NOTICE OF 30-DAY PERIOD
FOR PUBLIC COMMENT

Preliminary Findings Regarding a
Significant Revision to a
Federally Enforceable State Operating Permit (FESOP)

for Milestone Contractors, L.P. in Hamilton County
Significant Permit Revision No.: 057-43578-03289

The Indiana Department of Environmental Management (IDEM) has received an application from Milestone Contractors, L.P., located at 5160 East 96th Street, Indianapolis, IN 46240, for a significant revision of its FESOP Renewal issued on June 17th, 2016. If approved by IDEM’s Office of Air Quality (OAQ), this proposed revision would allow Milestone Contractors, L.P. to make certain changes at its existing source. Milestone Contractors, L.P. has applied to add and remove emission units from the source.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, 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). The potential to emit regulated air pollutants will continue to be limited to less than the Title V and PSD major threshold levels. IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM’s preliminary findings have been sent to:

Carmel Clay Public Library
55 4th Ave. SE
Carmel, IN 46032

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

A copy of the application and preliminary findings is also available via IDEM’s Virtual File Cabinet (VFC). To access VFC, please go to: http://www.in.gov/idem/ and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.

How can you participate in this process?

The date that this notice is posted on IDEM’s website (https://www.in.gov/idem/5474.htm) marks the beginning of a 30-day public comment period. If the 30th 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 SPR 057-43578-
03289 in all correspondence.

Comments should be sent to:

Shelby O'Neal
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for Shelby O'Neal or (317) 233-8578
Or dial directly: (317) 233-8578
Fax: (317) 232-6749 attn: Shelby O'Neal
E-mail: SOneal@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 Air Permits page on the Internet at: https://www.in.gov/idem/airpermit/2358.htm; and the

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 and will also be sent to the local library indicated above, and the
IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue,
Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Shelby O'Neal of my staff at the above address.

Heath Hartley, Section Chief
Permits Branch
Office of Air Quality
Mr. Robert J. Beyke  
Milestone Contractors, L.P.  
P.O. Box 421459  
Indianapolis, IN 46242

Re: 057-43578-03289  
Significant Permit Revision to  
FESOP Renewal No. F057-36556-03289

Dear Robert J. Beyke:

Milestone Contractors, L.P. was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F057-36556-03289 on June 17, 2016, for 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. This source is located at 5160 East 96th Street, Indianapolis, IN 46240. On December 14, 2020, the Office of Air Quality (OAQ) received an application from the source requesting remove liquid asphalt tanks, storage silos, and install new liquid asphalt storage tanks and storage silos. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(f). Pursuant to the provisions of 326 IAC 2-8-11.1, a Significant Permit Revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

Pursuant to 326 IAC 2-8-11.1, the following emission units are approved for construction at the source:

(a) four (4) final product hot-mix asphalt storage silos, approved in 2021 for construction, each with a maximum storage capacity of 300 tons;

The following construction conditions are applicable to the proposed project:

General Construction Conditions
1. The data and information supplied with the application shall be considered part of this permit revision approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

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

Effective Date of the Permit
3. Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

Commenced Construction
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the Significant Permit Revision into the permit.

All other conditions of the permit shall remain unchanged and in effect. The permit references the below listed attachment(s). Since these attachments have been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of these attachments with this amendment:

Attachment A: Fugitive Dust Control Plan
Attachment B: 40 CFR 60, Subpart I, NSPS for Hot Mix Asphalt Facilities
Attachment C: 40 CFR 60, Subpart OOO, NSPS for Nonmetallic Mineral Processing Plants

Previously issued approvals for this source containing these attachments are available on the Internet at: [http://www.in.gov/ai/appfiles/idem-caats/](http://www.in.gov/ai/appfiles/idem-caats/).

Previously issued approvals for this source are also available via IDEM’s Virtual File Cabinet (VFC). To access VFC, please go to: [http://www.in.gov/idem/](http://www.in.gov/idem/) and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.


A copy of the permit is available on the Internet at: [http://www.in.gov/ai/appfiles/idem-caats/](http://www.in.gov/ai/appfiles/idem-caats/). A copy of the application and permit is also available via IDEM’s Virtual File Cabinet (VFC). To access VFC, please go to: [http://www.in.gov/idem/](http://www.in.gov/idem/) and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: [http://www.in.gov/idem/airquality/2356.htm](http://www.in.gov/idem/airquality/2356.htm); and the Citizens’ Guide to IDEM on the Internet at: [http://www.in.gov/idem/6900.htm](http://www.in.gov/idem/6900.htm).

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

If you have any questions regarding this matter, please contact Shelby O’Neal, 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) 233-8578 or (800) 451-6027, and ask for Shelby O’Neal or (317) 233-8578.

Sincerely,

Heath Hartley, Section Chief
Permits Branch
Office of Air Quality

Attachment(s): Updated Permit

cc: File - Hamilton County
Hamilton County Health Department
U.S. EPA, Region 5
Compliance and Enforcement Branch
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.

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<td>Permits Branch</td>
<td>Office of Air Quality</td>
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Administrative Amendment No.: 057-42259-03289, issued January 10, 2020
Administrative Amendment No.: 057-42934-03289, issued August 4, 2020

Significant Permit Revision No.: 057-43578-03289

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<td>Section Chief, Permits Branch</td>
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CERTIFICATION

EMERGENCY OCCURRENCE REPORT

FESOP Quarterly Report

FESOP Quarterly Report

FESOP Quarterly Report

FESOP Quarterly Report

QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Attachment A: Fugitive Dust Plan

Attachment B: 40 CFR 60, Subpart I, New Source Performance Standards for Hot Mix Asphalt Facilities

Attachment C: 40 CFR 60, Subpart OOO, New Source Performance Standards for Nonmetallic Mineral Processing Plants
SECTION A  SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary 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)]

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 eleven (11) compartments with a total aggregate holding capacity of 550 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 maximum anticipated pile size of 3.0 acres;
   (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) final product hot-mix asphalt storage silos each with a maximum storage capacity of 300 tons;

(g) Four (4) final product hot-mix asphalt storage silos, approved in 2021 for construction, each with a maximum storage capacity of 300 tons;

(h) four (4) storage silos each with a maximum storage capacity of 200 tons.

Note: After the four (4) new final 300 ton product hot-mix asphalt storage silos are constructed, they will replace the four (4) existing 200 ton silos. No more than seven (7) silos will be in operation at the same time.

(i) one (1) dust storage silo with a maximum capacity of 650 barrels;

(j) 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.

(k) One (1) diesel fuel-fired portable crusher/screener, not to exceed 500 horsepower, processing reclaimed asphalt pavement (RAP), with a maximum throughput not to exceed 500 tons of RAP per hour. Additional RAP crusher/screeners may be located at the source for storage and maintenance only. Only one (1) crusher/screener can be operable at any one time. Only one (1) of the following units may be used:

(1) One (1) 475 horsepower, diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 475 tons of RAP per hour.

(2) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 150 tons of RAP per hour.

(3) One (1) 100 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 125 tons of RAP per hour.

(4) One (1) 300 horsepower diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), approved in 2020 for construction, with a maximum capacity of 400 tons of RAP per hour.

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.

(l) 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)(l)]

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) four (4) liquid asphalt storage tanks, identified as Tanks AST-1 through AST-4, each with a maximum storage capacity of 35,000 gallons, with emissions exhausted to Stacks DV-3, DV-5, DV-6, and DV-8, respectively.

(c) one liquid asphalt calibration tank, identified as Tank 17.

(d) 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;

(e) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(f) application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;

(g) 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 (100ºF) or; having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20ºC (68º); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months;

(h) combustion source flame safety purging on startup;

(i) closed loop heating and cooling systems;

(j) a laboratory as defined in 326 IAC 2-7-1(21)(D); and

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

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]
(a) This permit, 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]
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]
Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-8-4(4)]
The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]
This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]
(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]
(a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

Indiana Department of Environmental Management
Compliance 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)]

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).

The Permittee shall implement the PMPs.

