701 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
  - (B) The PM10 emissions from the dryer/mixer shall not exceed 0.106 pounds per ton of asphalt processed.
  - (C) The PM2.5 emissions from the dryer/mixer shall not exceed 0.119 pounds per ton of asphalt processed.
  - (D) The VOC emissions from the dryer/mixer shall not exceed 0.032 pounds per ton of asphalt processed.
  - (E) The CO emissions from the dryer/mixer shall not exceed 0.130 pounds per ton of asphalt processed.
  - (F) The Permittee shall control PM10 and PM2.5 emissions from the paved and unpaved roads according to the fugitive dust plan, included as Attachment A to the permit.

Compliance with these limits, combined with the potential to emit PM10, PM2.5, VOC, and CO from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5, VOC, and CO to less than 100 tons per twelve (12) consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

- (2) In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), SO<sub>2</sub>, NO<sub>x</sub>, and HAP emissions from the dryer/mixer fuel combustion, in conjunction with the use of slag in the aggregate mix, shall be limited as follows:

- (A) Fuel and Slag Specifications
- (i) The sulfur content of No. 2 fuel oil shall not exceed 0.50% by weight.
  - (ii) The sulfur content of the waste oil shall not exceed 0.75% by weight.
  - (iii) The waste oil combusted in the dryer burner shall not contain more than 1.02% ash, 0.2% chlorine, and 0.010% lead.
  - (iv) The HCl emissions shall not exceed 13.2 pounds of HCl per 1,000 gallons of waste oil burned.
  - (v) The sulfur content of the blast furnace slag shall not exceed 1.50% by weight.
  - (vi) The SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 0.740 pounds per ton of blast furnace slag processed in the aggregate mix.
  - (vii) The sulfur content of the steel slag shall not exceed 0.66% by weight.
  - (viii) The SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 0.0014 pounds per ton of steel slag processed in the aggregate mix.
- (B) Single Fuel and Slag Usage Limitations:  
When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer burner, the usage of fuel shall be limited as follows:
- (i) Natural gas usage in the dryer/mixer burner shall not exceed 986 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.
  - (ii) No. 2 fuel oil usage in the dryer/mixer burner shall not exceed 2,017,272 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
  - (iii) Waste oil usage in the dryer/mixer burner shall not exceed 1,299,105 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- Note: The source is only permitted to burn the above-mentioned fuels.
- (iv) The Blast Furnace slag usage shall not exceed 50,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- Note: A Steel slag usage limit is not required for the source to comply with their FESOP SO<sub>2</sub> Limit, since unlimited usage results in a PTE SO<sub>2</sub> of less than 2.0 tons/yr (see TSD Appendix A.1, page 6 of 17). To form a conservative estimate, SO<sub>2</sub> emissions are based on the "worst case" assumption that steel slag usage corresponds to 100% of the aggregate used to produce hot-mix asphalt (see TSD Appendix A.2, page 6 of 17).
- (C) Multiple Fuel and Slag Usage Limitation:  
When combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, in conjunction with the use of slag in the aggregate mix, emissions from the dryer/mixer shall be limited as follows:

- (i) SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 90.11 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

$$\text{SO}_2 = 71.61 + 18.50 = 90.11 \text{ tons/year}$$

The Permittee shall limit fuel usage in the dryer/mixer burner, and blast furnace slag in the aggregate mix, according to the following formula:

$$S = \frac{G(E_G) + O(E_O) + W(E_W) + B(E_B) + T(E_T)}{2,000 \text{ lbs/ton}}$$

where:

S = tons of sulfur dioxide emissions for a 12-month consecutive period

G = million cubic feet of natural gas used in the last 12 months

O = gallons of No. 2 fuel oil used in the last 12 months

W = gallons of waste oil used in the last 12 months

B = tons of blast furnace slag used in the last 12 months

T = tons of steel slag used in the last 12 months

E<sub>G</sub> = 0.60 lb/million cubic feet of natural gas

E<sub>O</sub> = 71.0 lb/1000 gallons of No. 2 fuel oil

E<sub>W</sub> = 110.3 lb/1000 gallons of waste oil

E<sub>B</sub> = 0.74 lb/ton of blast furnace slag used

E<sub>T</sub> = 0.0014 lb/ton of steel slag used

- (ii) NO<sub>x</sub> emissions from the dryer/mixer shall not exceed 93.62 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The Permittee shall limit fuel usage in the dryer/mixer burner according to the following formula:

$$N = \frac{G(E_G) + O(E_O) + W(E_W)}{2,000 \text{ lbs/ton}}$$

where:

N = tons of nitrogen oxide emissions for a 12-month consecutive period;

G = million cubic feet of natural gas used in the last 12 months;

O = gallons of No. 2 fuel oil used in the last 12 months;

W = gallons of waste oil used in the last 12 months.

E<sub>G</sub> = 190 lb/million cubic feet of natural gas;

E<sub>O</sub> = 24.0 lb/1000 gallons of No. 2 fuel oil;

E<sub>W</sub> = 19.0 lb/1000 gallons of waste oil.

- (D) Pursuant to 326 IAC 2-8-4 (FESOP), and in order to ensure the requirements of 40 CFR 61, Subpart M are not applicable, the Permittee shall not grind recycled asphalt shingles on-site and shall only use the following as an additive in its aggregate mix:

- (1) Certified asbestos-free factory second asphalt shingles;
- (2) Post-consumer waste shingles generated at single family homes and/or residential buildings containing four or fewer dwelling units; and/or
- (3) Factory second shingles and/or post-consumer waste shingles that have sampled negative for asbestos.

Compliance with these limits, combined with the potential to emit SO<sub>2</sub>, NO<sub>x</sub>, HCl, and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of SO<sub>2</sub> and NO<sub>x</sub> to less than 100 tons per twelve (12) consecutive month period, each, HCl to less than ten (10) tons per twelve (12) consecutive month period, any single HAP to less than ten (10) tons per twelve (12) consecutive month period, and total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) and 40 CFR 61, Subpart M not applicable.

- (4) In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the VOC emissions from cold-mix (cutback) asphalt production shall be limited as follows:
- (A) VOC emissions from the sum of the binders shall not exceed 46.83 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (B) Liquid binders used in the production of cold mix asphalt shall be defined as follows:
- (i) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95.0% by weight of VOC solvent evaporating.
  - (ii) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70.0% by weight of VOC solvent evaporating.
  - (iii) Cut back asphalt slow cure, containing a maximum of 20.0% of the liquid binder by weight of VOC solvent and 25.0% by weight of VOC solvent evaporating.
  - (iv) Emulsified asphalt with solvent, containing a maximum of 15.0% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be seven percent (7%) or less of the total emulsion by volume.
  - (v) Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating.
- (C) When using only one type of liquid binder per twelve (12) consecutive month period, the usage of liquid binder shall be limited as follows:
- (i) The amount of VOC solvent used in rapid cure cutback asphalt shall not exceed 49.29 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
  - (ii) The amount of VOC solvent used in medium cure cutback asphalt shall not exceed 66.90 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
  - (iii) The amount of VOC solvent used in slow cure cutback asphalt shall not exceed 187.32 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

- (iv) The amount of VOC solvent used in emulsified asphalt shall not exceed 100.93 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (v) The amount of VOC solvent used in all other asphalt shall not exceed 1,873.20 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (D) When using more than one liquid binder per twelve (12) consecutive month period, VOC emissions shall be limited as follows:
  - (i) The VOC solvent allotments in (C)(i) through (C)(v) above shall be adjusted when more than one type of binder is used 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 each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment factor listed in the table that follows.

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

Type of Binder	Adjustment Factor
Cutback Asphalt Rapid Cure	1.053
Cutback Asphalt Medium Cure	1.429
Cutback Asphalt Slow Cure	4.000
Emulsified Asphalt	2.155
Other Asphalt	40.0

Compliance with these limits, combined with the potential to emit VOCs and HAPs from all other emission units at this source, will limit source-wide VOC emissions to less than one hundred (100) tons per twelve (12) consecutive month period, any single HAP to less than ten (10) tons per twelve (12) consecutive month period, and total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period, and render 326 IAC 2-7 (Part 70 Permit Program), and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable.

(b) **PSD Minor Source**

This existing source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit PM is limited to less than two hundred fifty (250) tons per year, the potential to emit all other attainment regulated pollutants are less than two hundred fifty (250) tons per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the source shall comply with the following:

- (1) The amount of hot-mix asphalt processed shall not exceed 1,417,701 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) PM emissions from the dryer/mixer shall not exceed 0.260 pounds per ton of asphalt processed.

- (3) The Permittee shall control PM emissions from the paved and unpaved roads according to the fugitive dust plan, included as Attachment A to the permit.

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 250 tons per 12 consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

<b>Federal Rule Applicability</b>
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*New Source Performance Standards (NSPS)*

- (a) **40 CFR 60, Subpart Dc - Standards for Small Industrial-Commercial-Institutional Steam Generating Units**  
The requirements of New Source Performance Standards for (Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12) are not included in the permit for the one (1) 2.2 MMBtu/hr hot oil heater, since it has a maximum design heat input capacity of less than the applicability threshold of ten (10) million British thermal units per hour.
- (b) **40 CFR 60, Subpart I - Standards for Hot Mix Asphalt Facilities**  
This existing stationary drum hot-mix asphalt plant is subject to the New Source Performance Standard for Hot Mix Asphalt Facilities, 40 CFR 60.90, Subpart I (326 IAC 12), because it meets the definition of a hot mix asphalt facility pursuant to the rule and it was constructed after June 11, 1973.

The units subject to this rule include the following:

- (1) one (1) aggregate drum mix asphalt plant, identified as emission unit No. 2, constructed in 1996, with a maximum throughput capacity of 600 tons of raw material per hour, processing blast furnace slag, steel slag, and recycled asphalt shingles (certified asbestos-free, factory seconds and/or post-consumer waste, only), in the aggregate mix, equipped with one (1) natural gas fired aggregate dryer burner with a maximum rated capacity of 200 million British thermal units per hour (MMBtu/hr) using No. 2 distillate fuel oil and re-refined waste oil as back-up fuels and one (1) knock out box and one (1) baghouse for air pollution control, exhausting at one (1) stack, identified as DS-1;
- (2) one (1) cold feed system consisting of nine (9) compartments with a total aggregate holding capacity of 450 tons;
- (3) Reclaimed Asphalt Pavement (RAP) bins with a capacity of 120 tons;
- (4) one (1) drag slat conveyor, four (4) feed conveyors, and one (1) screen;
- (5) Raw material storage piles consisting of the following:
  - (A) aggregate storage piles with a total maximum storage capacity of 32,159 tons;
  - (B) one (1) RAP storage pile with a total maximum storage capacity of 8,640 tons;
  - (C) Blast furnace and/or electric arc steel slag storage piles, with a maximum anticipated pile size of 0.40 acres.

- (D) Recycled asphalt shingles (certified asbestos-free, factory seconds and/or post-consumer waste, only) storage piles, with a maximum anticipated pile size of 0.40 acres.
- (6) three (3) storage silos each with a maximum storage capacity of 300 tons;
- (7) four (4) storage silos each with a maximum storage capacity of 200 tons;
- (8) one (1) dust storage silo with a maximum capacity of 650 barrels;
- (9) one (1) dust pod;

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portion of Subpart I.

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

The requirements of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the source except as otherwise specified in 40 CFR 60, Subpart I.

(c) **40 CFR 60.110, Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids - After June 11, 1973, and Prior to May 19, 1978**

The one (1) 20,000 gallon liquid asphalt storage tank (Tank 14) is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110, Subpart K) because the tank has a storage capacity of less than 40,000 gallons. Therefore, the requirements of 40 CFR 60.110, Subpart K are not included in the permit.

(d) **40 CFR 60.110a, Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids - After May 18, 1978, and Prior to July 23, 1984**

The one (1) 20,000 gallon liquid asphalt storage tank (Tank 14) is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110a, Subpart Ka) because the tank was installed before May 18, 1978 and has a storage capacity of less than 40,000 gallons. Therefore, the requirements of 40 CFR 60.110a, Subpart Ka are not included in the permit.

(e) **40 CFR 60.110b, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels - After July 23, 1984**

- (1) The one (1) 20,000 gallon liquid asphalt storage tank (Tank 14) is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb) because the tank was installed before July 23, 1984. The one (1) 10,000 gallon double-walled No. 2 fuel oil storage tank (Tank F04) is not subject to the requirements of Subpart Kb because the tank has a storage capacity less than 75 cubic meters. Therefore, the requirements of 40 CFR 60.110b, Subpart Kb are not included in the permit.
- (2) The four (4) 20,000 gallon liquid asphalt storage tanks (Tanks 15, 16, 18, and 19) are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb). This subpart does not apply to storage vessels with a capacity greater than or equal to 75 cubic meters but less than 151 cubic meters storing a liquid with a maximum true vapor pressure less than 15.0 kPa. The 20,000 gallon liquid asphalt storage tanks (Tanks 15, 16, 18, and 19) each have a storage capacity greater than 75 cubic meters and less than 151 cubic meters, and stores a liquid with a maximum

true vapor pressure less than 15.0 kPa. Therefore, the requirements of 40 CFR 60.110b, subpart Kb are not included in the permit.

- (3) The one (1) 30,000 gallon liquid asphalt storage tank (Tank 22) and the one (1) 30,000 double-walled re-refined waste oil storage tank (Tank F03) are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb). This subpart does not apply to storage vessels with a capacity greater than or equal to 75 cubic meters but less than 151 cubic meters storing a liquid with a maximum true vapor pressure less than 15.0 kPa. The 30,000 gallon liquid asphalt storage tank (Tank 22) and the one (1) 30,000 double-walled re-refined waste oil storage tank (Tank F03) each have a storage capacity greater than 75 cubic meters and less than 151 cubic meters, and stores a liquid with a maximum true vapor pressure less than 15.0 kPa. Therefore, the requirements of 40 CFR 60.110b, subpart Kb are not included in the permit.

(f) **40 CFR 60, Subpart UU - Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture**

The requirements of New Source Performance Standard for Asphalt Processing and Asphalt Roofing Manufacture, 40 CFR 60, Subpart UU, which is incorporated by reference as 326 IAC 12, are not included in the permit for the one (1) proposed stationary drum hot-mix asphalt plant, identified as Unit ID 2, since it is not an asphalt processing plant, as defined in 40 CFR 60.471, which defines it as a plant which blows asphalt for use in the manufacture of asphalt products.

(g) **40 CFR 60, Subpart OOO - Standards for Nonmetallic Mineral Processing Plants**

This existing stationary drum hot-mix asphalt plant is subject to the New Source Performance Standard for Nonmetallic Mineral Processing Plants, 40 CFR 60, Subpart OOO (30) (326 IAC 12), whenever the diesel fuel-fired portable crusher and screener is being used to reduce the size of nonmetallic minerals embedded in the Recycled Asphalt Pavement (RAP).

The units subject to this rule include the following:

- (1) crushers;
- (2) grinding mills; and
- (3) subsequent affected facilities up to, but not including, the first storage silo or bin, such as:
  - (A) bucket elevators;
  - (B) belt conveyors;
  - (C) screening operations; and
  - (D) bagging operations;

Therefore, pursuant to 40 CFR 60.672(b) and (c), fugitive particulate matter emissions from any transfer point on belt conveyors or from any other of the above-listed facilities, except the crusher, shall not exceed seven percent (7%) opacity, and fugitive particulate matter emissions from the crusher shall not exceed twelve percent (12%) opacity.

The source will comply with this rule by applying the management techniques outlined in their Fugitive Dust Plan (included as Attachment A of the permit).

The crushing operation is therefore subject to the following requirements of 40 CFR 60, Subpart OOO (included as Attachment C of the permit):

- |     |                                     |     |  |
|-----|-------------------------------------|-----|--|
| (1) | 40 CFR 60.670(a), (d), (e), and (f) | (6) | 40 CFR 60.675(a), (c)(1)(i), (ii), (iii), (c)(3), (d), (e), (g), and (i) |
| (2) | 40 CFR 60.671                       |     |  |
| (3) | 40 CFR 60.672(b), (d), and (e)      | (7) | 40 CFR 60.676(a), (b)(1), (f), (h), (i), (j), and (k)                    |
| (4) | 40 CFR 60.673                       |     |  |
| (5) | 40 CFR 60.674(b)                    | (8) | Table 1 and Table 3  |

*Note: this NSPS includes testing requirements applicable to this source.*

The requirements of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the crushing operation except as otherwise specified in 40 CFR 60, Subpart OOO.

(h) **40 CFR 60, Subpart IIII - NSPS for Stationary Compression Ignition Internal Combustion Engines**

The requirements of the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII (4I) (326 IAC 12), are not included in the permit for the diesel fuel-fired portable crusher and screener (EU002), as follows:

Pursuant to 40 CFR 60.4219, *Stationary internal combustion engine (ICE)* means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary ICE is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include; reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Pursuant to 40 CFR 1068.30, *Nonroad engine* means:

- (1) Except as discussed in paragraph (2) of this definition, a nonroad engine is an internal combustion engine that meets any of the following criteria:
  - (i) It is (or will be) used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers).
  - (ii) It is (or will be) used in or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers).
  - (iii) By itself or in or on a piece of equipment, it is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.
- (2) An internal combustion engine is not a *nonroad engine* if it meets any of the following criteria:
  - (i) The engine is used to propel a motor vehicle, an aircraft, or equipment used solely for competition.
  - (ii) The engine is regulated under 40 CFR part 60, (or otherwise regulated by a federal New Source Performance Standard promulgated under section 111 of the Clean Air Act (42 U.S.C. 7411)).
  - (iii) The engine otherwise included in paragraph (1)(iii) of this definition remains or will remain at a location for more than 12 consecutive months or a shorter period

of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year. See §1068.31 for provisions that apply if the engine is removed from the location.