(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]

(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)]

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]

(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)]

(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:
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 317-233-8590 (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]
The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2][326 IAC 9-1-2]
The Permittee shall not operate an incinerator 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]
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]
The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]
(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

(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]

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]

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]

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

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 eleven (11) compartments with a total aggregate holding capacity of 550 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 maximum anticipated pile size of 3.0 acres;

   (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) final product hot-mix asphalt storage silos each with a maximum storage capacity of 300 tons;

(g) Four (4) final product hot-mix asphalt storage silos, approved in 2021 for construction, each with a maximum storage capacity of 300 tons;

(h) four (4) storage silos each with a maximum storage capacity of 200 tons.

Note: After the four (4) new final 300 ton product hot-mix asphalt storage silos are constructed, they will replace the four (4) existing 200 ton silos. No more than seven (7) silos will be in operation at the same time.

(i) one (1) dust storage silo with a maximum capacity of 650 barrels;

(j) 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.

(k) One (1) diesel fuel-fired portable crusher/screener, not to exceed 500 horsepower, processing reclaimed asphalt pavement (RAP), with a maximum throughput not to exceed 500 tons of RAP per hour. Additional RAP crusher/screeners may be located at the source for storage and
maintenance only. Only one (1) crusher/screener can be operable at any one time. Only one (1) of the following units may be used:

(1) One (1) 475 horsepower, diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 475 tons of RAP per hour.

(2) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 150 tons of RAP per hour.

(3) One (1) 100 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 125 tons of RAP per hour.

(4) One (1) 300 horsepower diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), approved in 2020 for construction, with a maximum capacity of 400 tons of RAP per hour.

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, and in order to render the requirements of 326 IAC 2-2 not applicable, 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.

(g) The VOC emissions from the final product hot-mix asphalt storage silos shall not exceed 0.012 pounds per ton of asphalt processed.

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: SO2, NOx, 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:

(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 SO2 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 SO2 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) SO2 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) NOx 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 SO2, NOx, and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of SO2 and NOx 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 68.96 pounds per hour when operating at a process weight rate of 500 tons (or 1,000,000 pounds) per hour.

<table>
<thead>
<tr>
<th>Process / Emission Unit</th>
<th>P (ton/hr)</th>
<th>E (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portable Crusher/Screener (475 hp)</td>
<td>475</td>
<td>68.34</td>
</tr>
<tr>
<td>Portable Crusher/Screener (173 hp)</td>
<td>150</td>
<td>55.44</td>
</tr>
<tr>
<td>Portable Crusher/Screener (100 hp)</td>
<td>125</td>
<td>53.54</td>
</tr>
<tr>
<td>Portable Crusher/Screener (300 hp)</td>
<td>400</td>
<td>66.31</td>
</tr>
</tbody>
</table>

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

\[ E = 55.0 \cdot P^{0.11} - 40 \]

where \( E \) = rate of emission in pounds per hour; and \( P \) = process weight rate in tons per hour

D.1.6 Sulfur Dioxide (SO2) [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 (SO2) emissions from the dryer/mixer burner shall not exceed five tenths (0.5) pounds per MMBtu when using distillate oil.

(2) The sulfur dioxide (SO2) 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)]

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)

(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]

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.

D.1.10 Sulfur Dioxide (SO2) 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.

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.

Use of blast furnace slag with a sulfur content of less than or equal to 1.5% demonstrates compliance with the dryer/mixer limit in D.1.3(a)(6).

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.

Use of steel furnace slag with a sulfur content of less than or equal to 0.66% demonstrates compliance with the dryer/mixer limit in D.1.3(a)(8).

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 determine SO2 and NOx emissions according to the following formulas:

(a) Sulfur Dioxide (SO2) Emission Calculation

\[ S = G(E_g) + O(E_o) + W(E_w) + B(E_b) + T(E_t) \]
2,000 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
EG = 0.60 lb/million cubic feet of natural gas
EO = 71.0 lb/1000 gallons of No. 2 fuel oil
EW = 110.3 lb/1000 gallons of waste oil
EB = 0.74 lb/ton of blast furnace slag used
ET = 0.0014 lb/ton of steel slag used

(b) Nitrogen Oxides (NOx) Emission Calculation

\[ N = G(EG) + O(EO) + W(EW) \]

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.
EG = 190 lb/million cubic feet of natural gas;
EO = 24.0 lb/1000 gallons of No. 2 fuel oil;
EW = 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

(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

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

(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:**

(l) 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.

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

<table>
<thead>
<tr>
<th>Type of binder</th>
<th>adjustment factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>cutback asphalt rapid cure</td>
<td>1.053</td>
</tr>
<tr>
<td>cutback asphalt medium cure</td>
<td>1.429</td>
</tr>
<tr>
<td>cutback asphalt slow cure</td>
<td>4.000</td>
</tr>
<tr>
<td>emulsified asphalt</td>
<td>2.155</td>
</tr>
<tr>
<td>other asphalt</td>
<td>40.0</td>
</tr>
</tbody>
</table>

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

(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

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 eleven (11) compartments with a total aggregate holding capacity of 550 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 maximum anticipated pile size of 3.0 acres;

   (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.

   (i) one (1) dust storage silo with a maximum capacity of 650 barrels;

   (j) 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:
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), 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)]

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:

(k) One (1) diesel fuel-fired portable crusher/screener, not to exceed 500 horsepower, processing reclaimed asphalt pavement (RAP), with a maximum throughput not to exceed 500 tons of RAP per hour. Additional RAP crusher/screeners may be located at the source for storage and maintenance only. Only one (1) crusher/screener can be operable at any one time. Only one (1) of the following units may be used:

(1) One (1) 475 horsepower, diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 475 tons of RAP per hour.

(2) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 150 tons of RAP per hour.

(3) One (1) 100 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 125 tons of RAP per hour.

(4) One (1) 300 hp diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum capacity of 400 tons of RAP per hour.

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.

(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

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

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: ____________________________
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
□ 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 2-8-12

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

| 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, SO₂, VOC, NOₓ, 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.

<table>
<thead>
<tr>
<th>QUARTER:</th>
<th>YEAR:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 1 + Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hot-mix Asphalt Produced This Month (tons)</td>
<td>Hot-mix Asphalt Produced Previous 11 Months (tons)</td>
<td>12 Month Total Hot-mix Asphalt Produced (tons)</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

☐ No deviation occurred in this quarter.

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

Submitted by: _________________________________________
Title / Position: _________________________________________
Signature: _____________________________________________
Date: _________________________________________________
Phone: _______________________________________________
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 / SO2 and NOx emissions**

**Emission Limits:**
- **Sulfur dioxide (SO2)** 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 (NOx)** 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:

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

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:

<table>
<thead>
<tr>
<th>Type of Binder</th>
<th>Binder Usage Limit (tons per 12 consecutive month period)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutback Asphalt Rapid Cure</td>
<td>49.29</td>
</tr>
<tr>
<td>Cutback Asphalt Medium Cure</td>
<td>66.90</td>
</tr>
<tr>
<td>Cutback Asphalt Slow Cure</td>
<td>187.32</td>
</tr>
<tr>
<td>Emulsified Asphalt</td>
<td>100.93</td>
</tr>
<tr>
<td>Other Asphalt</td>
<td>1,873.20</td>
</tr>
</tbody>
</table>
### FESOP Quarterly Report - Fuel & Slag Usage / SO2 and NOx emissions

<table>
<thead>
<tr>
<th>QUARTER:</th>
<th>YEAR:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>Fuel Types / Slag (units)</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 1 + Column 2</th>
<th>Equation Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Usage</td>
<td>Usage</td>
<td>Usage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>This Month</td>
<td>Previous 11 Months</td>
<td>12 Month Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Natural Gas (million cubic feet)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No. 2 Fuel Oil (gallons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Waste Fuel Oil (gallons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blast Furnace Slag (tons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Slag Usage (tons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Natural Gas (million cubic feet)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No. 2 Fuel Oil (gallons)</td>
<td></td>
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<tr>
<td></td>
<td>Waste Fuel Oil (gallons)</td>
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</tr>
<tr>
<td></td>
<td>Blast Furnace Slag (tons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Slag Usage (tons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Sulfur Dioxide (SO2) Emissions (tons per 12 months)**
- **Nitrogen Oxides (NOx) Emissions (tons per 12 months)**