IDEM, OAQ has determined that based on information submitted by the source, the diesel fuel-fired portable crusher and screener (EU002) may be considered a nonroad engine for the purposes of 40 CFR 60, Subpart IIII applicability, provided it meets the requirements of paragraph (2)(iii) of the definition of nonroad engine in 40 CFR 1068.30. Therefore, the requirements of 40 CFR 60, Subpart IIII are not applicable to the diesel fuel-fired portable crusher and screener (EU002), provided it meets the following requirements:

- (1) The diesel fuel-fired portable RAP crusher and screener shall remain at a location for a period not to exceed twelve (12) consecutive months.
  - (2) Any diesel fuel-fired portable RAP crusher and screener that replaces a diesel fuel-fired portable RAP crusher and screener at a location and that is intended to perform the same or similar function as the diesel fuel-fired portable RAP crusher and screener replaced will be included in calculating the consecutive time period.
  - (3) For the purposes of this condition and pursuant to 40 CFR 1068.30 Nonroad Engine (2)(iii), a location is any single site at a building, structure, facility, or installation.
- (i) **40 CFR 60, Subpart JJJJ - NSPS for Stationary Spark Ignition Internal Combustion Engines**  
The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ (4J) (326 IAC 12), are not included in the permit, because the diesel fuel-fired portable crusher and screener is a compression ignition engine and meets the definition of a nonroad engine, as defined in 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is therefore not considered a stationary internal combustion engine as defined in 40 CFR 60.4248.
- (j) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR 60) included in the permit.

*National Emission Standards for Hazardous Air Pollutants (NESHAP)*

- (a) **40 CFR 63.6580, Subpart ZZZZ - NESHAP for Stationary Reciprocating Internal Combustion Engines**  
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63.6580, Subpart ZZZZ (4Z) (326 IAC 20-84), are not included in the permit for the diesel fuel-fired portable crusher and screener (EU002), as follows:

Pursuant to 40 CFR 63.6675, Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

See paragraph (h) above for the definition of nonroad engine. IDEM, OAQ has determined that based on information submitted by Milestone, the diesel fuel-fired portable crusher and screener (EU002) may be considered a nonroad engine for the purposes of 40 CFR 63, Subpart ZZZZ applicability, provided it meets the requirements of paragraph (2)(iii) of the definition of nonroad engine in 40 CFR 1068.30. Therefore, the requirements of 40 CFR 63, Subpart ZZZZ are not applicable to the diesel fuel-fired portable crusher and screener (EU002), provided it meets the following requirements:

- (1) The diesel fuel-fired portable RAP crusher and screener shall remain at a location for a period not to exceed twelve (12) consecutive months.
- (2) Any diesel fuel-fired portable RAP crusher and screener that replaces a diesel fuel-fired portable RAP crusher and screener at a location and that is intended to perform the same or similar function as the diesel fuel-fired portable RAP crusher and screener replaced will be included in calculating the consecutive time period.
- (3) For the purposes of this condition and pursuant to 40 CFR 1068.30 Nonroad Engine (2)(iii), a location is any single site at a building, structure, facility, or installation.

(b) **40 CFR 63, Subpart DDDDD - NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters**

The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD, which is incorporated by reference as 326 IAC 20, are not included in the permit for the hot oil heater, since this source is not a major source of HAPs.

(c) **40 CFR 63, Subpart LLLLL - NESHAPs for Asphalt Processing and Asphalt Roofing Manufacturing**

The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Asphalt Processing and Asphalt Roofing Manufacturing, 40 CFR 63, Subpart LLLLL, which is incorporated by reference as 326 IAC 20, are not included in the permit, since this source does not meet the definition of an asphalt processing plant or an asphalt roofing manufacturing facility as defined in 40 CFR 63.8698, and it does not engage in the preparation of asphalt flux or asphalt roofing materials. Additionally, this source is not a major source of HAPs.

(d) **40 CFR 63, Subpart CCCCC - NESHAP for the Source Category Identified as Gasoline Dispensing Facilities (GDF)**

The requirements of this National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Source Category Identified as Gasoline Dispensing Facilities (GDF), 40 CFR 63.11110, Subpart CCCCC (6C) (326 IAC 20), are not included in the permit, because this existing stationary drum mix asphalt pavement production plant does not operate a gasoline dispensing facilities as defined by this subpart.

(e) **40 CFR 63, Subpart JJJJJ - NESHAPs for Industrial, Commercial, and Institutional Boilers Area Sources**

- (1) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJ, are not included in the permit for the dryer/mixer burner or diesel fuel-fired portable crusher and screener, because although this existing source is an area source of hazardous air pollutants (HAP), as defined in §63.2, the dryer/mixer burner and diesel fuel-fired portable crusher and screener are each a direct-fired process units and not a boiler, as defined in 40 CFR 63.11237.
- (2) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJ, are not included in the permit for the hot oil heater, because

although this existing source is an area source of hazardous air pollutants (HAP), as defined in §63.2, and the hot oil heater fires No. 2 fuel oil as its back-up fuel, it does not meet the definition of a boiler, as defined in §63.11237, since heat transfer oil and not water is used as the indirect heating media.

(f) **40 CFR 63, Subpart AAAAAAA - NESHAP for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing**

The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing, 40 CFR 63, Subpart AAAAAAA (326 IAC 20), are not included in the permit, because although the stationary drum hot-mix asphalt plant is an area source of hazardous air pollutant (HAP) emissions, as defined in §63.2, it does not meet the definition of an asphalt processing operation or an asphalt roofing manufacturing operation, as defined in §63.11566, since it does not engage in the preparation of asphalt flux or asphalt roofing materials.

- (g) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

*Compliance Assurance Monitoring (CAM)*

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

<b>State Rule Applicability - Entire Source</b>
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**326 IAC 1-6-3 (Preventive Maintenance Plan)**

The source continues to be subject to 326 IAC 1-6-3.

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

PSD applicability is discussed under the PTE of the Entire Source after Issuance of Renewal section above.

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

This source is not subject to the requirements of 326 IAC 2-4.1, since the limited potential to emit of HAPs is 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.

**326 IAC 2-6 (Emission Reporting)**

This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, or LaPorte County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.

**326 IAC 2-8-4 (FESOP)**

FESOP applicability is discussed under the PTE of the Entire Source after Issuance of Renewal section above.

**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 continue to meet the following, unless otherwise stated in this permit:

- (1) 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.

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

**326 IAC 6-4 (Fugitive Dust Emissions Limitations)**

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

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

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

**326 IAC 6.5 PM Limitations Except Lake County**

This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

**326 IAC 12 (New source Performance Standards)**

See Federal Rule Applicability Section of this TSD.

**326 IAC 20 (Hazardous Air Pollutants)**

See Federal Rule Applicability Section of this TSD.

<b>State Rule Applicability - Individual Facilities</b>
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*Drum Mix Asphalt Plant*

**326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)**

Pursuant to 326 IAC 1-2-59, the one (1) 200 MMBtu/hr aggregate dryer burner is not subject to the requirements of 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating) since it is not a source of indirect heating, as defined in 326 IAC 1-2-19 "Combustion for Indirect Heating".

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

Pursuant to 326 IAC 6-3-1(c)(5), the existing stationary drum mix asphalt production plant, including the systems for screening, handling, storing, and weighing hot aggregate (which includes slag and recycled shingles), is not subject to the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) since it is subject to the more stringent particulate limit established in 326 IAC 12. The existing stationary drum hot-mix asphalt plant is subject to 40 CFR 60, Subpart I, incorporated by reference through 326 IAC 12.

**326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)**

Pursuant to 326 IAC 7-1.1-1, the one (1) existing 200 MMBtu/hr aggregate dryer burner is subject to the requirements of 326 IAC 7 (Sulfur Dioxide Emission Limitations), since it has a potential to emit sulfur dioxide of equal to or greater than twenty-five (25) tons per year. Therefore, pursuant to this rule, sulfur dioxide emissions from the aggregate dryer burner at this source shall be limited to:

- (1) The sulfur dioxide (SO<sub>2</sub>) emissions from the aggregate dryer burner shall not exceed five tenths (0.5) pounds per MMBtu when using distillate oil.

- (2) The sulfur dioxide (SO<sub>2</sub>) emissions from the aggregate dryer burner shall not exceed one and six tenths (1.6) pounds per MMBtu heat input when using residual oil.

Note: No. 2 fuel oil is considered distillate oil, and waste oil is considered residual oil.

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

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

**326 IAC 8-1-6 (New Facilities; General Reduction Requirements)**

The unlimited potential VOC emissions from the existing dryer/mixer are greater than twenty-five (25) tons per year. However, the source has opted to limit the potential VOC emissions from the existing dryer/mixer to less than twenty-five (25) tons per year, therefore, rendering the requirements of 326 IAC 8-1-6 Best Available Control Technology (BACT) not applicable.

In order to render the requirements of 326 IAC 8-1-6 not applicable, the existing dryer/mixer shall be limited as follows:

- (1) The amount of hot-mix asphalt processed shall not exceed 1,417,701 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) The VOC emissions from the dryer/mixer shall not exceed 0.032 pounds per ton of asphalt processed.

Compliance with these limits shall limit the potential VOC emissions from the existing dryer/mixer to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable.

See Appendix A for the detailed calculations.

*Diesel Fuel-fired Portable Crusher & Screener*

**326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)**

The diesel fuel-fired portable crusher and screener is not a source of indirect heating, as defined in 326 IAC 1-2-19 "Combustion for indirect heating". Therefore, the requirements of 326 IAC 6-2 do not apply, and are not included in the permit.

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

The 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) applicability is discussed in the "Crushing/Screening Operations" section below.

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

The unlimited potential to emit SO<sub>2</sub> from the diesel fuel-fired portable crusher and screener is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations) do not apply and are not included in the permit.

See Appendix A, for the detailed calculations.

**326 IAC 9-1 (Carbon Monoxide Emission Limits)**

The diesel fuel-fired portable crusher and screener is not one of the source types listed in 326 IAC 9-1-2. Therefore, the requirements of 326 IAC 9-1 (Carbon Monoxide Emission Limits) do not apply and are not included in the permit.

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

The diesel fuel-fired portable crusher and screener does not meet the definition of an affected facility, as defined in 326 IAC 10-3-1(a), because it has a maximum a heat input of less than two hundred fifty million (250,000,000) British thermal units per hour (MMBtu). Therefore, the requirements of 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Category) do not apply and are not included in the permit.

*Crushing/Screening Operation*

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

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the RAP crushing and screening operation shall not exceed 58.51 pounds per hour when operating at a process weight rate of 200 tons per hour. The pound per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

The source shall use wet suppression at all times the crusher, screens, and associated conveyors are in operation in order to comply with this limit. See Appendix A, for the detailed calculations.

*Hot Oil Heater*

**326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)**

The existing hot oil heater, having a maximum rated heat input capacity of 2.2 MMBtu/hr, is subject to 326 IAC 6-2-4 because it was constructed after the rule applicability date of September 21, 1983, and meets the definition of an indirect heating unit, as defined in 326 IAC 1-2-19, since it combusts fuel to produce usable heat that is to be transferred through a heat-conducting materials barrier or by a heat storage medium to a material to be heated so that the material being heated is not contacted by, and adds no substance to the products of combustion.

Pursuant to 326 IAC 6-2-4(a), for a total source maximum operating capacity rating of less than ten (10) MMBtu/hr, the pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input shall not exceed six tenths (0.6) pounds per MMBtu (lb/MMBtu).

Based on Appendix A and AP-42, the potential PM emission rate is 1.9 pounds per million cubic feet of natural gas, or 0.0019 pounds per million British thermal units. Therefore, the hot oil heater can comply with this limit.

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

Pursuant to 326 IAC 6-3-1(b), the one (1) hot oil heater, rated at 2.2 MMBtu/hr, is exempt from the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), since combustion for indirect heating is an exempted manufacturing process.

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

The one (1) hot oil heater is not subject to the requirements of 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations), since the potential to emit sulfur dioxide is less than twenty-five (25) tons per year and ten (10) pounds per hour.

### *Cold-mix Asphalt Production and Storage*

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

The unlimited potential to emit of HAPs from the cold-mix asphalt production operation is greater than ten (10) tons per year for any single HAP and/or greater than twenty-five (25) tons per year of a combination of HAPs. However, the source shall continue to limit the potential to emit of HAPs from the cold-mix asphalt production operation 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, the source will remain an area source of HAPs and the requirements of 326 IAC 2-4.1 do not apply. See the "PTE After Issuance of Renewal" Section above.

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

The existing cold-mix asphalt manufacturing operation and storage piles, a continued source of potential VOC emissions greater than twenty-five (25) tons per year, are subject to the requirements of 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving); therefore, the requirements of 326 IAC 8-1-6 BACT do not apply and are not included in the permit.

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

Any paving application made after January 1, 1980, is subject to the requirements of 326 IAC 8-5-2. Pursuant to this rule, no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

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

#### **326 IAC 8-6-1 (Organic Solvent Emission Limitations)**

The existing stationary drum mix asphalt pavement production plant, located in Hamilton County, received approval to construct in December 1996, and elected to limit their VOC emissions to less than one hundred (100) tons per year under the FESOP Program. Additionally, the cold-mix asphalt production and storage operation is otherwise subject to the requirements of 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving). Therefore, the requirements of 326 IAC 8-6-1 (Organic Solvent Emission Limitations) do not apply to the cold-mix asphalt production and storage operation and are not included in the permit.

### **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.

- (a) The compliance determination requirements applicable to this source are as follows:
- (1) In order to assure compliance with the PM, PM10, and PM2.5 limitations in the permit, the baghouse for the dryer/mixer shall continue to be in operation and control emissions from the dryer/mixer at all times when the dryer/mixer is in operation.
  - (2) In order to assure compliance with particulate limitations, the wet suppression for particulate control shall be in operation and control emissions from the RAP crushing and screening operation at all times when the RAP crushing and screening is in operation.
  - (3) The annual hot-mix asphalt production rate will be used to verify compliance with the FESOP PM10, PM2.5 and VOC emission limitations, and the BACT avoidance VOC emission limitation.
  - (4) The slag and fuel characteristics (i.e., sulfur and chlorine content) and usage rates will be used to verify compliance with the SO2, NOx, and HAPs emission limitations.
  - (5) The waste oil characteristics (i.e., ash and lead content) and usage rates will be used to verify compliance with the FESOP particulate matter and HAP limitations.
  - (6) The shingle characteristics (i.e., lack of asbestos content) will be used to verify compliance with the FESOP HAP limitation.
  - (7) The liquid binder characteristics (i.e., evaporation temperature) and usage rate, in the production of cold-mix cutback asphalt, will be used to verify compliance with the FESOP VOC emission limitation.

(b) The testing requirements applicable to this source are as follows:

<b>Emission Unit</b>	<b>Control Device</b>	<b>Pollutant</b>	<b>Timeframe for Testing</b>	<b>Frequency of Testing</b>
Dryer/mixer	Baghouse	PM, PM10, PM2.5	No later than five (5) years from the last valid test	Once every five (5) years
Dryer/mixer	N/A	SO2*	Within 180 days after initial use of Blast Furnace slag	One time test

\* Testing shall only be performed if the company has not previously performed SO2 testing while using Blast Furnace slag in the aggregate mix at one of their other Indiana facilities.

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

<b>Emission Unit &amp; Control Device</b>	<b>Parameter</b>	<b>Frequency</b>	<b>Range</b>	<b>Excursions and Exceedances</b>
Dryer/mixer baghouse stack exhaust	Visible Emissions	Once per day	Normal/abnormal	Response Steps
Conveyors, screens, and material transfer points	Visible Emissions	Once per day	Normal/abnormal	Response Steps
RAP crushing & associated material conveying, screening and transfer	Visible Emissions	Once per day	Normal/abnormal	Response Steps

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

These monitoring conditions are necessary to assure compliance with 40 CFR 60, Subpart I, 326 IAC 60, Subpart OOO, 326 IAC 2-8 (FESOP), 326 IAC 6-5, and the limits that render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-7 (Part 70 Permit Program) not applicable.

<b>Proposed Changes</b>
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Section A

1. The SIC Code description was added.
2. The cold feed system and RAP bin capacity descriptions were revised per the source.
3. Rule references were removed from descriptions.
4. Asphalt storage tanks 18 and 19 were added per the source.

Sections B and C

1. Rule citations and model language were updated and clarified throughout.

Section D.1

1. Rule citations and model language were updated and clarified throughout.
2. Greenhouse gas requirements were removed from D.1.3, D.1.12, and renumbered D.1.16.
3. The cold feed system and RAP bin capacity descriptions were revised per the source.
4. Fugitive Dust Plan requirements were added to Condition D.1.1.
5. SO<sub>2</sub> and NO<sub>x</sub> limits were removed from Condition D.1.2 since they are limited in Condition D.1.3.
6. The HCl limit was removed from Condition D.1.3 since practically enforceable limits for HCl are already contained in Condition D.1.2.
7. Asphalt Shingle Usage Limitations, Content and Record Keeping were clarified in D.1.3, D.1.13, and renumbered D.1.16.
8. Condition D.1.15 (Reserved) was removed and subsequent Conditions renumbered.

Section D.2

1. Rule citations and model language were updated and clarified throughout.
2. Unit descriptions were renumbered.

Section E.1

1. Rule citations and model language were updated and clarified throughout.
2. Unit descriptions were renumbered.

## Section E.2

1. Rule citations and model language were updated and clarified throughout.
2. Unit descriptions were renumbered.

## Reports

1. Permit number was revised on all reports.
2. The word "daytime" was added to clarify notification timing on the Emergency Occurrence Report and the rule citation was corrected.
3. The word "month" was removed from the Quarterly Reports. Permittee will write in applicable months.
4. Greenhouse gas reporting requirements were removed on Quarterly Reports.

The following changes listed below are due to the proposed revision. Deleted language appears as ~~striketrough~~ text and new language appears as **bold** text:

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

The Permittee owns and operates a stationary hot drum mix asphalt plant, and cold-mix asphalt production operation. Recycled asphalt pavement (RAP) is crushed on-site, and blast furnace slag, electric arc furnace steel mill slag, and/or asbestos-free recycled asphalt shingles are processed in the aggregate mix. This source does not grind any shingles on-site.

Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240  
General Source Phone Number: 317-788-6885  
SIC Code: 2951 (**Asphalt Paving Mixtures and Blocks**)  
County Location: Hamilton

### 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:

- (b) one (1) cold feed system consisting of ~~eight~~**nine (9)** compartments with a total aggregate holding capacity of ~~400~~**450** tons;
- (c) Reclaimed Asphalt Pavement (RAP) bins with a capacity of ~~90~~**120** tons;

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

This stationary source also includes the following insignificant activities:

- (a) one (1) natural gas fired hot oil heater rated at 2.2 MMBtu per hour, identified as emission unit No. 17, using No. 2 fuel oil as back-up fuel, and exhausting at one (1) stack, identified as DS-6; ~~[326 IAC 6-2]~~
- (b) ~~three~~**five (35)** liquid asphalt storage tanks, identified as Tanks 14, 15, ~~and 16~~, **18, and 19**, each with a maximum storage capacity of 20,000 gallons, with emissions exhausted to Stacks DV-3, DV-5, ~~and DV-6~~, **DV-8 and DV9**, respectively;
- (n) paved and unpaved roads and parking lots with public access.; ~~[326 IAC 6-5]~~

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: ~~HMA Plant, RAP Crusher, HOH~~

....