**□ 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

<table>
<thead>
<tr>
<th>QUARTER:</th>
<th>YEAR:</th>
</tr>
</thead>
</table>

#### Month | Binder/Emulsion Types (tons) | Column 1 | Column 2 | Column 1 + Column 2 | Equation | VOC Emissions (tons per 12 months) |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Solvent Use This Month (tons)</td>
<td>Solvent Usage Previous 11 Months (tons)</td>
<td>Solvent Usage 12 Month Total (tons)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutback asphalt rapid cure liquid binder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutback asphalt medium cure liquid binder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutback asphalt slow cure liquid binder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emulsified asphalt with solvent liquid binder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other asphalt with solvent liquid binder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutback asphalt rapid cure liquid binder</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Cutback asphalt medium cure liquid binder</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutback asphalt slow cure liquid binder</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Emulsified asphalt with solvent liquid binder</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other asphalt with solvent liquid binder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutback asphalt rapid cure liquid binder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutback asphalt medium cure liquid binder</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Cutback asphalt slow cure liquid binder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emulsified asphalt with solvent liquid binder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other asphalt with solvent liquid binder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 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: __________________________

VOC Emitted (tons/yr) = VOC solvent used for each binder (tons/yr) multiplied by adjustment factor

<table>
<thead>
<tr>
<th>Type of Binder</th>
<th>Adjustment Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutback Asphalt Rapid Cure</td>
<td>1.053</td>
</tr>
<tr>
<td>Cutback Asphalt Medium Cure</td>
<td>1.429</td>
</tr>
<tr>
<td>Cutback Asphalt Slow Cure</td>
<td>4.0</td>
</tr>
<tr>
<td>Emulsified Asphalt</td>
<td>2.155</td>
</tr>
<tr>
<td>Other Asphalt</td>
<td>40.0</td>
</tr>
</tbody>
</table>
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".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

<table>
<thead>
<tr>
<th>Permit Requirement (specify permit condition #)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Deviation:</td>
</tr>
<tr>
<td>Number of Deviations:</td>
</tr>
<tr>
<td>Probable Cause of Deviation:</td>
</tr>
<tr>
<td>Response Steps Taken:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permit Requirement (specify permit condition #)</th>
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<tr>
<td>Date of Deviation:</td>
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<tr>
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</tr>
<tr>
<td>Response Steps Taken:</td>
</tr>
<tr>
<td>Permit Requirement (specify permit condition #)</td>
</tr>
<tr>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Date of Deviation:</td>
</tr>
<tr>
<td>Number of Deviations:</td>
</tr>
<tr>
<td>Probable Cause of Deviation:</td>
</tr>
<tr>
<td>Response Steps Taken:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permit Requirement (specify permit condition #)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Deviation:</td>
<td>Duration of Deviation:</td>
</tr>
<tr>
<td>Number of Deviations:</td>
<td></td>
</tr>
<tr>
<td>Probable Cause of Deviation:</td>
<td></td>
</tr>
<tr>
<td>Response Steps Taken:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permit Requirement (specify permit condition #)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Deviation:</td>
<td>Duration of Deviation:</td>
</tr>
<tr>
<td>Number of Deviations:</td>
<td></td>
</tr>
<tr>
<td>Probable Cause of Deviation:</td>
<td></td>
</tr>
<tr>
<td>Response Steps Taken:</td>
<td></td>
</tr>
</tbody>
</table>

Form Completed by: ________________________________
Title / Position: ________________________________
Date: ________________________________
Phone: ________________________________
Source Description and Location

Source Name: Milestone Contractors, L.P.
Source Location: 5160 East 96th Street, Indianapolis, IN 46240
County: Hamilton
SIC Code: 2951 (Asphalt Paving Mixtures and Blocks)
Operation Permit No.: F 057-36556-03289
Operation Permit Issuance Date: June 17, 2016
Significant Permit Revision No.: 057-43578-03289
Permit Reviewer: Shelby O’Neal

Existing Approvals

The source was issued FESOP Renewal No. 057-36556-03289 on June 17, 2016. The source has since received the following approvals:

<table>
<thead>
<tr>
<th>Permit Type</th>
<th>Permit Number</th>
<th>Issuance Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Amendment</td>
<td>057-38779-03289</td>
<td>August 11, 2017</td>
</tr>
<tr>
<td>Significant Permit Revision</td>
<td>057-40415-03289</td>
<td>December 14, 2018</td>
</tr>
<tr>
<td>Administrative Amendment</td>
<td>057-42259-03289</td>
<td>January 10, 2020</td>
</tr>
<tr>
<td>Administrative Amendment</td>
<td>057-42942-03289</td>
<td>August 4, 2020</td>
</tr>
</tbody>
</table>

County Attainment Status

The source is located in Hamilton County.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO₂</td>
<td>Better than national standards.</td>
</tr>
<tr>
<td>CO</td>
<td>Unclassifiable or attainment effective November 15, 1990.</td>
</tr>
<tr>
<td>O₃</td>
<td>Unclassifiable or attainment effective January 16, 2018, for the 2015 8-hour ozone standard.</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>Unclassifiable or attainment effective April 15, 2015, for the 2012 annual PM₂.₅ standard.</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>Unclassifiable or attainment effective December 13, 2009, for the 2006 24-hour PM₂.₅ standard.</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>Unclassifiable effective November 15, 1990.</td>
</tr>
<tr>
<td>NO₂</td>
<td>Unclassifiable or attainment effective January 29, 2012, for the 2010 NO₂ standard.</td>
</tr>
<tr>
<td>Pb</td>
<td>Unclassifiable or attainment effective December 31, 2011, for the 2008 lead standard.</td>
</tr>
</tbody>
</table>

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOₓ) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOₓ emissions are considered when evaluating the rule applicability relating to ozone. Hamilton County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOₓ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
(b) PM$_{2.5}$
Hamilton County has been classified as attainment for PM$_{2.5}$. Therefore, direct PM$_{2.5}$, SO$_2$, and NOx 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 the 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 (1) of the twenty-eight (28) listed source categories under 326 IAC 2-2-1(ff)(1), 326 IAC 2-3-2(g), or 326 IAC 2-7-1(22)(B). However, there is an applicable New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants that was in effect on August 7, 1980 (NSPS Subpart I for Hot Mix Asphalt Facilities); therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

The fugitive emissions of hazardous air pollutants (HAP) are counted toward the determination of Part 70 Permit applicability and source status under Section 112 of the Clean Air Act (CAA).

Greenhouse Gas (GHG) Emissions

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.

Source Status - Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

<table>
<thead>
<tr>
<th>Source-Wide Emissions Prior to Revision (ton/year)</th>
<th>PM$^1$</th>
<th>PM$_{10}^1$</th>
<th>PM$_{2.5}^1$</th>
<th>SO$_2$</th>
<th>NO$_x$</th>
<th>VOC</th>
<th>CO</th>
<th>Single HAP$^3$</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PTE of Entire Source Excluding Fugitive Emissions*</td>
<td>184.25</td>
<td>75.37</td>
<td>84.57</td>
<td>95.00</td>
<td>95.00</td>
<td>22.74</td>
<td>92.96</td>
<td>8.57</td>
<td>10.08</td>
</tr>
<tr>
<td>Fugitives from NSPS/NESHAP Source Category (Source-wide)</td>
<td>60.75</td>
<td>19.63</td>
<td>10.43</td>
<td>0.00</td>
<td>0.00</td>
<td>58.97</td>
<td>2.04</td>
<td>4.21</td>
<td>12.42</td>
</tr>
</tbody>
</table>
Milestone Contractors, L.P.  
Indianapolis, Indiana  
Permit Reviewer: Shelby O'Neal

### Source-Wide Emissions Prior to Revision (ton/year)

<table>
<thead>
<tr>
<th>Source</th>
<th>PM$^1$</th>
<th>PM$_{10}^1$</th>
<th>PM$_{2.5}^1,2$</th>
<th>SO$_2$</th>
<th>NO$_X$</th>
<th>VOC</th>
<th>CO</th>
<th>Single HAP$^3$</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PTE of Entire Source</td>
<td>245.00</td>
<td>95.00</td>
<td>95.00</td>
<td>95.00</td>
<td>95.00</td>
<td>81.71</td>
<td>95.00</td>
<td>8.57</td>
<td>22.50</td>
</tr>
<tr>
<td>Title V Major Source Thresholds</td>
<td>NA</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>PSD Major Source Thresholds</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

1 Under the Part 70 Permit program (40 CFR 70), PM$_{10}$ and PM$_{2.5}$, not particulate matter (PM), are each considered as a "regulated air pollutant."
2 PM$_{2.5}$ listed is direct PM$_{2.5}$.
3 Single highest source-wide HAP
4 Fugitive HAP emissions are always included in the source-wide emissions.

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is not a major source of HAP, as defined in 40 CFR 63.2, because HAP emissions are 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.

(c) These emissions are based on the TSD of Administrative Amendment No. 057-42934-03289, issued on August 4, 2020.

### Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by Milestone Contractors, L.P. on December 14, 2020, relating to the addition and removal of emission units.

The following is a list of the new emission units:

(a) four (4) final product hot-mix asphalt storage silos, approved in 2021 for construction, each with a maximum storage capacity of 300 tons;

Note: After the four (4) new final 300 ton product hot-mix asphalt storage silos are constructed, they will replace the four (4) existing 200 ton silos. No more than seven (7) silos will be in operation at the same time.

(b) four (4) liquid asphalt storage tanks, identified as Tanks AST-1 through AST-4, approved in 2021 for construction, each with a maximum storage capacity of 35,000 gallons, with emissions exhausted to Stacks DV-3, DV-5, DV-6, and DV-8, respectively.

As part of this permitting action, the following emission units are being removed the permit:

(a) 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.

(b) 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.
Enforcement Issues

There are no pending enforcement actions related to this revision.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – FESOP Significant Permit Revision

Pursuant to 326 IAC 2-1.1-1(12), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-8-11.1 (Permit Revisions). This table reflects the PTE before controls of the proposed revision. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

<table>
<thead>
<tr>
<th>Process / Emission Unit</th>
<th>PM</th>
<th>PM$_{10}$</th>
<th>PM$_{2.5}$</th>
<th>SO$_2$</th>
<th>NO$_X$</th>
<th>VOC</th>
<th>CO</th>
<th>Single HAP$^2$</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Silos</td>
<td>1.54</td>
<td>1.54</td>
<td>1.54</td>
<td>-</td>
<td>-</td>
<td>32.03</td>
<td>3.10</td>
<td>0.48</td>
<td>0.23</td>
</tr>
<tr>
<td>AST-1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Negl.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AST-2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Negl.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AST-3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Negl.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AST-4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Negl.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total PTE Before Controls of the New Emission Units:</td>
<td>1.54</td>
<td>1.54</td>
<td>1.54</td>
<td>-</td>
<td>-</td>
<td>32.03</td>
<td>3.10</td>
<td>0.48</td>
<td>0.23</td>
</tr>
</tbody>
</table>

$^1$PM$_{2.5}$ listed is direct PM$_{2.5}$.
$^2$Single highest HAP.
Negl. = Negligible

Appendix A of this TSD reflects the detailed potential emissions of the revision.

Pursuant to 326 IAC 2-8-11.1(f)(1)(E), this FESOP is being revised through a FESOP Significant Permit Revision because the proposed revision is not an Administrative Amendment or Minor Permit revision and the proposed revision involves the construction of new emission units with potential to emit equal to or greater than twenty-five (25) tons per year of the following pollutants:

(i) Volatile Organic Compounds (VOC).

PTE of the Entire Source After Issuance of the FESOP Revision

The table below summarizes the after issuance source-wide potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of the revision, and only to the extent that the effect of the control equipment is made practically enforceable in
the permit. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

<table>
<thead>
<tr>
<th>Source-Wide Emissions After Issuance (ton/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$^1$</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Total PTE of Entire Source Excluding Fugitives*</td>
</tr>
<tr>
<td>Fugitives from NSPS/NESHAP Source Category (Source Wide)</td>
</tr>
<tr>
<td>Total PTE of Entire Source</td>
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</table>

<table>
<thead>
<tr>
<th>Title V Major Source Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
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<table>
<thead>
<tr>
<th>PSD Major Source Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>250</td>
</tr>
</tbody>
</table>

1Under the Part 70 Permit program (40 CFR 70), PM$_{10}$ and PM$_{2.5}$, not particulate matter (PM), are each considered as a "regulated air pollutant."

2PM$_{2.5}$ listed is direct PM$_{2.5}$.

3Single highest source-wide HAP

*Fugitive HAP emissions are always included in the source-wide emissions.

Appendix A of this TSD reflects the detailed potential to emit of the entire source after issuance.

(a) This existing Title V minor stationary source will continue to be minor under 326 IAC 2-7 because the potential to emit regulated air pollutants and HAPs from the entire source will continue to be less than or limited to less than the Title V major source threshold levels. Therefore, the source is subject to the provisions of 326 IAC 2-8 (FESOP) and is an area source under Section 112 of the Clean Air Act (CAA).

(b) This existing minor PSD stationary source will continue to be minor under 326 IAC 2-2 because the potential to emit all PSD regulated pollutants from the entire source will continue to be less than or limited to less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

Due to the proposed revision, federal rule applicability has been reviewed as follows:

**New Source Performance Standards (NSPS):**

(a) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels After July 23, 1984, 40 CFR 60, Subpart Kb, and 326 IAC 12, are not included in the permit for the hot mix storage silos or the liquid asphalt storage tanks, identified as Tanks AST-1 through AST-4, because the 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. Each tank has 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.
National Emission Standards for Hazardous Air Pollutants (NESHAP):

(a) There are no National Emission Standards for Hazardous Air Pollutants (40 CFR Part 63), 326 IAC 14 and 326 IAC 20 included in the permit for this proposed revision.

Compliance Assurance Monitoring (CAM):

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited 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.

State Rule Applicability - Entire Source

Due to this administrative amendment, state rule applicability has been reviewed as follows:

326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset)
PSD and Emission Offset applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP Proposed Revision section of this document.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The new emission unit(s) will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in 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)
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 was constructed after December 13, 1985 and has potential fugitive particulate emissions of twenty-five (25) tons per year or more. Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the Fugitive Dust Control Plan that is included as Attachment A to the permit.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(a), this source (located in Hamilton County) is not subject to the requirements of 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 6.8 (Particulate Matter Limitations for Lake County)
Pursuant to 326 IAC 6.8-1-1(a), this source (located in Hamilton County) is not subject to the requirements of 326 IAC 6.8 because it is not located in Lake County.
326 IAC 6.8 (Lake County: Fugitive Particulate Matter)
Pursuant to 326 IAC 6.8-10-1, this source (located in Hamilton County) is not subject to the requirements of 326 IAC 6.8-10 because it is not located in Lake County.

<table>
<thead>
<tr>
<th>State Rule Applicability – Individual Facilities</th>
</tr>
</thead>
</table>

Due to the proposed revision, state rule applicability has been reviewed as follows:

Liquid Asphalt Storage Tanks

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1.5(2), the tanks are not subject to 326 6-3-2 because the units do not meet the definition of a manufacturing process.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Even though, the tanks are constructed after January 1, 1980, it is not subject to the requirements of 326 IAC 8-1-6 because its unlimited VOC potential emissions are less than twenty-five (25) tons per year.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)
Pursuant to 326 IAC 8-4-3(a), each tank has a maximum storage capacity of less than thirty-nine thousand (39,000) gallons therefore it is not subject to the requirements of 326 IAC 8-4-3.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)
The requirements of 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels) are not included in this permit for each storage tank because the source is not located in Clark, Floyd, Lake, or Porter County.