(b) one (1) cold feed system consisting of ~~eight~~**nine (89)** compartments with a total aggregate holding capacity of ~~400~~**450** tons;

(c) Reclaimed Asphalt Pavement (RAP) bins with a capacity of ~~90~~**120** tons;

....

Insignificant Activities: ~~Boilers~~

(a) one (1) natural gas fired hot oil heater rated at 2.2 MMBtu per hour, identified as emission unit No. 17, using No. 2 fuel oil as back-up fuel, and exhausting at one (1) stack, identified as DS-6; ~~[326 IAC 6-2]~~

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

....  
D.1.1 PSD Minor Limit ~~[326 IAC 2-2]~~

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

....  
**(c) The Permittee shall control PM emissions from the paved and unpaved roads according to the fugitive dust plan, included as Attachment A to the permit.**

....  
D.1.2 FESOP Limits: PM10, PM2.5, ~~SO<sub>2</sub>, NO<sub>x</sub>~~, VOC, and CO ~~[326 IAC 2-8-4]~~~~[326 IAC 2-2]~~  
~~[326 IAC 2-1.1-5]~~~~[326 IAC 8-1-6]~~

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

- ....
- (c) The PM2.5 emissions from the dryer/mixer shall not exceed 0.119 pounds of PM2.5 per ton of asphalt produced.
  - ~~(d) The SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 0.058 pounds per ton of asphalt processed.~~
  - ~~(e) The NO<sub>x</sub> emissions from the dryer/mixer shall not exceed 0.055 pounds per ton of asphalt processed.~~
  - (df) The VOC emissions from the dryer/mixer shall not exceed 0.032 pounds per ton of asphalt processed.**
  - (eg) The CO emissions from the dryer/mixer shall not exceed 0.130 pounds per ton of asphalt processed.**
  - (f) The Permittee shall control PM10 and PM2.5 emissions from the paved and unpaved roads according to the fugitive dust plan, included as Attachment A to the permit.**

Compliance with these limits, combined with the potential to emit PM10, PM2.5, ~~SO<sub>2</sub>, NO<sub>x</sub>~~, VOC, and CO from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5, ~~SO<sub>2</sub>, NO<sub>x</sub>~~, VOC, and CO to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits), **and** 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), ~~and 326 IAC 2-1.1-5 (Nonattainment New Source Review)~~ not applicable.

Additionally, compliance with the limits in ~~C~~conditions D.1.2(f)(a) and D.1.2(d) shall limit the VOC emissions from the dryer/mixer to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render 326 IAC 8-1-6 (**New Facilities; VOC Rules: General Reduction Requirements for New Facilities**) not applicable.

....

D.1.3 FESOP Limits: SO<sub>2</sub>, NO<sub>x</sub>, ~~GHGs as CO<sub>2</sub>e~~, and HAPs [326 IAC 2-8-4][326 IAC 2-2]  
[326 IAC 2-4.1]

---

Pursuant to 326 IAC 2-8-4 (**FESOP**), and in order to render 326 IAC 2-2 (**Prevention of Significant Deterioration (PSD)**), 326 IAC 2-7 (**Part 70 Permits**), and 326 IAC 2-4.1 (**Major Sources of Hazardous Air Pollutants (HAP)**) not applicable, the Permittee shall comply with the following:

....

(b) Single Fuel and Slag Usage Limitations:

....

~~Note: The source is only permitted to burn the above-mentioned fuels.~~

(4) The Blast Furnace slag usage shall not exceed 50,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) Multiple Fuel and Slag Usage Limitation:

When combusting **any single fuel or** more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, in conjunction with the use of slag in the aggregate mix, emissions from the dryer/mixer shall be limited as follows:

....

~~(3) CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) from the dryer/mixer burner and hot oil heaters shall not exceed 59,572.20 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.~~

(43) HCl emissions from the dryer/mixer shall not exceed 8.57 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(d) Asphalt Shingle Usage Limitation

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to ~~render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAPs)) not applicable~~ ensure the requirements of **40 CFR 61, Subpart M are not applicable**, the Permittee shall not grind recycled asphalt shingles on-site and shall only use **the following** certified asbestos-free recycled shingles, post consumer waste and/or factory seconds, as an additive in its aggregate mix:

(1) **Certified asbestos-free factory second asphalt shingles;**

(2) **Post-consumer waste shingles generated at single family homes and/or residential buildings containing four or fewer dwelling units; and/or**

(3) **Factory second shingles and/or post-consumer waste shingles that have sampled negative for asbestos.**

Compliance with these limits, combined with the potential to emit SO<sub>2</sub>, NO<sub>x</sub>, ~~greenhouse gases (CO<sub>2</sub>e)~~, and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of SO<sub>2</sub> and NO<sub>x</sub> to less than one hundred (100) tons per twelve (12) consecutive month period, each, ~~greenhouse gases to less than 100,000 tons CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per 12 consecutive month period,~~ any single HAP to less than ten (10) tons per twelve (12) consecutive month period, and total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-7 (Part 70 Permits),

326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) and 40 CFR 61, Subpart M not applicable.

....

D.1.6 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1][326 IAC 7-2-1]

- (a) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), the Permittee shall comply with the following:
- (1) The sulfur dioxide (SO<sub>2</sub>) emissions from the dryer/mixer burner shall not exceed five tenths (0.5) pounds per MMBtu when using distillate oil.
  - (2) The sulfur dioxide (SO<sub>2</sub>) emissions from the dryer/mixer burner shall not exceed one and six tenths (1.6) pounds per MMBtu heat input when using residual oil.
- Note: ~~No. 2 fuel oil is considered distillate oil, and waste oil is considered residual oil.~~
- (b) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

...

Compliance Determination Requirements [326 IAC 2-8-4(1)]

D.1.8 Particulate Control (PM/PM10/PM2.5)

- (a) In order to ~~comply~~ **assure compliance** with Conditions D.1.1(b), D.1.2(b), and D.1.2(c), the baghouse for particulate control shall be in operation and control emissions from the dryer/mixer at all times when the dryer/mixer is in operation.
- (b) In order to **assure compliance** ~~comply~~ with Condition D.1.5, the wet suppression for particulate control shall be in operation and control emissions from the RAP crushing and screening operation at all times when the RAP crushing and screening is in operation.

....

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

- (a) In order to demonstrate compliance with Conditions D.1.1(b), D.1.2(b), and D.1.2(c), the Permittee shall perform PM, PM10, and PM2.5 testing of the dryer/mixer not later than five (5) years from the most recent valid compliance demonstration, utilizing methods approved by the Commissioner. ~~These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.~~ Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable particulate matter.

D.1.10 Sulfur Dioxide (SO<sub>2</sub>) Emissions and Sulfur Content

*Fuel Oil*

- (a) Compliance with the fuel limitations established in Conditions D.1.3(a)(1), D.1.3(a)(2), and D.1.6, shall be determined utilizing one of the following options. Pursuant to 326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements) and 326 IAC 3-7-4 (Fuel oil sampling; analysis methods), compliance shall be demonstrated on a thirty (30) day calendar-month average.
- ....
- (2) Analyzing the oil sample to determine the sulfur content of the ~~oil~~ **fuel** via the procedures in 40 CFR 60, Appendix A, Method 19.

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

....  
*Blast Furnace Slag*

- (b) Compliance with the blast furnace slag limitation established in Condition D.1.3(a)(5) shall be determined utilizing one of the following options. Pursuant to 326 IAC 2-8-4 (FESOP), compliance shall be demonstrated on a thirty (30) day calendar-month average.

....  
*Steel Slag*

- (c) Compliance with the steel slag limitations established in Condition D.1.3(a)(7) shall be determined utilizing one of the following options. Pursuant to 326 IAC 2-8-4 (FESOP), compliance shall be demonstrated on a thirty (30) day calendar-month average.

....  
D.1.12 Multiple Fuel and Slag Usage

---

In order to ~~comply~~ **assure compliance** with the Condition D.1.3(c) when combusting **any single fuel or** more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, in conjunction with the use of slag in the aggregate mix, the Permittee shall limit fuel usage according to the following formula:

....  
~~(c) CO<sub>2</sub> Equivalent (CO<sub>2</sub>e) Emission Calculation:~~

$$\text{CO}_2 = \frac{[G(X_G) + O(X_O) + W(X_W)]}{2,000 \text{ lbs/ton}}$$

$$\text{CH}_4 = \frac{[G(X_G) + O(X_O) + W(X_W)]}{2,000 \text{ lbs/ton}}$$

$$\text{N}_2\text{O} = \frac{[G(X_G) + O(X_O) + W(X_W)]}{2,000 \text{ lbs/ton}}$$

$$\text{CO}_2\text{e} = \sum[(\text{CO}_2 \times \text{CO}_2 \text{ GWP}) + (\text{CH}_4 \times \text{CH}_4 \text{ GWP}) + (\text{N}_2\text{O} \times \text{N}_2\text{O GWP})]$$

where:

CO<sub>2</sub> = tons of CO<sub>2</sub> emissions for a 12-month consecutive period;

CH<sub>4</sub> = tons of CH<sub>4</sub> emissions for a 12-month consecutive period;

N<sub>2</sub>O = tons of N<sub>2</sub>O emissions for a 12-month consecutive period;

CO<sub>2</sub>e = tons of CO<sub>2</sub>e equivalent emissions for a 12-month consecutive period;

G = million cubic feet of natural gas used in the last 12 months;

O = gallons of No. 2 fuel oil used in the last 12 months;

W = gallons of waste oil used in the last 12 months.

CO<sub>2</sub>

X<sub>G</sub> = 120,161.84 pounds per million cubic feet of natural gas;

X<sub>O</sub> = 22,501.41 lbs/1000 gallons of No. 2 fuel oil;

X<sub>W</sub> = 22,024.15 lbs/1000 gallons of waste oil.

CH<sub>4</sub>

X<sub>G</sub> = 2.49 pounds per million cubic feet of natural gas;

X<sub>O</sub> = 0.91 lbs/1000 gallons of No. 2 fuel oil;

X<sub>W</sub> = 0.89 lbs/1000 gallons of waste oil.

N<sub>2</sub>O

X<sub>G</sub> = 2.20 pounds per million cubic feet of natural gas;

X<sub>O</sub> = 0.26 lbs/1000 gallons of No. 2 fuel oil;

X<sub>W</sub> = 0.18 lbs/1000 gallons of waste oil.

Greenhouse Warming Potentials (GWP)

Carbon dioxide (CO<sub>2</sub>) — = 1  
Methane (CH<sub>4</sub>) — = 21  
Nitrous oxide (N<sub>2</sub>O) — = 310

(d) Hydrogen Chloride (HCL) Emission Calculation

$$\text{HCL} = \frac{W(E_w)}{2000 \text{ lbs/ton}}$$

where:

HCL = tons of hydrogen chloride emissions for a 12-month consecutive period

W = gallons of waste oil used in the last 12 months.

E<sub>w</sub> = 13.2 lb/1000 gallons of waste oil.

....

D.1.13 Shingle Asbestos Content

---

Pursuant to 326 IAC 2-8-4, c Compliance with Condition D.1.3(d) shall be determined utilizing one of the following options:

- (1a) Providing shingle supplier certification that the factory second shingles do not contain asbestos; or
- (b) **Obtaining from the post-consumer waste shingle supplier a signed certification that the post-consumer waste shingles were generated at single family homes and/or residential buildings containing four or fewer dwelling units; and/or**
- (2c) Analyzing a sample of the recycled asphalt shingles (~~certified asbestos-free~~, factory seconds and/or post-consumer waste, only) delivery to determine the asbestos content of the recycled asphalt shingles, 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.

....

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

....

D.1.14 Visible Emissions Notations

- 
- (a) Visible emission notations from the ~~conveyors, screens, material transfer points, crusher, and~~ dryer/mixer stack (DS-1) exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

....

~~D.1.15 [RESERVED]~~

D.1.156 Broken or Failed Bag Detection

....

D.1.167 Record Keeping Requirements

....

- (b) To document the compliance status with Conditions D.1.3, ~~and~~ D.1.6, **D.1.10, D.1.11, D.1.12, and D.1.13**, the Permittee shall maintain records in accordance with (1) through (11) below. Records maintained for (1) through (10) below shall be taken monthly and shall be complete and sufficient to establish compliance with the limits established in Conditions D.1.3, ~~and~~ D.1.6, **D.1.10, D.1.11, D.1.12, and D.1.13**.

....

- (2) Actual fuel usage, sulfur content, heat content, and equivalent sulfur dioxide **and**, nitrogen oxides, ~~and CO<sub>2</sub> equivalent (CO<sub>2</sub>e)~~ emission rates for each fuel used at the source since the last compliance determination period;
- (3) Actual waste oil usage, ash, chlorine, and lead content, ~~and equivalent hydrogen chloride emission rate~~ for waste oil used at the source since the last compliance determination period;
- .....
- (9) If the factory second shingle supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:**
  - (A) Factory second shingle supplier certifications;**
  - (B) The name of the factory second shingle supplier(s); and**
  - (C) A statement from the factory second shingle supplier(s) that certifies the shingles from their company do not contain asbestos.**
- (10) If the post-consumer waste shingle supplier certification is used to demonstrate compliance, the following as a minimum, shall be maintained:**
  - (A) Post-consumer waste shingle supplier certifications;**
  - (B) The name of the post-consumer waste shingle supplier(s); and**
  - (C) A statement from the post-consumer shingle supplier(s) that certifies the shingles were generated at single family homes and/or residential buildings containing four or fewer dwelling units.**
- (11) If the factory second shingles and/or post-consumer waste shingles are analyzed to determine the asbestos content, the following, as a minimum, shall be maintained:**
  - (A) The name of the shingle supplier(s);**
  - (B) The name of the certified lab or certified personnel that performed the shingle asbestos content analysis; and**
  - (C) The shingle asbestos content analysis results.**
- ~~(9) A certification, signed by the owner or operator, that the records of the shingle supplier certifications represent all of the shingles used during the period; and~~
- ~~(10) If the shingle supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:~~
  - ~~(A) Shingle supplier certifications;~~
  - ~~(B) The name of the shingle supplier(s); and~~
  - ~~(C) A statement from the shingle supplier(s) that certifies the asbestos content of the shingles from their company.~~
- (dc) To document the compliance status with Condition D.1.14, the Permittee shall maintain records once per day of the visible emission notations. 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 process did not operate that day).**

- (ed) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

#### D.1.178 Reporting Requirements

A Quarterly summaries of the information to document compliance status with Conditions D.1.1(a), D.1.2(a), ~~and D.1.3(b) and D.1.3(c)~~, shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

....

### SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description ~~[326 IAC 2-8-4(10)]~~: Cold-mix Asphalt Production and Storage.

- (dk) Cold-mix (stockpile mix) asphalt manufacturing operations and storage piles.

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

....

#### D.2.2 Volatile Organic Compounds (VOC) [326 IAC 2-8-4][326 IAC 2-2][326 IAC 2-4.1]

**Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (PSD), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable, the VOC emissions from the cold-mix (cutback) asphalt production shall be limited as follows:**

- (a) Pursuant to ~~326 IAC 2-8-4~~, the VOC emissions from the sum of the liquid binders (asphalt emulsions) shall not exceed 46.83 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

....

- (d) When using more than one liquid binder (asphalt emulsion) per twelve (12) consecutive month period, VOC emissions shall be limited as follows:

.....

Compliance with these limits, combined with the potential to emit VOCs and HAPs from all other emission units at this source, will limit source-wide VOC emissions to less than one hundred (100) tons per twelve (12) consecutive month period, any single HAP to less than ten (10) tons per twelve (12) consecutive month period, and total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period, and render 326 IAC 2-7 (Part 70 Permit Program), 326 IAC 2-2 (PSD), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable, **and shall render the source minor under Section 112 of the Clean Air Act.**

....

#### D.2.4 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.2.2 shall be submitted **using the reporting form located at the end of this permit, or its equivalent**, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

....

SECTION E.1

NSPS REQUIREMENTS

Emissions Unit Description [~~326 IAC 2-8-4(10)~~]: HMA Plant

- (a) one (1) aggregate drum mix asphalt plant, identified as emission unit No. 2, constructed in 1996, approved for modification in 2012, with a maximum throughput capacity of 600 tons of raw material per hour, processing blast furnace slag, steel slag, and recycled asphalt shingles (certified asbestos-free, factory seconds and/or post-consumer waste, only), in the aggregate mix, equipped with one (1) natural gas fired aggregate dryer burner with a maximum rated capacity of 200 million British thermal units per hour (MMBtu/hr) using No. 2 distillate fuel oil and re-refined waste oil as back-up fuels and one (1) knock out box and one (1) baghouse for air pollution control, exhausting at one (1) stack, identified as DS-1;
- (b) one (1) cold feed system consisting of **nine (9)**~~eight (8)~~ compartments with a total aggregate holding capacity of **450**~~400~~-tons;
- (c) Reclaimed Asphalt Pavement (RAP) bins with a capacity of **120**~~90~~-tons;
- ....

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

E.1.1 General Provisions Relating to **New Source Performance Standards** ~~the NSPS~~ [326 IAC 12-1][40 CFR 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, **for the emission unit(s) listed above**, except as otherwise specified in 40 CFR 60, Subpart I.
- (b) Pursuant to 40 CFR 60.404, the Permittee shall submit all required notifications and reports to:

....