Storage Silos

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(14), the storage silos are not subject to the requirements of 326 IAC 6-3, since they are a manufacturing process with potential emissions less than 0.551 pounds per hour.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The final product hot-mix asphalt storage silos was constructed after January 1, 1980, and its unlimited VOC potential emissions are equal to or greater than twenty-five (25) tons per year and the dryer/mixer is not regulated by other rules in 326 IAC 8. The source has opted to limit the potential to emit VOC from the final product hot-mix asphalt storage silos to less than twenty-five (25) tons per twelve (12) consecutive month period in order to render the requirements of 326 IAC 8-1-6 not applicable.

In order to render the requirements of 326 IAC 8-1-6 not applicable, Permittee shall comply with the following:

1. 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.

2. The VOC emissions from the final product hot-mix asphalt storage silos shall not exceed 0.012 pounds per ton of asphalt processed.

*Note: The annual asphalt production limit is used directly to evaluate the PTE of the silo filling operation. The four new final product hot-mix asphalt storage silos are included in the silo filling operation.

<table>
<thead>
<tr>
<th>Compliance Determination and Monitoring Requirements</th>
</tr>
</thead>
</table>

There are no new or modified compliance requirements included with this proposed revision.
Proposed Changes

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

1. IDEM, OAQ added 4 new storage silos and a note regarding those units to Section A and D.1.
2. IDEM, OAQ removed one liquid asphalt storage tank and added four new liquid asphalt storage tanks.
3. IDEM, OAQ removed five liquid asphalt storage tanks.
4. IDEM, OAQ added a FESOP limit for final product hot-mix asphalt storage silos.
5. IDEM, OAQ updated the lettering of the emission units in each subsequent Section to A.

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:

- (f) three (3) final product hot-mix asphalt 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) four (4) final product hot-mix asphalt storage silos, approved in 2021 for construction, each with a maximum storage capacity of 300 tons;

Note: After the four (4) new final 300 ton product hot-mix asphalt storage silos are constructed, they will replace the four (4) existing 200 ton silos. No more than seven (7) silos will be in operation at the same time.

- (i) one (1) dust storage silo with a maximum capacity of 650 barrels;
- (j) 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.

- (k) One (1) diesel fuel-fired portable crusher/screener, not to exceed 500 horsepower, processing reclaimed asphalt pavement (RAP), with a maximum throughput not to exceed 500 tons of RAP per hour. Additional RAP crusher/screeners may be located at the source for storage and maintenance only. Only one (1) crusher/screener can be operable at any one time. Only one (1) of the following units may be used:
  1. One (1) 475 horsepower, diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 475 tons of RAP per hour.
  2. One (1) 173 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 150 tons of RAP per hour.
  3. One (1) 100 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 125 tons of RAP per hour.
(4) One (1) 300 horsepower diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), approved in 2020 for construction, with a maximum capacity of 400 tons of RAP per hour.

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.

(lk) 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:

(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 DV-9, respectively; four (4) liquid asphalt storage tanks, identified as Tanks AST-1 through AST-4, each with a maximum storage capacity of 35,000 gallons, with emissions exhausted to Stacks DV-3, DV-5, DV-6, and DV-8, respectively.

(b) four (4) liquid asphalt storage tanks, identified as Tanks AST-1 through AST-4, approved in 2021 for construction, each with a maximum storage capacity of 35,000 gallons, with emissions exhausted to Stacks DV-3, DV-5, DV-6, and DV-8, 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;

(cd) one liquid asphalt calibration tank, identified as Tank 17.

(de) 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;

(e) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(fg) application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;

(gh) 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 (100ºF) or; having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20ºC (68º); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months;

(hi) combustion source flame safety purging on startup;

(ij) closed loop heating and cooling systems;

(jk) a laboratory as defined in 326 IAC 2-7-1(21)(D); and

(kl) paved and unpaved roads and parking lots with public access.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS
Emissions Unit Description:

***

(f) three (3) final product hot-mix asphalt 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) four (4) final product hot-mix asphalt storage silos, approved in 2021 for construction, each with a maximum storage capacity of 300 tons;

Note: After the four (4) new final 300 ton product hot-mix asphalt storage silos are constructed, they will replace the four (4) existing 200 ton silos. No more than seven (7) silos will be in operation at the same time.

(ih) one (1) dust storage silo with a maximum capacity of 650 barrels;

(ji) 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.

(kj) One (1) diesel fuel-fired portable crusher/screener, not to exceed 500 horsepower, processing reclaimed asphalt pavement (RAP), with a maximum throughput not to exceed 500 tons of RAP per hour. Additional RAP crusher/screeners may be located at the source for storage and maintenance only. Only one (1) crusher/screener can be operable at any one time. Only one (1) of the following units may be used:

1. One (1) 475 horsepower, diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 475 tons of RAP per hour.

2. One (1) 173 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 150 tons of RAP per hour.

3. One (1) 100 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 125 tons of RAP per hour.

4. One (1) 300 horsepower diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), approved in 2020 for construction, with a maximum capacity of 400 tons of RAP per hour.

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.

***

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

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, and in order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following:
(g) The VOC emissions from the final product hot-mix asphalt storage silos shall not exceed 0.012 pounds per ton of asphalt processed.

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.)

SECTION E.1 NSPS

Emissions Unit Description:

***

(g) four (4) storage silos each with a maximum storage capacity of 200 tons;

(ih) one (1) dust storage silo with a maximum capacity of 650 barrels;

(ji) 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.)

SECTION E.2 NSPS
Emissions Unit Description:

(k) One (1) diesel fuel-fired portable crusher/screener, to not exceed 500 horsepower, processing reclaimed asphalt pavement (RAP), with a maximum throughput not to exceed 500 tons of RAP per hour. Additional RAP crusher/screeners may be located at the source for storage and maintenance only. Only one (1) crusher/screener can be operable at any one time. Only one (1) of the following units may be used:

1. One (1) 475 horsepower, diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 475 tons of RAP per hour.

2. One (1) 173 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 150 tons of RAP per hour.

3. One (1) 100 horsepower, diesel fuel-fired portable RAP crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum throughput of 125 tons of RAP per hour.

4. One (1) 300 hp diesel fuel-fired portable crusher/screener for processing reclaimed asphalt pavement (RAP), with a maximum capacity of 400 tons of RAP per hour.

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.

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

Conclusion and Recommendation

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 14, 2020.

IDEM Contact

(a) If you have any questions regarding this permit, please contact Shelby O'Neal, 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) 233-8578 or (800) 451-6027, and ask for Shelby O'Neal or (317) 233-8578.

(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 Air Permits page on the Internet at: http://www.in.gov/idem/airquality/2356.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.
# Unlimited Emissions Calculations

## Appendix A.1: Unlimited Emissions Calculations

### Entire Source - Drum Mix

**Company Name:** Milestone Contractors, L.P.

**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240

**Permit Number:** 057-43578-03289

**Reviewer:** Shelby O'Neal

---

### 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 0% sulfur

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

<table>
<thead>
<tr>
<th>Process Description</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
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<th>Worst Case HAP</th>
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<tbody>
<tr>
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<td></td>
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<tr>
<td>Dryer Fuel Combustion (worst case)</td>
<td>408.47</td>
<td>325.50</td>
<td>325.50</td>
<td>689.85</td>
<td>166.44</td>
<td>6.26</td>
<td>73.58</td>
<td>89.68</td>
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<td>Dryer/Mixer (Process)</td>
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<td>17,082.00</td>
<td>3,942.00</td>
<td>152.42</td>
<td>144.54</td>
<td>84.10</td>
<td>341.64</td>
<td>28.01</td>
<td>1.15 (formaldehyde)</td>
</tr>
<tr>
<td>Dryer/Mixer Slag Processing (worst case)</td>
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<td>0.23</td>
<td>4.89</td>
<td>1.38</td>
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<td>0.017 (hexane)</td>
</tr>
<tr>
<td>Hot Oil Heater Fuel Combustion/Process (worst case)</td>
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<td>0.23</td>
<td>4.89</td>
<td>1.38</td>
<td>0.05</td>
<td>0.81</td>
<td>0.022</td>
<td>0.017 (hexane)</td>
</tr>
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<td>Diesel-Fired Generator &lt; 600 HP</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diesel-Fired Generator &gt; 600 HP</td>
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<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Crusher Fuel Combustion</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Worst Case Emissions**