E.1.2 New Source Performance Standards (NSPS) for Hot-mix Asphalt Facilities [40 CFR Part 60, Subpart I][326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart I (included as Attachment B **to the operating permit of this permit**), which are incorporated by reference as 326 IAC 12, **for the emission unit(s) listed above**: ~~except as otherwise specified in 40 CFR Part 60, Subpart I:~~

- (a) 40 CFR 60.90
- (b) 40 CFR 60.91
- (c) 40 CFR 60.92
- (d) 40 CFR 60.93

Compliance Determination Requirements [326 IAC 2-8-4(1)]

E.1.3 Testing Requirements [326 IAC 2-1.1-11][326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

**In order to demonstrate compliance with Condition E.1.2, the Permittee shall perform the testing required under 40 CFR 60, Subpart I, utilizing methods as approved by the Commissioner, at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.**

~~E.1.3 Testing Requirements [40 CFR Part 60, Subpart I][326 IAC 12-1][326 IAC 2-8-5(a)(1), (4)]  
[326 IAC 2-1.1-11]~~

~~The Permittee shall perform the stack testing required under NSPS 40 CFR 60, Subpart I, utilizing methods as approved by the Commissioner to document compliance with Condition E.1.2. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.~~

....  
SECTION E.2 NSPS REQUIREMENTS

Emissions Unit Description ~~[326 IAC 2-8-4(10)]~~: Recycled Asphalt Pavement (RAP) Crusher

- (h) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2012, with a maximum throughput capacity of 200 tons of RAP per hour; and

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

E.2.1 General Provisions Relating to **New Source Performance Standards** ~~the NSPS~~ [326 IAC 12-1][40 CFR 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, **for the emission unit(s) listed above**, except as otherwise specified in 40 CFR 60, Subpart OOO.
- (b) Pursuant to 40 CFR 60.404, the Permittee shall submit all required notifications and reports to:

....  
E.2.2 ~~NSPS Subpart OOO Requirements - Standards of Performance for Nonmetallic Mineral Processing Plants~~ **NSPS** [40 CFR Part 60, Subpart OOO][326 IAC 12-4]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart OOO (included as Attachment C **to the operating permit of this permit**), which are incorporated by reference as 326 IAC 12, **for the emission unit(s) listed above**: ~~except as otherwise specified in 40 CFR Part 60, Subpart OOO:~~

....  
E.2.3 Testing Requirements [40 CFR Part 60, Subpart OOO][326 IAC 12-1][326 IAC 2-8-5(a)(1),(4)]  
[326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition E.2.2, the Permittee shall perform testing for fugitive emissions from affected facilities without water sprays, as required under NSPS 40 CFR 60, Subpart OOO, not later than five (5) years from the most recent valid compliance demonstration, utilizing methods approved by the Commissioner. Testing shall only be performed if the company has not previously performed testing for the same crusher at one of their other Indiana facilities. ~~This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.~~ **Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).** Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

....

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION

Source Name: Milestone Contractors, L.P.  
Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240  
FESOP Permit No.: F057-~~23089~~**36556**-03289

....

EMERGENCY OCCURRENCE REPORT

Source Name: Milestone Contractors, L.P.  
Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240  
FESOP Permit No.: F057-~~36556~~**23089**-03289

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) **daytime** 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~~ **2-8-12**

....

FESOP Quarterly Report

Source Name: Milestone Contractors, L.P.  
Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240  
FESOP Permit No.: F057-~~36556~~**23089**-03289

....

Month 1  
Month 1  
Month 1

....

FESOP Quarterly Report Page 1 of 3

Source Name: Milestone Contractors, L.P.  
Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240  
FESOP Permit No.: F057-~~36556~~**23089**-03289

Facility: Dryer/Mixer Burner

Parameter: Fuel & Slag Usage / SO<sub>2</sub>, **and** NO<sub>x</sub>, ~~CO<sub>2e</sub>, & HCL~~ emissions

Emission Limits: Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 90.11 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.12(a).

Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 93.62 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.12(b).

~~CO<sub>2</sub> equivalent (CO<sub>2e</sub>) emissions shall not exceed 59,572.20 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.12(c).~~

~~Hydrogen Chloride (HCL) emissions shall not exceed 8.57 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.12(d).~~

Fuel & Slag Limits: When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer and genset generator, in conjunction with the use of slag in the aggregate mix, fuel and slag usage shall not exceed the following:

...  
Emission Limits: Volatile Organic Compound (VOC) emissions from the sum of the binders shall not exceed ~~46.09~~ **46.83** tons per twelve (12) consecutive month period with compliance determined at the end of each month, using the equation found in Condition D.2.2(d).

FESOP Quarterly Report - Fuel & Slag Usage / SO<sub>2</sub>, and NO<sub>x</sub>, CO<sub>2e</sub>, & HCL emissions

....  
~~Greenhouse Gasses (CO<sub>2e</sub>) Emissions (tons per 12 months)~~

....  
~~Hydrogen Chloride (HCl) Emissions (tons per 12 months)~~

....  
~~Month 1~~  
~~Month 1~~  
~~Month 1~~

....  
**QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Milestone Contractors, L.P.  
Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240  
FESOP Permit No.: F057-~~3655623089~~-03289

...

**Recommendation**

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

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 2, 2015. Additional information was received on December 18, 2015.

**Conclusion**

The operation of this existing stationary drum mix asphalt pavement production plant shall be subject to the conditions of the attached FESOP Renewal No. F057-36556-03289.

**IDEM Contact**

- (a) Questions regarding this proposed permit can be directed to Tamara Havics at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8219 or toll free at 1-800-451-6027 extension 2-8219.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**Appendix A.1: Unlimited Emissions Calculations  
Entire Source - Drum Mix**

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96<sup>th</sup> Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

**Asphalt Plant Maximum Capacity - Drum Mix**

Maximum Hourly Asphalt Production =	600	ton/hr								
Maximum Annual Asphalt Production =	5,256,000	ton/yr								
Maximum Annual Blast Furnace Slag Usage =	2,207,520	ton/yr	1.50	% sulfur						
Maximum Annual Steel Slag Usage =	2,207,520	ton/yr	0.66	% sulfur						
Maximum Dryer Fuel Input Rate =	200.0	MMBtu/hr								
Natural Gas Usage =	1,752	MMCF/yr								
No. 2 Fuel Oil Usage =	12,514,286	gal/yr, and	0.50	% sulfur						
No. 4 Fuel Oil Usage =	0	gal/yr, and	0	% sulfur						
Residual (No. 5 or No. 6) Fuel Oil Usage =	0	gal/yr, and	0	% sulfur						
Propane Usage =	0	gal/yr, and	0	gr/100 ft3 sulfur						
Butane Usage =	0	gal/yr, and	0	gr/100 ft3 sulfur						
Used/Waste Oil Usage =	12,514,286	gal/yr, and	0.75	% sulfur	1.02	% ash	0.20	% chlorine,	0.010	% lead
Diesel Fuel Usage - Generator < 600 HP =	0	gal/yr, and								
Diesel Fuel Usage - Generator > 600 HP =	0	gal/yr, and	0	% sulfur						
Unlimited PM Dryer/Mixer Emission Factor =	28.0	lb/ton of asphalt production								
Unlimited PM10 Dryer/Mixer Emission Factor =	6.5	lb/ton of asphalt production								
Unlimited PM2.5 Dryer/Mixer Emission Factor =	1.5	lb/ton of asphalt production								
Unlimited SO2 Dryer/Mixer Emission Factor =	0.058	lb/ton of asphalt production								
Unlimited NOx Dryer/Mixer Emission Factor =	0.055	lb/ton of asphalt production								
Unlimited VOC Dryer/Mixer Emission Factor =	0.032	lb/ton of asphalt production								
Unlimited CO Dryer/Mixer Emission Factor =	0.13	lb/ton of asphalt production								
Unlimited Blast Furnace Slag SO2 Dryer/Mixer Emission Factor =	0.74	lb/ton of slag processed								
Unlimited Steel Slag SO2 Dryer/Mixer Emission Factor =	0.0014	lb/ton of slag processed								

**Unlimited/Uncontrolled Emissions**

Process Description	Unlimited/Uncontrolled Potential to Emit (tons/year)								
	Criteria Pollutants						Hazardous Air Pollutants		
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst Case HAP
<b>Ducted Emissions</b>									
Dryer Fuel Combustion (worst case)	408.47	325.50	325.50	689.85	166.44	6.26	73.58	89.68	82.59 (hydrogen chloride)
Dryer/Mixer (Process)	73,584.00	17,082.00	3,942.00	152.42	144.54	84.10	341.64	28.01	8.15 (formaldehyde)
Dryer/Mixer Slag Processing (worst case)	0	0	0	816.78	0	0	0	0	0
Hot Oil Heater Fuel Combustion/Process (worst case)	0.14	0.23	0.23	4.89	1.38	0.05	0.81	0.022	0.017 (hexane)
Diesel-Fired Generator < 600 HP	0	0	0	0	0	0	0	0	0
Diesel-Fired Generator > 600 HP	0	0	0	0	0	0	0	0	0
Crusher Fuel Combustion *	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Worst Case Emissions**</b>	<b>73,584.14</b>	<b>17,082.23</b>	<b>3,942.23</b>	<b>1,511.52</b>	<b>167.82</b>	<b>84.15</b>	<b>342.45</b>	<b>89.70</b>	<b>82.59</b> (hydrogen chloride)
<b>Fugitive Emissions</b>									
Asphalt Load-Out, Silo Filling, On-Site Yard	2.91	2.91	2.91	0	0	45.02	7.57	0.75	0.23 (formaldehyde)
Material Storage Piles	0.82	0.29	0.29	0	0	0	0	0	0
Material Processing and Handling	16.98	8.03	1.22	0	0	0	0	0	0
Material Crushing, Screening, and Conveying	83.39	30.46	30.46	0	0	0	0	0	0
Unpaved and Paved Roads (worst case)	118.97	30.32	3.03	0	0	0	0	0	0
Cold Mix Asphalt Production	0	0	0	0	0	63,163.98	0	16,475.50	5,684.76 (xylenes)
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0	0	0	0
Volatile Organic Liquid Storage Vessels	0	0	0	0	0	negl	0	negl	0
<b>Total Fugitive Emissions</b>	<b>223.08</b>	<b>72.01</b>	<b>37.91</b>	<b>0.00</b>	<b>0.00</b>	<b>63,209.00</b>	<b>7.57</b>	<b>16,476.25</b>	<b>5,684.76</b> (xylenes)
<b>Totals Unlimited/Uncontrolled PTE</b>	<b>73,807.21</b>	<b>17,154.24</b>	<b>3,980.13</b>	<b>1,511.52</b>	<b>167.82</b>	<b>63,293.15</b>	<b>350.02</b>	<b>16,565.96</b>	<b>5,684.76</b> (xylenes)

negl = negligible

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

\* The crusher has been determined a nonroad vehicle under 40 CFR 60, and 40 CFR 63, therefore, emissions are not counted toward PSD and TV applicability.

\*\*Worst Case Emissions (tons/yr) = Worst Case Emissions from Dryer Fuel Combustion and Dryer/Mixer + Worst Case Emissions From Dryer/Mixer Slag Processing + Worst Case Emissions from Hot Oil Heater Fuel Combustion and Hot Oil Heating System + Diesel-Fired Generator < 600 HP + Diesel-Fired Generator > 600 HP  
 Fuel component percentages provided by the source.

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

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

**Maximum Capacity**

Maximum Fuel Input Rate =	200	MMBtu/hr
Natural Gas Usage =	1,752	MMCF/yr
No. 2 Fuel Oil Usage =	12,514,286	gal/yr, and 0.50 % sulfur
No. 4 Fuel Oil Usage =	0	gal/yr, and 0 % sulfur
Residual (No. 5 or No. 6) Fuel Oil Usage =	0	gal/yr, and 0 % sulfur
Propane Usage =	0	gal/yr, and 0 qr/100 ft3 sulfur
Butane Usage =	0	gal/yr, and 0 qr/100 ft3 sulfur
Used/Waste Oil Usage =	12,514,286	gal/yr, and 0.75 % sulfur, 1.02 % ash, 0.20 % chlorine, 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)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/Waste Oil (tons/yr)	Worse Case Fuel (tons/yr)
PM	1.9	2.0	7.0	3.22	0.5	0.6	65.3	1.66	12.51	0	0	0	0	408.47	408.47
PM10/PM2.5	7.6	3.3	8.3	4.72	0.5	0.6	52.02	6.66	20.85	0	0	0	0	325.50	325.50
SO2	0.6	71.0	0	0	0	0	110.3	0.53	444.26	0	0	0	0	689.85	689.85
NOx	190	24.0	47.0	47.0	13.0	15.0	19.0	166.44	150.17	0	0	0	0	118.89	166.44
VOC	5.5	0.20	0.20	0.28	1.00	1.10	1.0	4.82	1.25	0	0	0	0	6.26	6.26
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	73.584	31.29	0	0	0	0	31.29	73.58
<b>Hazardous Air Pollutant</b>															
HCl							13.2							82.59	82.59
Antimony			5.25E-03	5.25E-03			negl			0	0			negl	0
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03			1.1E-01	1.8E-04	3.50E-03	0	0			6.88E-01	0.688
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05			negl	1.1E-05	2.63E-03	0	0			negl	2.6E-03
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04			9.3E-03	9.6E-04	2.63E-03	0	0			5.82E-02	0.058
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04			2.0E-02	1.2E-03	2.63E-03	0	0			1.25E-01	0.125
Cobalt	8.4E-05		6.02E-03	6.02E-03			2.1E-04	7.4E-05		0	0			1.31E-03	1.3E-03
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03			0.55	4.4E-04	7.88E-03	0	0			3.4E+00	3.44
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03			6.8E-02	3.3E-04	5.26E-03	0	0			4.25E-01	0.43
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04				2.3E-04	2.63E-03	0	0			2.6E-03	2.6E-03
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02			1.1E-02	1.8E-03	2.63E-03	0	0			6.88E-02	0.069
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04				2.1E-05	1.31E-02	0	0			negl	0.013
1,1,1-Trichloroethane			2.36E-04	2.36E-04						0	0				0
1,3-Butadiene															0
Acetaldehyde															0
Acrolein															0
Benzene	2.1E-03		2.14E-04	2.14E-04				1.8E-03		0	0				1.8E-03
Bis(2-ethylhexyl)phthalate							2.2E-03							1.38E-02	0.014
Dichlorobenzene	1.2E-03						8.0E-07	1.1E-03						5.01E-06	1.1E-03
Ethylbenzene			6.36E-05	6.36E-05						0	0				0
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				6.6E-02	3.82E-01	0	0				0.382
Hexane	1.8E+00							1.58							1.577
Phenol														1.50E-02	0.015
Toluene	3.4E-03		6.20E-03	6.20E-03				3.0E-03		0	0				3.0E-03
Total PAH Haps	negl		1.13E-03	1.13E-03			3.9E-02	negl		0	0			2.45E-01	0.245
Polycyclic Organic Matter		3.30E-03							2.06E-02						0.021
Xylene			1.09E-04	1.09E-04						0	0				0
<b>Total HAPs</b>								<b>1.65</b>	<b>0.45</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>87.68</b>	<b>89.68</b>

**Methodology**

Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 MMCF/1,000 MMBtu]  
 Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.140 MMBtu]  
 Propane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.0905 MMBtu]  
 Butane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.0974 MMBtu]  
 Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] \* [Emission Factor (lb/MMCF)] \* [ton/2000 lbs]  
 All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] \* [Emission Factor (lb/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 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11
- Propane and Butane: AP-42 Chapter 1.5 (dated 7/08), Tables 1.5-1 (assuming PM = PM10)
- Waste Oil: AP-42 Chapter 1.11 (dated 10/96), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5

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

**Abbreviations**

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

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

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

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

Criteria Pollutant	Uncontrolled Emission Factors (lb/ton)			Unlimited/Uncontrolled Potential to Emit (tons/yr)			Worse Case PTE
	Drum-Mix Plant (dryer/mixer)			Drum-Mix Plant (dryer/mixer)			
	Natural Gas	No. 2 Fuel Oil	Waste Oil	Natural Gas	No. 2 Fuel Oil	Waste Oil	
PM*	28	28	28	73,584.00	73,584.00	73,584.00	<b>73,584.00</b>
PM10*	6.5	6.5	6.5	17,082.00	17,082.00	17,082.00	<b>17,082.00</b>
PM2.5*	1.5	1.5	1.5	3,942.00	3,942.00	3,942.00	<b>3,942.00</b>
SO2**	0.0034	0.011	0.058	8.9	28.9	152.4	<b>152.4</b>
NOx**	0.026	0.055	0.055	68.3	144.5	144.5	<b>144.5</b>
VOC**	0.032	0.032	0.032	84.1	84.1	84.1	<b>84.1</b>
CO***	0.13	0.13	0.13	341.6	341.6	341.6	<b>341.6</b>
<b>Hazardous Air Pollutant</b>							
HCl			2.10E-04			5.52E-01	<b>0.55</b>
Antimony	1.80E-07	1.80E-07	1.80E-07	4.73E-04	4.73E-04	4.73E-04	<b>4.73E-04</b>
Arsenic	5.60E-07	5.60E-07	5.60E-07	1.47E-03	1.47E-03	1.47E-03	<b>1.47E-03</b>
Beryllium	negl	negl	negl	negl	negl	negl	<b>0</b>
Cadmium	4.10E-07	4.10E-07	4.10E-07	1.08E-03	1.08E-03	1.08E-03	<b>1.08E-03</b>
Chromium	5.50E-06	5.50E-06	5.50E-06	1.45E-02	1.45E-02	1.45E-02	<b>1.45E-02</b>
Cobalt	2.60E-08	2.60E-08	2.60E-08	6.83E-05	6.83E-05	6.83E-05	<b>6.83E-05</b>
Lead	6.20E-07	1.50E-05	1.50E-05	1.63E-03	3.94E-02	3.94E-02	<b>3.94E-02</b>
Manganese	7.70E-06	7.70E-06	7.70E-06	2.02E-02	2.02E-02	2.02E-02	<b>2.02E-02</b>
Mercury	2.40E-07	2.60E-06	2.60E-06	6.31E-04	6.83E-03	6.83E-03	<b>6.83E-03</b>
Nickel	6.30E-05	6.30E-05	6.30E-05	0.17	0.17	0.17	<b>0.17</b>
Selenium	3.50E-07	3.50E-07	3.50E-07	9.20E-04	9.20E-04	9.20E-04	<b>9.20E-04</b>
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	0.11	0.11	0.11	<b>0.11</b>
Acetaldehyde			1.30E-03			3.42	<b>3.42</b>
Acrolein			2.60E-05			6.83E-02	<b>6.83E-02</b>
Benzene	3.90E-04	3.90E-04	3.90E-04	1.02	1.02	1.02	<b>1.02</b>
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.63	0.63	0.63	<b>0.63</b>
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	8.15	8.15	8.15	<b>8.15</b>
Hexane	9.20E-04	9.20E-04	9.20E-04	2.42	2.42	2.42	<b>2.42</b>
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.13	0.13	0.13	<b>0.13</b>
MEK			2.00E-05			0.05	<b>0.05</b>
Propionaldehyde			1.30E-04			0.34	<b>0.34</b>
Quinone			1.60E-04			0.42	<b>0.42</b>
Toluene	1.50E-04	2.90E-03	2.90E-03	0.39	7.62	7.62	<b>7.62</b>
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.50	2.31	2.31	<b>2.31</b>
Xylene	2.00E-04	2.00E-04	2.00E-04	0.53	0.53	0.53	<b>0.53</b>
<b>Total HAPs</b>							<b>28.01</b>
<b>Worst Single HAP</b>							<b>8.15 (formaldehyde)</b>

**Methodology**

Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) \* (Emission Factor (lb/ton)) \* (ton/2000 lbs)  
 Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-3, 11.1-7, 11.1-8, 11.1-10, and 11.1-12  
 Natural gas, No. 2 fuel oil, and waste oil represent the worst possible emissions scenario. AP-42 did not provide emission factors for any other fuels.