73,584.14 17,082.23 3,942.23 1,511.52 167.82 84.10 342.45 89.70 82.59 (hydrogen chloride)

#### Fugitive Emissions

<table>
<thead>
<tr>
<th>Fugitive Emissions</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAP</th>
<th>Worst Case HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Load-Out, Silo Filling, On-Site Yard</td>
<td>2.91</td>
<td>2.91</td>
<td>2.91</td>
<td>0</td>
<td>0</td>
<td>45.09</td>
<td>7.57</td>
<td>0.75</td>
<td>0.23 (formaldehyde)</td>
</tr>
<tr>
<td>Material Storage Pits</td>
<td>0.82</td>
<td>0.22</td>
<td>0.29</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Material Processing and Handling</td>
<td>16.98</td>
<td>8.03</td>
<td>1.22</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Material Crushing, Screening, and Conveying</td>
<td>83.39</td>
<td>30.46</td>
<td>30.46</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unpaved and Paved Roads (worst case)</td>
<td>119.97</td>
<td>30.32</td>
<td>30.32</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cold Mix Asphalt Production</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>63.163.98</td>
<td>0</td>
<td>16.475.50</td>
<td>5,654.76 (xeniles)</td>
</tr>
<tr>
<td>Gasoline Fuel Transfer and Dispensing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Waste Organic Liquid Storage Vessels</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total Fugitive Emissions**

223.08 72.01 37.91 0.00 0.00 63.208.00 7.57 16476.25 5,654.76 (xeniles)

**Totals Unlimited/Uncontrolled PTE**

73,807.21 17,154.24 3,980.13 1,511.52 167.82 63,293.15 350.02 16.565.96 5,684.76 (xeniles)

---

*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

Fugitive emissions and uncontrolled emissions must be quantified.

Fuel component percentages provided by the source.
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

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Emission Factor (units)</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>No. 2 Fuel Oil</td>
<td>No. 4 Fuel Oil</td>
</tr>
<tr>
<td>(lb/MMCF)</td>
<td>(lb/kgal)</td>
<td>(lb/kgal)</td>
</tr>
<tr>
<td>Natural Gas Usage</td>
<td>1.72</td>
<td>1.51</td>
</tr>
<tr>
<td>Butane</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Propane</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PM10/PM2.5</td>
<td>1.10</td>
<td>1.09</td>
</tr>
<tr>
<td>SO2</td>
<td>0.50</td>
<td>0.50</td>
</tr>
<tr>
<td>NOx</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>VOC</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>PM10/PM2.5</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>HAPs</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

### Unlimited/Uncontrolled Emissions

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Emission Factor (units)</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>No. 2 Fuel Oil</td>
<td>No. 4 Fuel Oil</td>
</tr>
<tr>
<td>(lb/MMCF)</td>
<td>(lb/kgal)</td>
<td>(lb/kgal)</td>
</tr>
<tr>
<td>Natural Gas Usage</td>
<td>1.72</td>
<td>1.51</td>
</tr>
<tr>
<td>Butane</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Propane</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PM10/PM2.5</td>
<td>1.10</td>
<td>1.09</td>
</tr>
<tr>
<td>SO2</td>
<td>0.50</td>
<td>0.50</td>
</tr>
<tr>
<td>NOx</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>VOC</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>PM10/PM2.5</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>HAPs</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

### Methodology

**Natural Gas Usage (MMCF/yr)** = [Maximum Fuel Input Rate (MMBtu/hr) * [8,760 hrs/yr]] / [1,000 MMBtu/MMCF]

**Propane Usage (gal/yr)** = [Maximum Fuel Input Rate (MMBtu/hr) / 0.0974 MMBtu/gal] * [8,760 hrs/yr]

**Butane Usage (gal/yr)** = [Maximum Fuel Input Rate (MMBtu/hr) / 0.140 MMBtu/gal] * [8,760 hrs/yr]

**Natural Gas Usage (MMCF/yr)** = [Maximum Fuel Input Rate (MMBtu/hr) / 1,000 MMBtu/MMCF] * [8,760 hrs/yr]

**PM =** Particulate Matter

**PM10 =** Particulate Matter (<10 um)

**PAH =** Polycyclic Aromatic Hydrocarbons

**SO2 =** Sulfur Dioxide

**VOC =** Volatile Organic Compounds

**PM10/PM2.5 =** PM10/PM2.5

**HAPs =** Hazardous Air Pollutants

**CO =** Carbon Monoxide

**NOx =** Nitrogen Oxides

**NOx =** Nitrogen Oxides

**CO =** Carbon Monoxide

**NOx =** Nitrogen Oxides

**CO =** Carbon Monoxide

**NOx =** Nitrogen Oxides

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**NOx =** Nitrogen Oxides

**CO =** Carbon Monoxide

**NOx =** Nitrogen Oxides

**CO =** Carbon Monoxide

**NOx =** Nitrogen Oxides

**CO =** Carbon Monoxide

**NOx =** Nitrogen Oxides

**CO =** Carbon Monoxide

**NOx =** Nitrogen Oxides

**CO =** Carbon Monoxide
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: 057-43578-03289
Reviewer: Shelby O’Neal

The following calculations determine the unlimited/uncontrolled emissions from the aggregate drying/mixing:

Maximum Hourly Asphalt Production = 600 ton/hr
Maximum Annual Asphalt Production = 5,256,000 ton/yr

**Uncontrolled Emission Factors (lb/ton) Unconfined/Uncontrolled Potential to Emit (tons/yr)**

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
<th>Worse Case</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PM</strong></td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>73,584.00</td>
<td>73,584.00</td>
<td>73,584.00</td>
<td>73,584.00</td>
</tr>
<tr>
<td><strong>PM2.5</strong></td>
<td>0.15</td>
<td>0.15</td>
<td>0.15</td>
<td>3,942.00</td>
<td>3,942.00</td>
<td>3,942.00</td>
<td>3,942.00</td>
</tr>
<tr>
<td><strong>SO2</strong></td>
<td>0.0034</td>
<td>0.011</td>
<td>0.058</td>
<td>8.9</td>
<td>28.9</td>
<td>152.4</td>
<td>152.4</td>
</tr>
<tr>
<td><strong>NOx</strong></td>
<td>0.026</td>
<td>0.055</td>
<td>0.055</td>
<td>68.3</td>
<td>144.5</td>
<td>144.5</td>
<td>144.5</td>
</tr>
<tr>
<td><strong>VOC</strong></td>
<td>0.032</td>
<td>0.032</td>
<td>0.032</td>
<td>84.1</td>
<td>84.1</td>
<td>84.1</td>
<td>84.1</td>
</tr>
<tr>
<td><strong>CO</strong></td>
<td>0.13</td>
<td>0.13</td>
<td>0.13</td>
<td>341.6</td>
<td>341.6</td>
<td>341.6</td>
<td>341.6</td>
</tr>
</tbody>
</table>

**Hazardous Air Pollutant**

<table>
<thead>
<tr>
<th>Hazardous Air Pollutant</th>
<th>Unconfined/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony (1.80E-07)</td>
<td>4.73E-04</td>
</tr>
<tr>
<td>Arsenic (5.60E-07)</td>
<td>1.47E-03</td>
</tr>
<tr>
<td>Beryllium (negl)</td>
<td>0</td>
</tr>
<tr>
<td>Cadmium (4.10E-07)</td>
<td>1.08E-03</td>
</tr>
<tr>
<td>Chromium (5.50E-06)</td>
<td>1.45E-02</td>
</tr>
<tr>
<td>Cobalt (4.60E-08)</td>
<td>1.45E-02</td>
</tr>
<tr>
<td>Lead (5.20E-07)</td>
<td>1.06E-03</td>
</tr>
<tr>
<td>Manganese (7.0E-06)</td>
<td>2.02E-02</td>
</tr>
<tr>
<td>Mercury (2.40E-01)</td>
<td>6.31E-03</td>
</tr>
<tr>
<td>Nickel (8.30E-05)</td>
<td>9.20E-04</td>
</tr>
<tr>
<td>Selenium (3.50E-07)</td>
<td>9.20E-04</td>
</tr>
<tr>
<td>2,2,4 Trimethylpentane (4.00E-05)</td>
<td>0.11</td>
</tr>
<tr>
<td>Acetaldehyde (1.30E-03)</td>
<td>0.11</td>
</tr>
<tr>
<td>Benzene (3.90E-04)</td>
<td>1.02</td>
</tr>
<tr>
<td>Ethylbenzene (2.40E-04)</td>
<td>1.02</td>
</tr>
<tr>
<td>Formaldehyde (3.10E-03)</td>
<td>0.63</td>
</tr>
<tr>
<td>Hexane (9.20E-04)</td>
<td>2.42</td>
</tr>
<tr>
<td>Methyl chloroform (4.80E-05)</td>
<td>0.13</td>
</tr>
<tr>
<td>Propionaldehyde (1.30E-04)</td>
<td>0.34</td>
</tr>
<tr>
<td>Quinone (1.0E-04)</td>
<td>0.42</td>
</tr>
<tr>
<td>Total PAH Haps (1.90E-04)</td>
<td>0.50</td>
</tr>
<tr>
<td>Xylene (2.00E-04)</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Total HAPs 28.01

**Methodology**

Worst Single HAP 8.15 (formaldehyde)

Unconfined/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)


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 affect 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 = Polynuclear 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: 057-43578-03289
Reviewer: Shelby O'Neal

The following calculations determine the unlimited emissions from the processing of slag in the aggregate drying/mixing

<table>
<thead>
<tr>
<th>Type of Slag</th>
<th>SO2 Emission Factor (lb/ton)</th>
<th>Unlimited Potential to Emit SO2 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blast Furnace Slag*</td>
<td>0.74</td>
<td>816.78</td>
</tr>
<tr>
<td>Steel Slag**</td>
<td>0.0014</td>
<td>1.55</td>
</tr>
</tbody>
</table>

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:** 057-43578-03289  
**Reviewer:** Shelby O'Neal

<table>
<thead>
<tr>
<th>Maximum Hot Oil Heater Fuel Input Rate</th>
<th>Hot Oil Heater</th>
</tr>
</thead>
<tbody>
<tr>
<td>= 2.20 MMBtu/hr</td>
<td></td>
</tr>
<tr>
<td>Natural Gas Usage = 19 MMCF/yr</td>
<td></td>
</tr>
<tr>
<td>No. 2 Fuel Oil Usage = 137,657 gal/yr, and 0.50 % sulfur</td>
<td></td>
</tr>
</tbody>
</table>

#### Unlimited/Uncontrolled Emissions

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas (MMCF)</th>
<th>No. 2 Fuel Oil (lbs/kgal)</th>
<th>Natural Gas (tons/yr)</th>
<th>No. 2 Fuel Oil (tons/yr)</th>
<th>Worse Case Fuel (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>1.9</td>
<td>2.0</td>
<td>0.018</td>
<td>0.138</td>
<td>0.14</td>
</tr>
<tr>
<td>PM10/PM2.5</td>
<td>7.6</td>
<td>3.3</td>
<td>0.073</td>
<td>0.227</td>
<td>0.23</td>
</tr>
<tr>
<td>SO2</td>
<td>0.6</td>
<td>71.0</td>
<td>0.006</td>
<td>4.887</td>
<td>4.89</td>
</tr>
<tr>
<td>NOx</td>
<td>100</td>
<td>20.0</td>
<td>0.964</td>
<td>1.377</td>
<td>1.38</td>
</tr>
<tr>
<td>VOC</td>
<td>5.5</td>
<td>0.20</td>
<td>0.053</td>
<td>0.014</td>
<td>0.05</td>
</tr>
<tr>
<td>CO</td>
<td>84</td>
<td>5.0</td>
<td>0.809</td>
<td>0.344</td>
<td>0.81</td>
</tr>
</tbody>
</table>

#### Hazardous Air Pollutant

<table>
<thead>
<tr>
<th>Hazardous Air Pollutant</th>
<th>Natural Gas (MMCF)</th>
<th>No. 2 Fuel Oil (lbs/kgal)</th>
<th>Natural Gas (tons/yr)</th>
<th>No. 2 Fuel Oil (tons/yr)</th>
<th>Worse Case Fuel (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>2.0E-04</td>
<td>5.6E-04</td>
<td>1.9E-05</td>
<td>3.85E-05</td>
<td>3.9E-05</td>
</tr>
<tr>
<td>Beryllium</td>
<td>1.2E-05</td>
<td>4.2E-04</td>
<td>1.2E-07</td>
<td>2.89E-05</td>
<td>2.9E-05</td>
</tr>
<tr>
<td>Cadmium</td>
<td>1.1E-03</td>
<td>4.2E-04</td>
<td>1.1E-05</td>
<td>2.89E-05</td>
<td>2.9E-05</td>
</tr>
<tr>
<td>Chromium</td>
<td>1.4E-03</td>
<td>4.2E-04</td>
<td>1.3E-05</td>
<td>2.89E-05</td>
<td>2.9E-05</td>
</tr>
<tr>
<td>Cobalt</td>
<td>8.4E-05</td>
<td>3.1E-07</td>
<td>8.1E-07</td>
<td>8.7E-05</td>
<td>8.7E-05</td>
</tr>
<tr>
<td>Lead</td>
<td>5.0E-04</td>
<td>1.3E-03</td>
<td>4.8E-06</td>
<td>8.67E-05</td>
<td>8.7E-05</td>
</tr>
<tr>
<td>Manganese</td>
<td>3.8E-04</td>
<td>6.4E-04</td>
<td>3.7E-06</td>
<td>5.78E-05</td>
<td>5.8E-05</td>
</tr>
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<td>Mercury</td>
<td>2.6E-04</td>
<td>4.2E-04</td>
<td>2.5E-06</td>
<td>2.89E-05</td>
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<tr>
<td>Nickel</td>
<td>2.1E-03</td>
<td>4.2E-04</td>
<td>2.0E-05</td>
<td>2.89E-05</td>
<td>2.9E-05</td>
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<tr>
<td>Selenium</td>
<td>2.4E-05</td>
<td>2.1E-03</td>
<td>2.3E-07</td>
<td>1.45E-04</td>
<td>1.4E-04</td>
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<td>Dichlorobenzene</td>
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<td>1.2E-05</td>
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<tr>
<td>Ethylbenzene</td>
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<tr>
<td>Formaldehyde</td>
<td>7.5E-02</td>
<td>6.1E-02</td>
<td>7.2E-04</td>
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<tr>
<td>Hexane</td>
<td>1.8E+00</td>
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<td>1.7E-02</td>
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<td>1.7E-02</td>
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<td>Phenol</td>
<td></td>
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<td>Toluene</td>
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<td></td>
<td>(Formaldehyde)</td>
<td>(Hexane)</td>
<td>(Formaldehyde)</td>
<td>(Hexane)</td>
<td></td>
</tr>
</tbody>
</table>