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

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

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

**Abbreviations**

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

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

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

Maximum Annual Blast Furnace Slag Usage = 

2,207,520
-----------

 ton/yr 

1.50
------

 % sulfur  
 Maximum Annual Steel Slag Usage = 

2,207,520
-----------

 ton/yr 

0.66
------

 % sulfur

Type of Slag	SO2 Emission Factor (lb/ton)	Unlimited Potential to Emit SO2 (tons/yr)
Blast Furnace Slag*	0.74	816.78
Steel Slag**	0.0014	1.55

**Methodology**

The maximum annual slag usage was provided by the source.

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

\*\* Testing results for steel slag, obtained June 2009 from E & B Paving, Inc. facility located in Huntington, IN. The testing results showed a steel slag emission factor of 0.0007 lb/ton from slag containing 0.33% sulfur content.

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

**Abbreviations**

SO2 = Sulfur Dioxide

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

Maximum Hot Oil Heater Fuel Input Rate = 2.20 MMBtu/hr  
 Natural Gas Usage = 19 MMCF/yr  
 No. 2 Fuel Oil Usage = 137,657 gal/yr, and 0.50 % sulfur

**Unlimited/Uncontrolled Emissions**

Criteria Pollutant	Emission Factor (units)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		Worse Case Fuel (tons/yr)
	Hot Oil Heater		Hot Oil Heater		
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	
PM	1.9	2.0	0.018	0.138	0.14
PM10/PM2.5	7.6	3.3	0.073	0.227	0.23
SO2	0.6	71.0	0.006	4.887	4.89
NOx	100	20.0	0.964	1.377	1.38
VOC	5.5	0.20	0.053	0.014	0.05
CO	84	5.0	0.809	0.344	0.81
<b>Hazardous Air Pollutant</b>					
Arsenic	2.0E-04	5.6E-04	1.9E-06	3.85E-05	3.9E-05
Beryllium	1.2E-05	4.2E-04	1.2E-07	2.89E-05	2.9E-05
Cadmium	1.1E-03	4.2E-04	1.1E-05	2.89E-05	2.9E-05
Chromium	1.4E-03	4.2E-04	1.3E-05	2.89E-05	2.9E-05
Cobalt	8.4E-05		8.1E-07		8.1E-07
Lead	5.0E-04	1.3E-03	4.8E-06	8.67E-05	8.7E-05
Manganese	3.8E-04	8.4E-04	3.7E-06	5.78E-05	5.8E-05
Mercury	2.6E-04	4.2E-04	2.5E-06	2.89E-05	2.9E-05
Nickel	2.1E-03	4.2E-04	2.0E-05	2.89E-05	2.9E-05
Selenium	2.4E-05	2.1E-03	2.3E-07	1.45E-04	1.4E-04
Benzene	2.1E-03		2.0E-05		2.0E-05
Dichlorobenzene	1.2E-03		1.2E-05		1.2E-05
Ethylbenzene					0
Formaldehyde	7.5E-02	6.10E-02	7.2E-04	4.20E-03	4.2E-03
Hexane	1.8E+00		1.7E-02		1.7E-02
Phenol					0
Toluene	3.4E-03		3.3E-05		3.3E-05
Total PAH Haps	negl		negl		0
Polycyclic Organic Matter		3.30E-03		2.27E-04	2.3E-04
<b>Total HAPs =</b>			<b>1.8E-02</b>	<b>4.9E-03</b>	<b>0.022</b>
<b>Worst Single HAP =</b>			<b>1.7E-02</b>	<b>4.2E-03</b>	<b>1.7E-02</b>
			<b>(Hexane)</b>	<b>(Formaldehyde)</b>	<b>(Hexane)</b>

**Methodology**

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

Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4  
 No. 2 Fuel Oil: AP-42 Chapter 1.3 (dated 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11

**Abbreviations**

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

**Appendix A.1: Unlimited Emissions Calculations  
Hot Oil Heating System - Process Emissions**

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

The following calculations determine the unlimited/uncontrolled emissions from the combustion of natural gas and No. 2 fuel oil in the hot oil heating system, which is used to heat a specially designed transfer oil. The hot transfer oil is then pumped through a piping system that passes through the asphalt cement storage tanks, in order to keep the asphalt cement at the correct temperature.

Maximum Fuel Input Rate To Hot Oil Heater = 2.20 MMBtu/hr  
 Natural Gas Usage = 19 MMCF/yr, and  
 No. 2 Fuel Oil Usage = 137,657 gal/yr

Criteria Pollutant	Emission Factors		Unlimited/Uncontrolled Potential to Emit (tons/yr)		Wors 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	2.51E-04	0.002	<b>0.002</b>
CO	8.90E-06	0.0012	0.086	0.083	<b>0.086</b>
Hazardous Air Pollutant					
Formaldehyde	2.60E-08	3.50E-06	2.51E-04	2.41E-04	<b>2.51E-04</b>
Acenaphthene		5.30E-07		3.65E-05	<b>3.65E-05</b>
Acenaphthylene		2.00E-07		1.38E-05	<b>1.38E-05</b>
Anthracene		1.80E-07		1.24E-05	<b>1.24E-05</b>
Benzo(b)fluoranthene		1.00E-07		6.88E-06	<b>6.88E-06</b>
Fluoranthene		4.40E-08		3.03E-06	<b>3.03E-06</b>
Fluorene		3.20E-08		2.20E-06	<b>2.20E-06</b>
Naphthalene		1.70E-05		1.17E-03	<b>1.17E-03</b>
Phenanthrene		4.90E-06		3.37E-04	<b>3.37E-04</b>
Pyrene		3.20E-08		2.20E-06	<b>2.20E-06</b>
<b>Total HAPs</b>					<b>1.83E-03</b>
<b>Worst Single HAP</b>					<b>1.17E-03</b>

**Methodology**

Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 MMCF (Naphthalene)]  
 No. 2 Fuel Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.140 MMBtu]  
 Natural Gas: Potential to Emit (tons/yr) = (Natural Gas Usage (MMCF/yr))\*(Emission Factor (lb/CF))\*(1000000 CF/MMCF)\*(ton/2000 lbs)  
 No. 2 Fuel Oil: Potential to Emit (tons/yr) = (No. 2 Fuel Oil Usage (gals/yr))\*(Emission Factor (lb/gal))\*(ton/2000 lbs)  
 1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu  
 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.1: Unlimited Emissions Calculations  
Reciprocating Internal Combustion Engines - Diesel Fuel  
Output Rating (<=600 HP)**

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

Output Horsepower Rating (hp)	0
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	0
Maximum Diesel Fuel Usage (gal/yr)	0

	Pollutant						
	PM <sup>2</sup>	PM10 <sup>2</sup>	direct PM2.5 <sup>2</sup>	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Emission Factor in lb/kgal <sup>1</sup>	43.07	43.07	43.07	40.13	606.85	49.22	130.77
Potential Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

<sup>1</sup> The AP-42 Chapter 3.3-1 emission factors in lb/hp-hr were converted to lb/kgal emission factors using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

<sup>1</sup>Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) \* 1/7,000 (hp-hr/Btu) \* 19,300 (Btu/lb) \* 7.1 (lb/gal) \* 1,000 (gal/kgal)

<sup>2</sup>PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

**Hazardous Air Pollutants (HAPs)**

	Pollutant							Total PAH HAPs <sup>3</sup>
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	
Emission Factor in lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	3.91E-05	1.18E-03	7.67E-04	9.25E-05	1.68E-04
Emission Factor in lb/kgal <sup>4</sup>	1.28E-01	5.60E-02	3.91E-02	5.36E-03	1.62E-01	1.05E-01	1.27E-02	2.30E-02
Potential Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

<sup>3</sup>PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

<sup>4</sup>The AP-42 Chapter 3.3-1 emission factors in lb/MMBtu were converted to lb/kgal emission factors using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

<sup>4</sup>Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) \* 1/10<sup>6</sup> (MMBtu/Btu) \* 19,300 (Btu/lb) \* 7.1 (lb/gal) \* 1,000 (gal/kgal)

<b>Potential Emission of Total HAPs (tons/yr)</b>	<b>0.00E+00</b>
<b>Potential Emission of Worst Case HAPs (tons/yr)</b>	<b>0.00E+00</b>

**Appendix A.1: Unlimited Emissions Calculations**  
**Large Reciprocating Internal Combustion Engines - Diesel Fuel**  
**Output Rating (>600 HP)**

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

Output Horsepower Rating (hp)	0	Sulfur Content (S) of Fuel (% by weight)	0
Maximum Hours Operated per Year	8760		
Potential Throughput (hp-hr/yr)	0		
Maximum Diesel Fuel Usage (gal/yr)	0		

	Pollutant						
	PM	PM10 <sup>2</sup>	direct PM2.5 <sup>2</sup>	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04			0.00E+00 (.00809S)	2.40E-02	7.05E-04	5.50E-03
Emission Factor in lb/MMBtu		0.0573	0.0573				
Emission Factor in lb/kgal <sup>1</sup>	13.70	7.85	7.85	0.00	469.82	13.80	107.67
Potential Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

<sup>1</sup>The AP-42 Chapter 3.4-1 emission factors in lb/hp-hr were converted to lb/kgal emission factors using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

<sup>1</sup>Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) \* 1/7,000 (hp-hr/Btu) \* 19,300 (Btu/lb) \* 7.1 (lb/gal) \* 1,000 (gal/kgal)

<sup>2</sup>Emission factors in lb/kgal were converted from the AP-42 Chapter 3.4-1 emission factors in lb/MMBtu using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

<sup>2</sup>Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) \* 1/10<sup>6</sup> (MMBtu/Btu) \* 19,300 (Btu/lb) \* 7.1 (lb/gal) \* 1,000 (gal/kgal)

**Hazardous Air Pollutants (HAPs)**

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs <sup>3</sup>
Emission Factor in lb/MMBtu	7.76E-04	2.81E-04	1.93E-04	7.89E-05	2.52E-05	7.88E-06	2.12E-04
Emission Factor in lb/kgal <sup>4</sup>	1.06E-01	3.85E-02	2.64E-02	1.08E-02	3.45E-03	1.08E-03	2.91E-02
Potential Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

<sup>3</sup>PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

<sup>4</sup>Emission factors in lb/kgal were converted from the AP-42 Chapter 3.4-1 emission factors in lb/MMBtu using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

<sup>4</sup>Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) \* 1/10<sup>6</sup> (MMBtu/Btu) \* 19,300 (Btu/lb) \* 7.1 (lb/gal) \* 1,000 (gal/kgal)

<b>Potential Emission of Total HAPs (tons/yr)</b>	<b>0.00E+00</b>
<b>Potential Emission of Worst Case HAPs (tons/yr)</b>	<b>0.00E+00</b>

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

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

Asphalt Temperature, T =	325	F
Asphalt Volatility Factor, V =	-0.5	
Maximum Annual Asphalt Production =	5,256,000	tons/yr

Pollutant	Emission Factor (lb/ton asphalt)			Unlimited/Uncontrolled Potential to Emit (tons/yr)			
	Load-Out	Silo Filling	On-Site Yard	Load-Out	Silo Filling	On-Site Yard	Total
Total PM*	5.2E-04	5.9E-04	NA	1.37	1.54	NA	2.91
Organic PM	3.4E-04	2.5E-04	NA	0.90	0.667	NA	1.56
TOC	0.004	0.012	0.001	10.93	32.03	2.891	45.8
CO	0.001	0.001	3.5E-04	3.55	3.101	0.925	7.57

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

<b>PM/HAPs</b>	<b>0.064</b>	<b>0.075</b>	<b>0</b>	<b>0.139</b>
<b>VOC/HAPs</b>	<b>0.161</b>	<b>0.407</b>	<b>0.043</b>	<b>0.611</b>
<b>non-VOC/HAPs</b>	<b>8.4E-04</b>	<b>8.6E-05</b>	<b>2.2E-04</b>	<b>1.2E-03</b>
<b>non-VOC/non-HAPs</b>	<b>0.79</b>	<b>0.45</b>	<b>0.21</b>	<b>1.46</b>
<b>Total VOCs</b>	<b>10.27</b>	<b>32.03</b>	<b>2.7</b>	<b>45.0</b>
<b>Total HAPs</b>	<b>0.23</b>	<b>0.48</b>	<b>0.043</b>	<b>0.75</b>
		<b>Worst Single HAP</b>		<b>0.233</b>
				<b>(formaldehyde)</b>

**Methodology**

The asphalt temperature and volatility factor were provided by the source.

Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) \* (Emission Factor (lb/ton)) \* (ton/2000 lbs)  
 Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-14, 11.1-15, and 11.1-16

Plant Load-Out Emission Factor Equations (AP-42 Table 11.1-14):

Total PM/PM10/PM2.5 Ef = 0.000181 + 0.00141(-V)e<sup>-(0.0251)(T+460)-20.43</sup>  
 Organic PM Ef = 0.00141(-V)e<sup>-(0.0251)(T+460)-20.43</sup>  
 TOC Ef = 0.0172(-V)e<sup>-(0.0251)(T+460)-20.43</sup>  
 CO Ef = 0.00558(-V)e<sup>-(0.0251)(T+460)-20.43</sup>

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

PM/PM10 Ef = 0.000332 + 0.00105(-V)e<sup>-(0.0251)(T+460)-20.43</sup>  
 Organic PM Ef = 0.00105(-V)e<sup>-(0.0251)(T+460)-20.43</sup>  
 TOC Ef = 0.0504(-V)e<sup>-(0.0251)(T+460)-20.43</sup>  
 CO Ef = 0.00488(-V)e<sup>-(0.0251)(T+460)-20.43</sup>

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

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

**Abbreviations**

TOC = Total Organic Compounds  
 CO = Carbon Monoxide  
 PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)  
 HAP = Hazardous Air Pollutant  
 VOC = Volatile Organic Compound

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

**Organic Particulate-Based Compounds (Table 11.1-15)**

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Unlimited/Uncontrolled Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of Total Organic PM)	Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)	Load-out	Silo Filling	Onsite Yard	Total
PAH HAPs										
Acenaphthene	83-32-9	PM/HAP	POM	Organic PM	0.26%	0.47%	2.3E-03	3.1E-03	NA	5.5E-03
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	0.014%	2.5E-04	9.3E-05	NA	3.4E-04
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	0.13%	6.3E-04	8.7E-04	NA	1.5E-03
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	0.056%	1.7E-04	3.7E-04	NA	5.4E-04
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	0	6.8E-05	0	NA	6.8E-05
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	0	2.0E-05	0	NA	2.0E-05
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	0	1.7E-05	0	NA	1.7E-05
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	0	2.1E-05	0	NA	2.1E-05
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	0.0095%	7.0E-05	6.3E-05	NA	1.3E-04
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	0.21%	9.2E-04	1.4E-03	NA	2.3E-03
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	0	3.3E-06	0	NA	3.3E-06
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	0.15%	4.5E-04		NA	4.5E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.01%	6.9E-03	6.7E-03	NA	1.4E-02
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	0	4.2E-06	0	NA	4.2E-06
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	5.27%	2.1E-02	3.5E-02	NA	0.056
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	1.82%	1.1E-02	1.2E-02	NA	2.3E-02
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	0.03%	2.0E-04	2.0E-04	NA	4.0E-04
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.80%	7.3E-03	1.2E-02	NA	1.9E-02
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	0.44%	1.3E-03	2.9E-03	NA	4.3E-03
<b>Total PAH HAPs</b>							<b>0.053</b>	<b>0.075</b>	<b>NA</b>	<b>0.128</b>
Other semi-volatile HAPs										
Phenol		PM/HAP	---	Organic PM	1.18%	0	1.1E-02	0	0	1.1E-02

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

**Methodology**

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

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

**Abbreviations**

PM = Particulate Matter

HAP = Hazardous Air Pollutant

POM = Polycyclic Organic Matter

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

**Organic Volatile-Based Compounds (Table 11.1-16)**

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Unlimited/Uncontrolled Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of TOC)	Silo Filling and Asphalt Storage Tank (% by weight of TOC)	Load-out	Silo Filling	Onsite Yard	Total
<b>VOC</b>		VOC	---	TOC	94%	100%	<b>10.27</b>	<b>32.03</b>	<b>2.72</b>	<b>45.02</b>
non-VOC/non-HAPS										
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	0.26%	7.1E-01	8.3E-02	1.9E-01	0.982
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	0.055%	5.0E-03	1.8E-02	1.3E-03	0.024
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.10%	7.8E-02	3.5E-01	2.1E-02	0.450
<b>Total non-VOC/non-HAPS</b>					<b>7.30%</b>	<b>1.40%</b>	<b>0.798</b>	<b>0.448</b>	<b>0.211</b>	<b>1.46</b>
Volatile organic HAPs										
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	0.032%	5.7E-03	1.0E-02	1.5E-03	1.7E-02
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	0.0049%	1.0E-03	1.6E-03	2.8E-04	2.9E-03
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	0.039%	5.4E-03	1.2E-02	1.4E-03	1.9E-02
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	0.016%	1.4E-03	5.1E-03	3.8E-04	6.9E-03
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	0.004%	2.3E-05	1.3E-03	6.1E-06	1.3E-03
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	0.023%	1.6E-03	7.4E-03	4.3E-04	9.4E-03
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	0	1.2E-02	0	3.2E-03	1.5E-02
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	0.038%	3.1E-02	1.2E-02	8.1E-03	0.051
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	0.69%	9.6E-03	2.2E-01	2.5E-03	0.233
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	0.10%	1.6E-02	3.2E-02	4.3E-03	0.053
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	0.00031%	2.0E-04	9.9E-05	5.2E-05	3.5E-04
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0.00027%	0	8.6E-05	0	8.6E-05
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	0.0054%	8.0E-04	1.7E-03	2.1E-04	2.7E-03
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	0	8.4E-04	0	2.2E-04	1.1E-03
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	0.062%	2.3E-02	2.0E-02	6.1E-03	0.049
1,1,1-Trichloroethane	71-55-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichloroethene	79-01-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	VOC/HAP	---	TOC	0.0013%	0	1.4E-04	0	3.8E-05	1.8E-04
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	0.20%	4.5E-02	6.4E-02	1.2E-02	0.121
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	0.057%	8.7E-03	1.8E-02	2.3E-03	2.9E-02
<b>Total volatile organic HAPs</b>					<b>1.50%</b>	<b>1.30%</b>	<b>0.164</b>	<b>0.416</b>	<b>0.043</b>	<b>0.624</b>

**Methodology**

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

**Abbreviations**

TOC = Total Organic Compounds  
 HAP = Hazardous Air Pollutant  
 VOC = Volatile Organic Compound  
 MTBE = Methyl tert butyl ether

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

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

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

where  $E_f$  = emission factor (lb/acre/day)  
 $s$  = silt content (wt %)  
 $p$  = 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/PM2.5 (tons/yr)
Sand	2.6	3.01	0.18	0.099	0.035
Limestone	1.6	1.85	0.97	0.328	0.115
RAP	0.5	0.58	0.33	0.035	0.012
Gravel	1.6	1.85	0	0	0
Shingles	0.5	0.58	0.40	0.042	0.015
Slag	3.8	4.40	0.40	0.321	0.112
<b>Totals</b>				<b>0.82</b>	<b>0.29</b>

**Methodology**

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

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

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

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

PM2.5 = PM10

**Abbreviations**

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

PTE = Potential to Emit

RAP = Recycled Asphalt Pavement

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

**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.

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

where:  $E_f$  = Emission factor (lb/ton)

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

Maximum Annual Asphalt Production = 5,256,000 tons/yr  
 Percent Asphalt Cement/Binder (weight %) = 5.0%  
 Maximum Material Handling Throughput = 4,993,200 tons/yr

Type of Activity	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10 (tons/yr)	Unlimited/Uncontrolled PTE of PM2.5 (tons/yr)
Truck unloading of materials into storage piles	5.66	2.68	0.41
Front-end loader dumping of materials into feeder bins	5.66	2.68	0.41
Conveyor dropping material into dryer/mixer or batch tower	5.66	2.68	0.41
<b>Total (tons/yr)</b>	<b>16.98</b>	<b>8.03</b>	<b>1.22</b>

**Methodology**

The percent asphalt cement/binder provided by the source.

Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] \* [1 - Percent Asphalt Cement/Binder (weight %)]

Unlimited Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) \* (Emission Factor (lb/ton)) \* (ton/2000 lbs)

Raw materials may include limestone, sand, recycled asphalt pavement (RAP), gravel, slag, and other additives

\*Worst case annual mean wind speed (Indianapolis, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006

**Material Screening and Conveying (AP-42 Section 11.19.2)**

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

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10/PM2.5 (tons/yr)**
Crushing	0.0054	0.0024	13.48	5.99
Screening	0.025	0.0087	62.42	21.72
Conveying	0.003	0.0011	7.49	2.75
<b>Unlimited Potential to Emit (tons/yr) =</b>			<b>83.39</b>	<b>30.46</b>

**Methodology**

Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] \* [1 - Percent Asphalt Cement/Binder (weight %)]

Unlimited Potential to Emit (tons/yr) = [Maximum Material Handling Throughput (tons/yr)] \* [Emission Factor (lb/ton)] \* [ton/2000 lbs]

Raw materials may include stone/gravel, slag, and recycled asphalt pavement (RAP)

Emission Factors from AP-42 Chapter 11.19.2 (dated 8/04), Table 11.19.2-2

\*Uncontrolled emissions factors for PM/PM10 represent tertiary crushing of stone with moisture content ranging from 0.21 to 1.3 percent by weight (Table 11.19.2-2). The bulk moisture content of aggregate in the storage piles at a hot mix asphalt production plant typically stabilizes between 3 to 5 percent by weight (Source: AP-42 Section 11.1.1.1).

\*\*Assumes PM10 = PM2.5

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10  $\mu$ m)

PM2.5 = Particulate matter (< 2.5  $\mu$ m)  
 PTE = Potential to Emit

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

**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 =	5,256,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	4,993,200	tons/yr
Maximum Asphalt Cement/Binder Throughput =	262,800	tons/yr
Maximum No. 2 Fuel Oil Usage =	12,514,286	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.4	2.2E+05	8.8E+06	300	0.057	12,665.4
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.0	2.2E+05	3.8E+06	300	0.057	12,665.4
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	7.3E+03	3.5E+05	300	0.057	414.8
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	7.3E+03	8.8E+04	300	0.057	414.8
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.0	1.3E+03	5.8E+04	300	0.057	75.1
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	1.3E+03	1.6E+04	300	0.057	75.1
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.2	1.2E+06	2.3E+07	150	0.028	33,774.4
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	1.2E+06	1.8E+07	150	0.028	33,774.4
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.0	2.2E+05	9.0E+06	300	0.057	12,443.2
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.0	2.2E+05	3.7E+06	300	0.057	12,443.2
<b>Total</b>					<b>3.3E+06</b>	<b>6.6E+07</b>			<b>1.2E+05</b>

Average Vehicle Weight Per Trip =	20.3	tons/trip
Average Miles Per Trip =	0.036	miles/trip

Unmitigated Emission Factor, Ef = k\*(s/12)^a\*(W/3)^b (Equation 1a from AP-42 13.2.2)

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

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E \* [(365 - P)/365]

Mitigated Emission Factor, Eext =	E * [(365 - P)/365]
where P =	125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

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

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	38.60	9.84	0.98	25.38	6.47	0.65	12.69	3.23	0.32
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	38.60	9.84	0.98	25.38	6.47	0.65	12.69	3.23	0.32
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	1.264	0.322	0.03	0.831	0.212	0.02	0.416	0.106	0.01
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	1.264	0.322	0.03	0.831	0.212	0.02	0.416	0.106	0.01
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.229	0.058	0.01	0.150	0.038	0.00	0.075	0.019	0.00
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.229	0.058	0.01	0.150	0.038	0.00	0.075	0.019	0.00
Aggregate/RAP Loader Full	Front-end loader (3 CY)	102.93	26.23	2.62	67.68	17.25	1.72	33.84	8.62	0.86
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	102.93	26.23	2.62	67.68	17.25	1.72	33.84	8.62	0.86
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	37.92	9.66	0.97	24.93	6.35	0.64	12.47	3.18	0.32
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	37.92	9.66	0.97	24.93	6.35	0.64	12.47	3.18	0.32
<b>Totals</b>		<b>361.88</b>	<b>92.23</b>	<b>9.22</b>	<b>237.95</b>	<b>60.64</b>	<b>6.06</b>	<b>118.97</b>	<b>30.32</b>	<b>3.03</b>

**Methodology**

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

**Abbreviations**

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

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

**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 =	5,256,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	4,993,200	tons/yr
Maximum Asphalt Cement/Binder Throughput =	262,800	tons/yr
Maximum No. 2 Fuel Oil Usage =	12,514,286	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per day (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.40	2.2E+05	8.8E+06	0	0.000	0.0
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.00	2.2E+05	3.8E+06	0	0.000	0.0
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.00	7.3E+03	3.5E+05	0	0.000	0.0
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	7.3E+03	8.8E+04	0	0.000	0.0
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.00	1.3E+03	5.8E+04	0	0.000	0.0
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	1.3E+03	1.6E+04	0	0.000	0.0
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.20	1.2E+06	2.3E+07	0	0.000	0.0
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.00	1.2E+06	1.8E+07	0	0.000	0.0
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.00	2.2E+05	9.0E+06	0	0.000	0.0
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.00	2.2E+05	3.7E+06	0	0.000	0.0
<b>Total</b>					<b>3.3E+06</b>	<b>6.6E+07</b>			<b>0.0E+00</b>

Average Vehicle Weight Per Trip =	20.3	tons/trip
Average Miles Per Trip =	0.000	miles/trip

Unmitigated Emission Factor,  $E_f = [k * (sL)^{0.91} * (W)^{1.02}]$  (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
W =	20.3	20.3	20.3	tons = average vehicle weight (provided by source)
sL =	0.6	0.6	0.6	g/m <sup>2</sup> = Ubiquitous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor,  $E_{ext} = E_f * [1 - (p/4N)]$

Mitigated Emission Factor, $E_{ext} =$	0.15	0.03	0.01	lb/mile
where p =	125	days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)		
N =	365	days per year		

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f =$	0.15	0.03	0.01	lb/mile
Mitigated Emission Factor, $E_{ext} =$	0.14	0.03	0.01	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00	0.000	0.0E+00	0.0E+00
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00	0.000	0.0E+00	0.0E+00
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aggregate/RAP Loader Full	Front-end loader (3 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Totals</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Methodology**

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

**Abbreviations**

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

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

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

Maximum Annual Asphalt Production = 5,256,000 tons/yr  
 Percent Asphalt Cement/Binder (weight %) = 5.0%  
 Maximum Asphalt Cement/Binder Throughput = 262,800 tons/yr

**Volatile Organic Compounds**

	Maximum weight % of VOC solvent in binder*	Weight % VOC solvent in binder that evaporates	Maximum VOC Solvent Usage (tons/yr)	PTE of VOC (tons/yr)
Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)	25.3%	95.0%	66,488.4	63,164.0
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	75,160.8	52,612.6
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	52,560.0	13,140.0
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	39,420.0	18,290.9
Other asphalt with solvent binder	25.9%	2.5%	68,065.2	1,701.6
<b>Worst Case PTE of VOC =</b>				<b>63,164.0</b>

**Hazardous Air Pollutants**

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0% Xylenes
<b>PTE of Total HAPs (tons/yr) =</b>	<b>16,475.50</b>
<b>PTE of Single HAP (tons/yr) =</b>	<b>5,684.76 Xylenes</b>

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

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

**Methodology**

Maximum Asphalt Cement/Binder Throughput = [Annual Asphalt Production Limitation (tons/yr)] \* [Percent Asphalt Cement/Binder (weight %)]  
 Maximum VOC Solvent Usage (tons/yr) = [Maximum Asphalt Cement/Binder Throughput (tons/yr)] \* [Maximum Weight % of VOC Solvent in Binder]  
 PTE of VOC (tons/yr) = [Weight % VOC solvent in binder that evaporates] \* [Maximum VOC Solvent Usage (tons/yr)]  
 PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] \* [Worst Case Limited PTE of VOC (tons/yr)]  
 PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] \* [Worst Case Limited PTE of VOC (tons/yr)]

\*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science.

**Abbreviations**

VOC = Volatile Organic Compounds  
 PTE = Potential to Emit

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Date:** 4/11/2016  
**Reviewer:** Tamara Havics

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

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

**Volatile Organic Compounds**

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

**Hazardous Air Pollutants**

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

**Methodology**

The gasoline throughput was provided by the source.

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

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

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

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

\*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science.

**Abbreviations**

VOC = Volatile Organic Compounds

PTE = Potential to Emit

**Appendix A.2: Limited Emissions Summary**  
**Entire Source - Drum Mix**

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96<sup>th</sup> Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

**Asphalt Plant Limitations - Drum Mix**

Maximum Hourly Asphalt Production =	600	ton/hr								
Annual Asphalt Production Limitation =	1,417,701	ton/yr								
Blast Furnace Slag Usage Limitation =	50,000	ton/yr	1.50	% sulfur						
Steel Slag Usage Limitation =	1,417,701		0.66	% sulfur						
Maximum Dryer Fuel Input Rate =	200	MMBtu/hr								
Natural Gas Limitation =	986	MMCF/yr								
No. 2 Fuel Oil Limitation =	2,017,272	gal/yr, and	0.50	% sulfur						
No. 4 Fuel Oil Limitation =	0	gal/yr, and	0	% sulfur						
Residual (No. 5 or No. 6) Fuel Oil Limitation =	0	gal/yr, and	0	% sulfur						
Propane Limitation =	0	gal/yr, and	0	gr/100 ft3 sulfur						
Butane Limitation =	0	gal/yr, and	0	gr/100 ft3 sulfur						
Used/Waste Oil Limitation =	1,299,105	gal/yr, and	0.75	% sulfur	1.02	% ash	0.20	% chlorine,	0.010	% lead
Diesel Fuel Limitation - Generator < 600 HP =	0	gal/yr, and								
Diesel Fuel Limitation - Generator > 600 HP =	0	gal/yr, and	0	% sulfur						
PM Dryer/Mixer Limitation =	0.260	lb/ton of asphalt production								
PM10 Dryer/Mixer Limitation =	0.106	lb/ton of asphalt production								
PM2.5 Dryer/Mixer Limitation =	0.119	lb/ton of asphalt production								
SO2 Dryer/Mixer Limitation =	0.058	lb/ton of asphalt production								
NOx Dryer/Mixer Limitation =	0.055	lb/ton of asphalt production								
VOC Dryer/Mixer Limitation =	0.032	lb/ton of asphalt production								
CO Dryer/Mixer Limitation =	0.130	lb/ton of asphalt production								
Blast Furnace Slag SO2 Dryer/Mixer Limitation =	0.740	lb/ton of slag processed								
Steel Slag SO2 Dryer/Mixer Limitation =	0.0014	lb/ton of slag processed								
Cold Mix Asphalt VOC Limitation =	46.83	tons/yr								
HCl Limitation =	13.2	lb/kgal								

**Limited/Controlled Emissions**

Process Description	Limited/Controlled Potential Emissions (tons/year)									
	Criteria Pollutants							Hazardous Air Pollutants		
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst Case HAP	
<b>Ducted Emissions</b>										
Dryer Fuel Combustion (worst case)	42.40	33.79	33.79	71.61	93.62	2.71	41.39	10.06	8.57	(hydrogen chloride)
Dryer/Mixer (Process)	184.11	75.14	84.34	41.11	38.99	22.68	92.15	7.56	2.20	(formaldehyde)
Dryer/Mixer Slag Processing	0	0	0	18.50	0	0	0	0	0	
Hot Oil Heater Fuel Combustion/Process (worst case)	0.14	0.23	0.23	4.89	1.38	0.05	0.81	0.02	0.017	(hexane)
Diesel-Fired Generator < 600 HP	0	0	0	0	0	0	0	0	0	
Diesel-Fired Generator > 600 HP	0	0	0	0	0	0	0	0	0	
Crusher Fuel Combustion *	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
<b>Worst Case Emissions**</b>	<b>184.25</b>	<b>75.37</b>	<b>84.57</b>	<b>95.00</b>	<b>95.00</b>	<b>22.74</b>	<b>92.96</b>	<b>10.08</b>	<b>8.57</b>	(hydrogen chloride)
<b>Fugitive Emissions</b>										
Asphalt Load-Out, Silo Filling, On-Site Yard	0.79	0.79	0.79	0	0	12.14	2.04	0.20	0.06	(formaldehyde)
Material Storage Piles	0.82	0.29	0.29	0	0	0	0	0	0	
Material Processing and Handling	4.58	2.17	0.33	0	0	0	0	0	0	
Material Crushing, Screening, and Conveying	22.49	8.22	8.22	0	0	0	0	0	0	
Unpaved and Paved Roads (worst case)	32.07	8.17	0.82	0	0	0	0	0	0	
Cold Mix Asphalt Production	0	0	0	0	0	46.83	0	12.21	4.21	(xylenes)
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0	0	0	0	
Volatile Organic Liquid Storage Vessels	0	0	0	0	0	negl	0	negl	negl	
<b>Total Fugitive Emissions</b>	<b>60.75</b>	<b>19.63</b>	<b>10.43</b>	<b>0</b>	<b>0</b>	<b>58.97</b>	<b>2.04</b>	<b>12.42</b>	<b>4.21</b>	(xylenes)
<b>Totals Limited/Controlled Emissions</b>	<b>245.00</b>	<b>95.00</b>	<b>95.00</b>	<b>95.00</b>	<b>95.00</b>	<b>81.71</b>	<b>95.00</b>	<b>22.50</b>	<b>8.57</b>	(hydrogen chloride)

negl = negligible

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

\* The crusher has been determined a nonroad vehicle under 40 CFR 60, and 40 CFR 63, therefore, emissions are not counted toward PSD and TV applicability.

\*\*Worst Case Emissions (tons/yr) = Worst Case Emissions from Dryer Fuel Combustion and Dryer/Mixer + Dryer/Mixer Slag Processing + Worst Case Emissions from Hot Oil Heater Fuel Combustion and Hot Oil Heating System + Diesel-Fired Generator < 600 HP + Diesel-Fired Generator > 600 HP

Fuel component percentages provided by the source.

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

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.

**Fuel Limitations**

Maximum Fuel Input Rate =	200	MMBtu/hr
Natural Gas Limitation =	986	MMCF/yr
No. 2 Fuel Oil Limitation =	2,017.272	gal/yr, and
No. 4 Fuel Oil Limitation =	0	gal/yr, and
Residual (No. 5 or No. 6) Fuel Oil Limitation =	0	gal/yr, and
Propane Limitation =	0	gal/yr, and
Butane Limitation =	0	gal/yr, and
Used/Waste Oil Limitation =	1,299.105	gal/yr, and
	0.50	% sulfur
	0	% sulfur
	0	% sulfur
	0	gr/100 ft3 sulfur
	0	gr/100 ft3 sulfur
	0.75	% sulfur
	1.02	% ash
	0.200	% chlorine,
	0.010	% lead

**Limited Emissions**

Criteria Pollutant	Emission Factor (units)								Limited Potential to Emit (tons/yr)							
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil* (lb/kgal)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/Waste Oil (tons/yr)	Worse Case Fuel (tons/yr)	
PM	1.9	2	7	3.22	0.5	0.6	65.28	0.94	2.02	0	0	0	0	42.40	42.40	
PM10/PM2.5	7.6	3.3	8.3	4.72	0.5	0.6	52.02	3.74	3.33	0	0	0	0	33.79	33.79	
SO2	0.6	71.0	0	0	0	0	110.3	0.30	71.61	0	0	0	0	71.61	71.61	
NOx	190	24.0	47.0	47.0	13.0	15.0	19.0	93.62	24.21	0	0	0	0	12.34	93.62	
VOC	5.5	0.20	0.20	0.28	1.00	1.10	1.0	2.71	0.20	0	0	0	0	0.65	2.71	
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	41.39	5.04	0	0	0	0	3.25	41.39	
<b>Hazardous Air Pollutant</b>																
HCl							13.2							8.57	8.57	
Antimony			5.25E-03	5.25E-03			negl			0	0			negl	0.0E+00	
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03			1.1E-01	9.9E-05	5.65E-04	0	0			7.15E-02	7.1E-02	
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05			negl	5.9E-06	4.24E-04	0	0			negl	4.2E-04	
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04			9.3E-03	5.4E-04	4.24E-04	0	0			6.04E-03	6.0E-03	
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04			2.0E-02	6.9E-04	4.24E-04	0	0			1.30E-02	1.3E-02	
Cobalt	8.4E-05		6.02E-03	6.02E-03			2.1E-04	4.1E-05		0	0			1.36E-04	1.4E-04	
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03			0.55	2.5E-04	1.27E-03	0	0			3.6E-01	0.36	
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03			6.8E-02	1.9E-04	8.47E-04	0	0			4.42E-02	0.04	
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04				1.3E-04	4.24E-04	0	0				4.2E-04	
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02			1.1E-02	1.0E-03	4.24E-04	0	0			7.15E-03	0.007	
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04			negl	1.2E-05	2.12E-03	0	0			negl	2.1E-03	
1,1,1-Trichloroethane			2.36E-04	2.36E-04						0	0				0.0E+00	
1,3-Butadiene															0.0E+00	
Acetaldehyde															0.0E+00	
Acrolein															0.0E+00	
Benzene	2.1E-03		2.14E-04	2.14E-04				1.0E-03		0	0				1.0E-03	
Bis(2-ethylhexyl)phthalate							2.2E-03							1.43E-03	1.4E-03	
Dichlorobenzene	1.2E-03						8.0E-07	5.9E-04						5.20E-07	5.9E-04	
Ethylbenzene			6.36E-05	6.36E-05						0	0				0.0E+00	
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				3.7E-02	6.15E-02	0	0				0.062	
Hexane	1.8E+00							0.89							0.887	
Phenol							2.4E-03							1.56E-03	1.6E-03	
Toluene	3.4E-03		6.20E-03	6.20E-03				1.7E-03		0	0				1.7E-03	
Total PAH Haps	negl		1.13E-03	1.13E-03			3.9E-02	negl		0	0			2.54E-02	2.5E-02	
Polycyclic Organic Matter		3.30E-03							3.33E-03						3.3E-03	
Xylene			1.09E-04	1.09E-04						0	0				0.0E+00	
<b>Total HAPs</b>								<b>0.93</b>	<b>0.07</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9.10</b>	<b>10.06</b>	

**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 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11
- Propane and Butane: AP-42 Chapter 1.5 (dated 7/08), Tables 1.5-1 (assuming PM = PM10)
- Waste Oil: AP-42 Chapter 1.11 (dated 10/96), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5

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

**Abbreviations**

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

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

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

Maximum Hourly Asphalt Production =	600	ton/hr
Annual Asphalt Production Limitation =	1,417,701	ton/yr
PM Dryer/Mixer Limitation =	0.260	lb/ton of asphalt production
PM10 Dryer/Mixer Limitation =	0.106	lb/ton of asphalt production
PM2.5 Dryer/Mixer Limitation =	0.119	lb/ton of asphalt production
CO Dryer/Mixer Limitation =	0.130	lb/ton of asphalt production
VOC Dryer/Mixer Limitation =	0.032	lb/ton of asphalt production

Criteria Pollutant	Emission Factor or Limitation (lb/ton)			Limited/Controlled Potential to Emit (tons/yr)			Worse Case PTE
	Drum-Mix Plant (dryer/mixer, controlled by fabric filter)			Drum-Mix Plant (dryer/mixer, controlled by fabric filter)			
	Natural Gas	No. 2 Fuel Oil	Waste Oil	Natural Gas	No. 2 Fuel Oil	Waste Oil	
PM*	0.260	0.260	0.260	184.1	184.1	184.1	<b>184.1</b>
PM10*	0.106	0.106	0.106	75.1	75.1	75.1	<b>75.1</b>
PM2.5*	0.119	0.119	0.119	84.3	84.3	84.3	<b>84.3</b>
SO2**	0.003	0.011	0.058	2.4	7.8	41.1	<b>41.1</b>
NOx**	0.026	0.055	0.055	18.4	39.0	39.0	<b>39.0</b>
VOC**	0.032	0.032	0.032	22.7	22.7	22.7	<b>22.7</b>
CO***	0.130	0.130	0.130	92.2	92.2	92.2	<b>92.2</b>
<b>Hazardous Air Pollutant</b>							
HCl			2.10E-04			0.15	<b>0.15</b>
Antimony	1.80E-07	1.80E-07	1.80E-07	1.28E-04	1.28E-04	1.28E-04	<b>1.28E-04</b>
Arsenic	5.60E-07	5.60E-07	5.60E-07	3.97E-04	3.97E-04	3.97E-04	<b>3.97E-04</b>
Beryllium	negl	negl	negl	negl	negl	negl	<b>0</b>
Cadmium	4.10E-07	4.10E-07	4.10E-07	2.91E-04	2.91E-04	2.91E-04	<b>2.91E-04</b>
Chromium	5.50E-06	5.50E-06	5.50E-06	3.90E-03	3.90E-03	3.90E-03	<b>3.90E-03</b>
Cobalt	2.60E-08	2.60E-08	2.60E-08	1.84E-05	1.84E-05	1.84E-05	<b>1.84E-05</b>
Lead	6.20E-07	1.50E-05	1.50E-05	4.39E-04	1.06E-02	1.06E-02	<b>1.06E-02</b>
Manganese	7.70E-06	7.70E-06	7.70E-06	5.46E-03	5.46E-03	5.46E-03	<b>5.46E-03</b>
Mercury	2.40E-07	2.60E-06	2.60E-06	1.70E-04	1.84E-03	1.84E-03	<b>1.84E-03</b>
Nickel	6.30E-05	6.30E-05	6.30E-05	4.47E-02	4.47E-02	4.47E-02	<b>0.04</b>
Selenium	3.50E-07	3.50E-07	3.50E-07	2.48E-04	2.48E-04	2.48E-04	<b>2.48E-04</b>
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	2.84E-02	2.84E-02	2.84E-02	<b>0.03</b>
Acetaldehyde			1.30E-03			0.92	<b>0.92</b>
Acrolein			2.60E-05			1.84E-02	<b>0.02</b>
Benzene	3.90E-04	3.90E-04	3.90E-04	0.28	0.28	0.28	<b>0.28</b>
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.17	0.17	0.17	<b>0.17</b>
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	2.20	2.20	2.20	<b>2.20</b>
Hexane	9.20E-04	9.20E-04	9.20E-04	0.65	0.65	0.65	<b>0.65</b>
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.03	0.03	0.03	<b>0.03</b>
MEK			2.00E-05			0.01	<b>0.01</b>
Propionaldehyde			1.30E-04			0.09	<b>0.09</b>
Quinone			1.60E-04			0.11	<b>0.11</b>
Toluene	1.50E-04	2.90E-03	2.90E-03	0.11	2.06	2.06	<b>2.06</b>
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.13	0.62	0.62	<b>0.62</b>
Xylene	2.00E-04	2.00E-04	2.00E-04	0.14	0.14	0.14	<b>0.14</b>
<b>Total HAPs</b>							<b>7.56</b>

**Worst Single HAP 2.197436812 (formaldehyde)**

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

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

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

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

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

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

**Abbreviations**

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

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

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

Limited Blast Furnace Slag Usage =	50,000	ton/yr	1.50	% sulfur
Limited Annual Steel Slag Usage =	1,417,701	ton/yr	0.66	% sulfur

Type of Slag	SO2 Emission Factor (lb/ton)	Limited Potential to Emit SO2 (tons/yr)
Blast Furnace Slag*	0.7400	18.50
Steel Slag**	0.0014	0.99

**Methodology**

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

\*\* Testing results for steel slag, obtained June 2009 from E & B Paving, Inc. facility located in Huntington, IN. The testing results showed a steel slag emission factor of 0.0007 lb/ton from slag containing 0.33% sulfur content.

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

**Abbreviations**

SO2 = Sulfur Dioxide

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

**Hot Oil Heater  
Fuel Combustion with Maximum Capacity < 100 MMBtu/hr**

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

Maximum Hot Oil Heater Fuel Input Rate = 2.20 MMBtu/hr  
 Natural Gas Usage = 19 MMCF/yr  
 No. 2 Fuel Oil Usage = 137,657 gal/yr, and 0.50 % sulfur

**Unlimited/Uncontrolled Emissions**

Criteria Pollutant	Emission Factor (units)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		Worse Case Fuel (tons/yr)
	Hot Oil Heater		Hot Oil Heater		
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	
PM	1.9	2.0	0.018	0.138	0.14
PM10/PM2.5	7.6	3.3	0.073	0.227	0.23
SO2	0.6	71.0	0.006	4.887	4.89
NOx	100	20.0	0.964	1.377	1.38
VOC	5.5	0.20	0.053	0.014	0.05
CO	84	5.0	0.809	0.344	0.81
<b>Hazardous Air Pollutant</b>					
Arsenic	2.0E-04	5.6E-04	1.9E-06	3.85E-05	3.9E-05
Beryllium	1.2E-05	4.2E-04	1.2E-07	2.89E-05	2.9E-05
Cadmium	1.1E-03	4.2E-04	1.1E-05	2.89E-05	2.9E-05
Chromium	1.4E-03	4.2E-04	1.3E-05	2.89E-05	2.9E-05
Cobalt	8.4E-05		8.1E-07		8.1E-07
Lead	5.0E-04	1.3E-03	4.8E-06	8.67E-05	8.7E-05
Manganese	3.8E-04	8.4E-04	3.7E-06	5.78E-05	5.8E-05
Mercury	2.6E-04	4.2E-04	2.5E-06	2.89E-05	2.9E-05
Nickel	2.1E-03	4.2E-04	2.0E-05	2.89E-05	2.9E-05
Selenium	2.4E-05	2.1E-03	2.3E-07	1.45E-04	1.4E-04
Benzene	2.1E-03		2.0E-05		2.0E-05
Dichlorobenzene	1.2E-03		1.2E-05		1.2E-05
Ethylbenzene					0
Formaldehyde	7.5E-02	6.10E-02	7.2E-04	4.20E-03	0.004
Hexane	1.8E+00		0.02		0.017
Phenol					0
Toluene	3.4E-03		3.3E-05		3.3E-05
Total PAH Haps	negl		negl		0
Polycyclic Organic Matter		3.30E-03		2.27E-04	2.3E-04

**Total HAPs = 1.8E-02 4.9E-03 0.022**  
**Worst Single HAP = 1.7E-02 4.2E-03 1.7E-02**  
 (Hexane) (Formaldehyde) (Hexane)

**Methodology**

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

Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4  
 No. 2 Fuel Oil: AP-42 Chapter 1.3 (dated 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11

**Abbreviations**

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

**Appendix A.2: Limited Emissions Summary  
Hot Oil Heating System - Process Emissions**

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

The following calculations determine the unlimited/uncontrolled emissions from the combustion of natural gas and No. 2 fuel oil in the hot oil heating system, which is used to heat a specially designed transfer oil. The hot transfer oil is then pumped through a piping system that passes through the asphalt cement storage tanks, in order to keep the asphalt cement at the correct temperature.

Maximum Fuel Input Rate To Hot Oil Heater =	2.20	MMBtu/hr
Natural Gas Usage =	19	MMCF/yr, and
No. 2 Fuel Oil Usage =	137,657	gal/yr

Criteria Pollutant	Emission Factors		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	Case	PTE
VOC	2.60E-08	2.65E-05	2.51E-04	0.002	<b>0.002</b>	
CO	8.90E-06	0.0012	0.086	0.083	<b>0.086</b>	
Hazardous Air Pollutant						
Formaldehyde	2.60E-08	3.50E-06	2.51E-04	2.41E-04	<b>2.51E-04</b>	
Acenaphthene		5.30E-07		3.65E-05	<b>3.65E-05</b>	
Acenaphthylene		2.00E-07		1.38E-05	<b>1.38E-05</b>	
Anthracene		1.80E-07		1.24E-05	<b>1.24E-05</b>	
Benzo(b)fluoranthene		1.00E-07		6.88E-06	<b>6.88E-06</b>	
Fluoranthene		4.40E-08		3.03E-06	<b>3.03E-06</b>	
Fluorene		3.20E-08		2.20E-06	<b>2.20E-06</b>	
Naphthalene		1.70E-05		1.17E-03	<b>1.17E-03</b>	
Phenanthrene		4.90E-06		3.37E-04	<b>3.37E-04</b>	
Pyrene		3.20E-08		2.20E-06	<b>2.20E-06</b>	
			<b>Total HAPs</b>		<b>1.83E-03</b>	
			<b>Worst Single HAP</b>		<b>1.17E-03</b>	

**Methodology**

Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 MMCF (Naphthalene)]  
 No. 2 Fuel Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.140 MMBtu]  
 Natural Gas: Potential to Emit (tons/yr) = (Natural Gas Usage (MMCF/yr))\*(Emission Factor (lb/CF))\*(1000000 CF/MMCF)\*(ton/2000 lbs)  
 No. 2 Fuel Oil: Potential to Emit (tons/yr) = (No. 2 Fuel Oil Usage (gals/yr))\*(Emission Factor (lb/gal))\*(ton/2000 lbs)  
 1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu  
 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.2: Limited Emissions Summary**  
**Reciprocating Internal Combustion Engines - Diesel Fuel**  
**Output Rating (<=600 HP)**

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

Output Horsepower Rating (hp)	0
Limited Hours Operated per Year	0
Limited Throughput (hp-hr/yr)	0
Limited Diesel Fuel Usage (gal/yr)	0

	Pollutant						
	PM <sup>2</sup>	PM10 <sup>2</sup>	direct PM2.5 <sup>2</sup>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Emission Factor in lb/kgal <sup>1</sup>	43.07	43.07	43.07	40.13	606.85	49.22	130.77
Limited Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

<sup>1</sup>The AP-42 Chapter 3.3-1 emission factors in lb/hp-hr were converted to lb/kgal emission factors using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

<sup>1</sup>Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) \* 1/7,000 (hp-hr/Btu) \* 19,300 (Btu/lb) \* 7.1 (lb/gal) \* 1,000 (gal/kgal)

<sup>2</sup>PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

**Hazardous Air Pollutants (HAPs)**

	Pollutant							Total PAH HAPs <sup>3</sup>
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	
Emission Factor in lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	3.91E-05	1.18E-03	7.67E-04	9.25E-05	1.68E-04
Emission Factor in lb/kgal <sup>4</sup>	1.28E-01	5.60E-02	3.91E-02	5.36E-03	1.62E-01	1.05E-01	1.27E-02	2.30E-02
Limited Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

<sup>3</sup>PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

<sup>4</sup>The AP-42 Chapter 3.3-1 emission factors in lb/MMBtu were converted to lb/kgal emission factors using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

<sup>4</sup>Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) \* 1/10<sup>6</sup> (MMBtu/Btu) \* 19,300 (Btu/lb) \* 7.1 (lb/gal) \* 1,000 (gal/kgal)

<b>Limited Emission of Total HAPs (tons/yr)</b>	<b>0.00E+00</b>
<b>Limited Emission of Worst Case HAPs (tons/yr)</b>	<b>0.00E+00</b>

**Appendix A.2: Limited Emissions Summary**  
**Large Reciprocating Internal Combustion Engines - Diesel Fuel**  
**Output Rating (>600 HP)**

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

Output Horsepower Rating (hp)	0	Sulfur Content (S) of Fuel (% by weight)	0
Limited Hours Operated per Year	0		
Limited Throughput (hp-hr/yr)	0		
Limited Diesel Fuel Usage (gal/yr)	0		

	Pollutant						
	PM	PM10 <sup>2</sup>	direct PM2.5 <sup>2</sup>	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04			0.00E+00 (.00809S)	2.40E-02	7.05E-04	5.50E-03
Emission Factor in lb/MMBtu		0.0573	0.0573				
Emission Factor in lb/kgal <sup>1</sup>	13.70	7.85	7.85	0.00	469.82	13.80	107.67
Limited Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

<sup>1</sup>The AP-42 Chapter 3.4-1 emission factors in lb/hp-hr were converted to lb/kgal emission factors using an average brake specific fuel consumption of 7,000 Btu / hp-hr, diesel heating value of 19,300 Btu / lb, and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

<sup>1</sup>Emission factor (lb/kgal) = AP-42 EF (lb/hp-hr) \* 1/7,000 (hp-hr/Btu) \* 19,300 (Btu/lb) \* 7.1 (lb/gal) \* 1,000 (gal/kgal)

<sup>2</sup>Emission factors in lb/kgal were converted from the AP-42 Chapter 3.4-1 emission factors in lb/MMBtu using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

<sup>2</sup>Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) \* 1/10<sup>6</sup> (MMBtu/Btu) \* 19,300 (Btu/lb) \* 7.1 (lb/gal) \* 1,000 (gal/kgal)

**Hazardous Air Pollutants (HAPs)**

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs <sup>3</sup>
Emission Factor in lb/MMBtu	7.76E-04	2.81E-04	1.93E-04	7.89E-05	2.52E-05	7.88E-06	2.12E-04
Emission Factor in lb/kgal <sup>4</sup>	1.06E-01	3.85E-02	2.64E-02	1.08E-02	3.45E-03	1.08E-03	2.91E-02
Limited Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

<sup>3</sup>PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

<sup>4</sup>Emission factors in lb/kgal were converted from the AP-42 Chapter 3.4-1 emission factors in lb/MMBtu using an average diesel heating value of 19,300 Btu / lb and diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1) since the source will limit the emissions from this unit by limiting the fuel usage.

<sup>4</sup>Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) \* 1/10<sup>6</sup> (MMBtu/Btu) \* 19,300 (Btu/lb) \* 7.1 (lb/gal) \* 1,000 (gal/kgal)

<b>Limited Emission of Total HAPs (tons/yr)</b>	<b>0.00E+00</b>
<b>Limited Emission of Worst Case HAPs (tons/yr)</b>	<b>0.00E+00</b>

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

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

Asphalt Temperature, T =	325	F
Asphalt Volatility Factor, V =	-0.5	
Annual Asphalt Production Limitation =	1,417,701	tons/yr

Pollutant	Emission Factor (lb/ton asphalt)			Limited Potential to Emit (tons/yr)			
	Load-Out	Silo Filling	On-Site Yard	Load-Out	Silo Filling	On-Site Yard	Total
Total PM*	5.2E-04	5.9E-04	NA	0.37	0.42	NA	0.79
Organic PM	3.4E-04	2.5E-04	NA	0.24	0.180	NA	0.42
TOC	0.004	0.012	0.001	2.95	8.64	0.780	12.4
CO	0.001	0.001	3.5E-04	0.96	0.836	0.250	2.04

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

<b>PM/HAPs</b>	<b>0.017</b>	<b>0.021</b>	<b>0</b>	<b>0.038</b>
<b>VOC/HAPs</b>	<b>0.044</b>	<b>0.110</b>	<b>0.012</b>	<b>0.165</b>
<b>non-VOC/HAPs</b>	<b>2.3E-04</b>	<b>2.3E-05</b>	<b>6.0E-05</b>	<b>3.1E-04</b>
<b>non-VOC/non-HAPs</b>	<b>0.21</b>	<b>0.12</b>	<b>0.06</b>	<b>0.39</b>

<b>Total VOCs</b>	<b>2.77</b>	<b>8.64</b>	<b>0.7</b>	<b>12.1</b>
<b>Total HAPs</b>	<b>0.06</b>	<b>0.13</b>	<b>0.012</b>	<b>0.20</b>
	<b>Worst Single HAP</b>			<b>0.063</b>
				<b>(formaldehyde)</b>

**Methodology**

The asphalt temperature and volatility factor were provided by the source.

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

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-14, 11.1-15, and 11.1-16

Plant Load-Out Emission Factor Equations (AP-42 Table 11.1-14)::

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

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

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

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

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

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

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

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

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

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

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

**Abbreviations**

TOC = Total Organic Compounds

CO = Carbon Monoxide

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

**Organic Particulate-Based Compounds (Table 11.1-15)**

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Limited Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of Total Organic PM)	Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)	Load-out	Silo Filling	Onsite Yard	Total
<b>PAH HAPs</b>										
Acenaphthene	83-32-9	PM/HAP	POM	Organic PM	0.26%	0.47%	6.3E-04	8.5E-04	NA	1.5E-03
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	0.014%	6.8E-05	2.5E-05	NA	9.3E-05
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	0.13%	1.7E-04	2.3E-04	NA	4.0E-04
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	0.056%	4.6E-05	1.0E-04	NA	1.5E-04
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	0	1.8E-05	0	NA	1.8E-05
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	0	5.3E-06	0	NA	5.3E-06
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	0	4.6E-06	0	NA	4.6E-06
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	0	5.6E-06	0	NA	5.6E-06
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	0.0095%	1.9E-05	1.7E-05	NA	3.6E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	0.21%	2.5E-04	3.8E-04	NA	6.3E-04
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	0	8.9E-07	0	NA	8.9E-07
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	0.15%	1.2E-04	2.7E-04	NA	3.9E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.01%	1.9E-03	1.8E-03	NA	3.7E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	0	1.1E-06	0	NA	1.1E-06
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	5.27%	5.8E-03	9.5E-03	NA	0.015
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	1.82%	3.0E-03	3.3E-03	NA	6.3E-03
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	0.03%	5.3E-05	5.4E-05	NA	1.1E-04
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.80%	2.0E-03	3.2E-03	NA	5.2E-03
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	0.44%	3.6E-04	7.9E-04	NA	1.2E-03
<b>Total PAH HAPs</b>							<b>0.014</b>	<b>0.021</b>	<b>NA</b>	<b>0.035</b>
<b>Other semi-volatile HAPs</b>										
Phenol		PM/HAP	---	Organic PM	1.18%	0	2.9E-03	0	0	2.9E-03

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

**Methodology**

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

**Abbreviations**

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

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

**Organic Volatile-Based Compounds (Table 11.1-16)**

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Limited Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of TOC)	Silo Filling and Asphalt Storage Tank (% by weight of TOC)	Load-out	Silo Filling	Onsite Yard	Total
<b>VOC</b>		VOC	---	TOC	94%	100%	<b>2.77</b>	<b>8.64</b>	<b>0.73</b>	<b>12.14</b>
non-VOC/non-HAPS										
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	0.26%	1.9E-01	2.2E-02	5.1E-02	0.265
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	0.055%	1.4E-03	4.8E-03	3.6E-04	0.006
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.10%	2.1E-02	9.5E-02	5.5E-03	0.121
<b>Total non-VOC/non-HAPS</b>					<b>7.30%</b>	<b>1.40%</b>	<b>0.215</b>	<b>0.121</b>	<b>0.057</b>	<b>0.39</b>
Volatile organic HAPs										
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	0.032%	1.5E-03	2.8E-03	4.1E-04	4.7E-03
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	0.0049%	2.8E-04	4.2E-04	7.5E-05	7.8E-04
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	0.039%	1.4E-03	3.4E-03	3.8E-04	5.2E-03
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	0.016%	3.8E-04	1.4E-03	1.0E-04	1.9E-03
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	0.004%	6.2E-06	3.5E-04	1.6E-06	3.5E-04
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	0.023%	4.4E-04	2.0E-03	1.2E-04	2.5E-03
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	0	3.2E-03	0	8.6E-04	4.1E-03
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	0.038%	8.3E-03	3.3E-03	2.2E-03	0.014
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	0.69%	2.6E-03	6.0E-02	6.9E-04	0.063
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	0.10%	4.4E-03	8.6E-03	1.2E-03	0.014
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	0.00031%	5.3E-05	2.7E-05	1.4E-05	9.4E-05
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0.00027%	0	2.3E-05	0	2.3E-05
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	0.0054%	2.2E-04	4.7E-04	5.7E-05	7.4E-04
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	0	2.3E-04	0	6.0E-05	2.9E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	0.062%	6.2E-03	5.4E-03	1.6E-03	0.013
1,1,1-Trichloroethane	71-55-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichloroethene	79-01-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	VOC/HAP	---	TOC	0.0013%	0	3.8E-05	0	1.0E-05	4.8E-05
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	0.20%	1.2E-02	1.7E-02	3.2E-03	0.033
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	0.057%	2.4E-03	4.9E-03	6.2E-04	7.9E-03
<b>Total volatile organic HAPs</b>					<b>1.50%</b>	<b>1.30%</b>	<b>0.044</b>	<b>0.112</b>	<b>0.012</b>	<b>0.168</b>

**Methodology**

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

**Abbreviations**

TOC = Total Organic Compounds  
HAP = Hazardous Air Pollutant  
VOC = Volatile Organic Compound  
MTBE = Methyl tert butyl ether

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

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

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

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

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/PM2.5 (tons/yr)
Sand	2.6	3.01	0.18	0.099	0.035
Limestone	1.6	1.85	0.97	0.328	0.115
RAP	0.5	0.58	0.33	0.035	0.012
Gravel	1.6	1.85	0	0.000	0.000
Shingles	0.5	0.58	0.40	0.042	0.015
Slag	3.8	4.40	0.40	0.321	0.112
<b>Totals</b>				<b>0.82</b>	<b>0.29</b>

**Methodology**

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

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

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

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

PM2.5 = PM10

**Abbreviations**

RAP = recycled asphalt pavement

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

PTE = Potential to Emit

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

**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.

$E_f = k \cdot (0.0032)^{0.74} \cdot (U/5)^{1.3} / (M/2)^{1.4}$   
 where:  $E_f$  = Emission factor (lb/ton)  
 k (PM) = 0.74 = particle size multiplier (0.74 assumed for aerodynamic diameter <=100 um)  
 k (PM10) = 0.35 = particle size multiplier (0.35 assumed for aerodynamic diameter <=10 um)  
 k (PM2.5) = 0.053 = particle size multiplier (0.053 assumed for aerodynamic diameter <=2.5 um)  
 U = 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)  
 Ef (PM) = 2.27E-03 lb PM/ton of material handled  
 Ef (PM10) = 1.07E-03 lb PM10/ton of material handled  
 Ef (PM2.5) = 1.62E-04 lb PM2.5/ton of material handled

Annual Asphalt Production Limitation = 1,417,701 tons/yr  
 Percent Asphalt Cement/Binder (weight %) = 5.0%  
 Maximum Material Handling Throughput = 1,346,816 tons/yr

Type of Activity	Limited PTE of PM (tons/yr)	Limited PTE of PM10 (tons/yr)	Limited PTE of PM2.5 (tons/yr)
Truck unloading of materials into storage piles	1.53	0.72	0.11
Front-end loader dumping of materials into feeder bins	1.53	0.72	0.11
Conveyor dropping material into dryer/mixer or batch tower	1.53	0.72	0.11
<b>Total (tons/yr)</b>	<b>4.58</b>	<b>2.17</b>	<b>0.33</b>

**Methodology**

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

**Material Screening and Conveying (AP-42 Section 19.2.2)**

To estimate potential fugitive dust emissions from raw material crushing, screening, and conveying, AP-42 emission factors for Crushed Stone Processing Operations, Section 19.2.2 (dated 8/04) are utilized.

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Limited PTE of PM (tons/yr)	Limited PTE of PM10/PM2.5 (tons/yr)**
Crushing	0.0054	0.0024	3.64	1.62
Screening	0.025	0.0087	16.84	5.86
Conveying	0.003	0.0011	2.02	0.74
<b>Limited Potential to Emit (tons/yr) =</b>			<b>22.49</b>	<b>8.22</b>

**Methodology**

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

**Abbreviations**

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

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

**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 = 1,417,701 tons/yr  
 Percent Asphalt Cement/Binder (weight %) = 5.0%  
 Maximum Material Handling Throughput = 1,346,816 tons/yr  
 Maximum Asphalt Cement/Binder Throughput = 70,885 tons/yr  
 No. 2 Fuel Oil Limitation = 2,017,272 gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.4	6.0E+04	2.4E+06	300	0.057	3,416.2
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.0	6.0E+04	1.0E+06	300	0.057	3,416.2
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	2.0E+03	9.5E+04	300	0.057	111.9
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	2.0E+03	2.4E+04	300	0.057	111.9
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.0	2.1E+02	9.4E+03	300	0.057	12.1
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	2.1E+02	2.6E+03	300	0.057	12.1
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.2	3.2E+05	6.2E+06	150	0.028	9,110.0
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	3.2E+05	4.8E+06	150	0.028	9,110.0
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.0	5.9E+04	2.4E+06	300	0.057	3,356.3
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.0	5.9E+04	1.0E+06	300	0.057	3,356.3
<b>Total</b>					<b>8.8E+05</b>	<b>1.8E+07</b>			<b>3.2E+04</b>

Average Vehicle Weight Per Trip = 20.3 tons/trip  
 Average Miles Per Trip = 0.036 miles/trip

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

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

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

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

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	10.41	2.65	0.27	6.85	1.74	0.17	3.42	0.87	0.09
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	10.41	2.65	0.27	6.85	1.74	0.17	3.42	0.87	0.09
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.341	0.087	0.01	0.224	0.057	5.7E-03	0.112	0.029	2.9E-03
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.341	0.087	0.01	0.224	0.057	5.7E-03	0.112	0.029	2.9E-03
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.037	0.009	9.4E-04	0.024	0.006	6.2E-04	0.012	0.003	3.1E-04
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.037	0.009	9.4E-04	0.024	0.006	6.2E-04	0.012	0.003	3.1E-04
Aggregate/RAP Loader Full	Front-end loader (3 CY)	27.76	7.08	0.71	18.25	4.65	0.47	9.13	2.33	0.23
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	27.76	7.08	0.71	18.25	4.65	0.47	9.13	2.33	0.23
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	10.23	2.61	0.26	6.73	1.71	0.17	3.36	0.86	0.09
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	10.23	2.61	0.26	6.73	1.71	0.17	3.36	0.86	0.09
<b>Totals</b>		<b>97.55</b>	<b>24.86</b>	<b>2.49</b>	<b>64.14</b>	<b>16.35</b>	<b>1.63</b>	<b>32.07</b>	<b>8.17</b>	<b>0.82</b>

**Methodology**

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

**Abbreviations**

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

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

**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 =	1,417,701	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	1,346,816	tons/yr
Maximum Asphalt Cement/Binder Throughput =	70,885	tons/yr
No. 2 Fuel Oil Limitation =	2,017,272	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per day (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.40	6.0E+04	2.4E+06	0	0.000	0.0
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.00	6.0E+04	1.0E+06	0	0.000	0.0
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.00	2.0E+03	9.5E+04	0	0.000	0.0
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	2.0E+03	2.4E+04	0	0.000	0.0
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.00	2.1E+02	9.4E+03	0	0.000	0.0
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	2.1E+02	2.6E+03	0	0.000	0.0
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.20	3.2E+05	6.2E+06	0	0.000	0.0
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.00	3.2E+05	4.8E+06	0	0.000	0.0
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.00	5.9E+04	2.4E+06	0	0.000	0.0
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.00	5.9E+04	1.0E+06	0	0.000	0.0
<b>Total</b>					<b>8.8E+05</b>	<b>1.8E+07</b>			<b>0.0E+00</b>

Average Vehicle Weight Per Trip =	20.3	tons/trip
Average Miles Per Trip =	0.000	miles/trip

Unmitigated Emission Factor,  $E_f = [k * (sL)^{0.91} * (W)^{1.02}]$  (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
W =	20.3	20.3	20.3	tons = average vehicle weight (provided by source)
sL =	0.6	0.6	0.6	g/m <sup>2</sup> = Ubiquitous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor,  $E_{ext} = E_f * [1 - (p/4N)]$

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	PM2.5	
Unmitigated Emission Factor, $E_f =$	0.15	0.03	0.01	lb/mile
Mitigated Emission Factor, $E_{ext} =$	0.14	0.03	0.01	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00	0.000	0.0E+00	0.0E+00
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.000	0.000	0.0E+00	0.000	0.000	0.0E+00	0.000	0.0E+00	0.0E+00
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aggregate/RAP Loader Full	Front-end loader (3 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Totals</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Methodology**

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

**Abbreviations**

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

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

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

Limited VOC Emissions from the Sum of the Liquid Binders =  tons/yr

**Volatile Organic Compounds**

	Maximum weight % of VOC solvent in binder	Weight % VOC solvent in binder that evaporates	VOC Solvent Usage Limitation (tons/yr)	Limited PTE of VOC (tons/yr)	Liquid Binder Adjustment Ratio
Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)	25.3%	95.0%	49.29	46.83	1.053
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	66.90	46.83	1.429
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	187.32	46.83	4.000
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	100.93	46.83	2.155
Other asphalt with solvent binder	25.9%	2.5%	1,873.20	46.83	40.0
<b>Worst Case Limited PTE of VOC =</b>				<b>46.83</b>	

**Hazardous Air Pollutants**

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0% Xylenes
<b>Limited PTE of Total HAPs (tons/yr) =</b>	<b>12.21</b>
<b>Limited PTE of Single HAP (tons/yr) =</b>	<b>4.21 Xylenes</b>

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

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

**Methodology**

Limited PTE of VOC (tons/yr) = [Weight % VOC solvent in binder that evaporates] \* [VOC Solvent Usage Limitation (tons/yr)]  
 Limited PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] \* [Worst Case Limited PTE of VOC (tons/yr)]  
 Limited PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] \* [Worst Case Limited PTE of VOC (tons/yr)]

\*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science.

**Abbreviations**

VOC = Volatile Organic Compounds  
 PTE = Potential to Emit

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

**Company Name:** Milestone Contractors, L.P.  
**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** F057-36556-03289  
**Reviewer:** Tamara Havics

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

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

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

**Volatile Organic Compounds**

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

**Hazardous Air Pollutants**

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

**Methodology**

The gasoline throughput was provided by the source.

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

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

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

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

\*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science.

**Abbreviations**

VOC = Volatile Organic Compounds

PTE = Potential to Emit



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

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**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

May 9, 2016

Mr. Robert J. Beyke  
Milestone Contractors, L.P.  
5950 South Belmont Avenue  
Indianapolis, IN 46217

Re: Public Notice  
Milestone Contractors, L.P.  
Permit Level: Federally Enforceable State  
Operating Permit (FESOP) Renewal  
Permit Number: 057-36556-03289

Dear Mr. Beyke:

Enclosed is a copy of your draft Federally Enforceable State Operating Permit (FESOP) Renewal, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that The Times in Noblesville, Indiana publish the abbreviated version of the public notice no later than May 11, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Carmel Clay Public Library, 55 4<sup>th</sup> Avenue SE, in Carmel, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Tamara Havics, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 2-8219 or dial (317) 232-8219.

Sincerely,

*Vivian Haun*

Vivian Haun  
Permits Branch  
Office of Air Quality

Enclosures  
PN Applicant Cover letter 2/17/2016



# Indiana Department of Environmental Management

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**Michael R. Pence**  
Governor

**Carol S. Comer**  
Commissioner

## **ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING**

May 5, 2016

The Times  
641 Westfield Road  
Noblesville, IN 46060

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Milestone Contractors, L.P., Hamilton County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than May 11, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

**To ensure proper payment, please reference account # 100174737.**

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Vivian Haun at 800-451-6027 and ask for extension 3-6878 or dial 317-233-6878.

Sincerely,

*Vivian Haun*

Vivian Haun  
Permit Branch  
Office of Air Quality

Permit Level: Federally Enforceable State Operating Permit (FESOP) Renewal  
Permit Number: 057-36556-03289

Enclosure  
PN Newspaper.dot 6/13/2013



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

**Michael R. Pence**  
*Governor*

**Carol S. Comer**  
*Commissioner*

May 9, 2016

To: Carmel Clay Public Library

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

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

**Applicant Name: Milestone Contractors, L.P.**  
**Permit Number: 057-36556-03289**

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures  
PN Library.dot 2/16/2016



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## Notice of Public Comment

**May 9, 2016**  
**Milestone Contractors, L.P.**  
**057-36556-03289**

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

**Please Note:** *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at [PPEAR@IDEM.IN.GOV](mailto:PPEAR@IDEM.IN.GOV). If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure  
PN AAA Cover.dot 2/17/2016

# Mail Code 61-53

IDEM Staff	VHAUN 5/9/2016 Milestone Contractors, L.P. 057-36556-03289 DRAFT		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	 Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Robert J Beyke Milestone Contractors, L.P. 5950 S Belmont Ave Indianapolis IN 46217 (Source CAATS)										
2		Jim Gross VP - Asphalt Plants Milestone Contractors, L.P. 5950 S Belmont Ave Indianapolis IN 46217 (RO CAATS)										
3		Carmel Clay Public Library 55 4th Avenue Carmel IN 46032-2297 (Library)										
4		Hamilton County Health Department 18030 Foundation Dr. #A Noblesville IN 46060-5405 (Health Department)										
5		Indianapolis City Council and Mayors office 200 East Washington Street, Room E Indianapolis IN 46204 (Local Official)										
6		Hamilton County Board of Commissioners One Hamilton County Square, Suite 157 Noblesville IN 46064 (Local Official)										
7		Environmental Field Services, Inc. 40 SR 32 W Westfield IN 46074 (Affected Party)										
8		Soil Stabilization, Inc. 15530 Stoney Creek Way Noblesville IN 46060 (Affected Party)										
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<b>8</b>			