#### 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  
- CO = Carbon Monoxide  
- PM10 = Particulate Matter (<10 um)  
- HAP = Hazardous Air Pollutant  
- PM2.5 = Particulate Matter (<2.5 um)  
- HC = Hydrogen Chloride  
- SO2 = Sulfur Dioxide  
- PAH = Polycyclic Hydrocarbon  
- NOx = Nitrous Oxides  
- VOC = Volatile Organic Compounds
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 | Natural Gas (lb/ft³) | No. 2 Fuel Oil (lb/gal) | Natural Gas | No. 2 Fuel Oil | Unlimited/Uncontrolled Potential to Emit (tons/yr) |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>2.60E-08</td>
<td>2.65E-05</td>
<td>2.51E-04</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>CO</td>
<td>8.90E-06</td>
<td>0.0012</td>
<td>0.086</td>
<td>0.083</td>
<td>0.086</td>
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<tr>
<td>VOC</td>
<td>2.60E-08</td>
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<td>2.51E-04</td>
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<tr>
<td>CO</td>
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<td>0.0012</td>
<td>0.086</td>
<td>0.083</td>
<td>0.086</td>
</tr>
<tr>
<td>Formaldehyde</td>
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<td>3.50E-06</td>
<td>2.51E-04</td>
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<td>2.51E-04</td>
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<tr>
<td>CO</td>
<td>8.90E-06</td>
<td>0.0012</td>
<td>0.086</td>
<td>0.083</td>
<td>0.086</td>
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<tr>
<td>Acenaphthene</td>
<td>2.00E-07</td>
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<td>1.38E-05</td>
<td>1.38E-05</td>
<td>1.38E-05</td>
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<tr>
<td>CO</td>
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<td>0.086</td>
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<td>1.38E-05</td>
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<tr>
<td>CO</td>
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<td>0.086</td>
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<tr>
<td>Anthracene</td>
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<td>1.24E-05</td>
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</tr>
<tr>
<td>CO</td>
<td>8.90E-06</td>
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<td>0.086</td>
<td>0.083</td>
<td>0.086</td>
</tr>
<tr>
<td>Benzo(a)fluoranthene</td>
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<td>6.88E-06</td>
<td>6.88E-06</td>
<td>6.88E-06</td>
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<tr>
<td>CO</td>
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<td>0.086</td>
<td>0.083</td>
<td>0.086</td>
</tr>
<tr>
<td>Fluoranthene</td>
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<tr>
<td>CO</td>
<td>8.90E-06</td>
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<td>0.086</td>
<td>0.083</td>
<td>0.086</td>
</tr>
<tr>
<td>Fluorene</td>
<td>3.20E-08</td>
<td>2.20E-06</td>
<td>2.20E-06</td>
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<tr>
<td>CO</td>
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<td>0.0012</td>
<td>0.086</td>
<td>0.083</td>
<td>0.086</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>1.70E-05</td>
<td>1.17E-03</td>
<td>1.17E-03</td>
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<td>CO</td>
<td>8.90E-06</td>
<td>0.0012</td>
<td>0.086</td>
<td>0.083</td>
<td>0.086</td>
</tr>
<tr>
<td>CO</td>
<td>8.90E-06</td>
<td>0.0012</td>
<td>0.086</td>
<td>0.083</td>
<td>0.086</td>
</tr>
<tr>
<td>Pyrene</td>
<td>3.20E-08</td>
<td>2.20E-06</td>
<td>2.20E-06</td>
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<tr>
<td>CO</td>
<td>8.90E-06</td>
<td>0.0012</td>
<td>0.086</td>
<td>0.083</td>
<td>0.086</td>
</tr>
</tbody>
</table>

Total HAPs 1.83E-03
Worst Single HAP 1.17E-03

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: | 057-43578-03289 |
| Reviewer: | Shelby O'Neal |

Output Horsepower Rating (hp) | 0 |
Maximum Hours Operated per Year | 8760 |
Potential Throughput (hp-hr/yr) | 0 |
Maximum Diesel Fuel Usage (gal/yr) | 0 |

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM2.5</th>
<th>PM10</th>
<th>direct PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/hp-hr</td>
<td>0.0022</td>
<td>0.0022</td>
<td>0.0022</td>
<td>0.0021</td>
<td>0.0310</td>
<td>0.0025</td>
<td>0.0067</td>
</tr>
<tr>
<td>Emission Factor in lb/kgal</td>
<td>43.07</td>
<td>43.07</td>
<td>43.07</td>
<td>40.13</td>
<td>606.85</td>
<td>49.22</td>
<td>130.77</td>
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<tr>
<td>Potential Emission in tons/yr</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

1 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.

2 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)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Xylene</th>
<th>1,3-Butadiene</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
<th>Acrolein</th>
<th>Total PAH HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/kgal</td>
<td>1.28E-01</td>
<td>5.60E-02</td>
<td>3.91E-02</td>
<td>5.36E-03</td>
<td>1.62E-01</td>
<td>1.05E-01</td>
<td>1.27E-02</td>
<td>2.30E-02</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
</tr>
</tbody>
</table>

3 PAH = Polynuclear Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

4 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.

5 Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) * 1/10^6 (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)
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: 057-43578-03289
Reviewer: Shelby O'Neal

Output Horsepower Rating (hp) 8760
Maximum Hours Operated per Year 0
Potential Throughput (hp-hr/yr) 0
Maximum Diesel Fuel Usage (gal/yr) 0
Sulfur Content (S) of Fuel (% by weight) 0

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/hp-hr</th>
<th>PM10</th>
<th>direct PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>7.00E-04</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>2.40E-02</td>
<td>7.05E-04</td>
<td>5.50E-03</td>
<td></td>
</tr>
<tr>
<td>Emission Factor in lb/MMBtu</td>
<td>0.0573</td>
<td>0.0573</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission Factor in lb/kgal</td>
<td>13.70</td>
<td>7.85</td>
<td>7.85</td>
<td>0.00</td>
<td>469.82</td>
<td>13.80</td>
<td>107.67</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
</tr>
</tbody>
</table>

1 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.

2 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.

3 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.

Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMBtu</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Xylene</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
<th>Acrolein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/kgal</td>
<td>1.06E-01</td>
<td>3.85E-02</td>
<td>2.64E-02</td>
<td>1.06E-02</td>
<td>3.45E-03</td>
<td>1.08E-03</td>
<td></td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td></td>
</tr>
</tbody>
</table>

1 PAH = Polycyclic Aromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Potential Emission of Total HAPs (tons/yr) 0.00E+00
Potential Emission of Worst Case HAPs (tons/yr) 0.00E+00
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: 057-43578-03289
Reviewer: Shelby O'Neal

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.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Load-Out</th>
<th>Silo Filling</th>
<th>On-Site Yard</th>
<th>Load-Out</th>
<th>Silo Filling</th>
<th>On-Site Yard</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PM*</td>
<td>5.2E-04</td>
<td>5.9E-04</td>
<td>NA</td>
<td>1.37</td>
<td>1.54</td>
<td>NA</td>
<td>2.91</td>
</tr>
<tr>
<td>Organic PM</td>
<td>3.4E-04</td>
<td>2.5E-04</td>
<td>NA</td>
<td>0.90</td>
<td>0.867</td>
<td>NA</td>
<td>1.56</td>
</tr>
<tr>
<td>TOC</td>
<td>0.004</td>
<td>0.012</td>
<td>0.001</td>
<td>10.93</td>
<td>32.03</td>
<td>2.891</td>
<td>45.8</td>
</tr>
<tr>
<td>CO</td>
<td>0.001</td>
<td>0.001</td>
<td>3.5E-04</td>
<td>3.55</td>
<td>3.101</td>
<td>0.925</td>
<td>7.57</td>
</tr>
</tbody>
</table>

NA = Not Applicable (no AP-42 Emission Factor)

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)


Plant Load-Out Emission Factor Equations (AP-42 Table 11.1-14):
- Total PM/PM10/PM2.5 Ef = 0.000181 + 0.00141(-V)e^((0.0251)(T+460)-20.43)
- Organic PM Ef = 0.00141(-V)e^((0.0251)(T+460)-20.43)
- TOC Ef = 0.0172(-V)e^((0.0251)(T+460)-20.43)
- CO Ef = 0.00558(-V)e^((0.0251)(T+460)-20.43)

Silo Filling Emission Factor Equations (AP-42 Table 11.1-14):
- PM/PM10 Ef = 0.0000012 + 0.000141(-V)e^((0.0251)(T+460)-20.43)
- Organic PM Ef = 0.000141(-V)e^((0.0251)(T+460)-20.43)
- TOC Ef = 0.00105(-V)e^((0.0251)(T+460)-20.43)
- CO Ef = 0.000488(-V)e^((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
- PM2.5 = Particulate Matter (<2.5 um)
- CO = Carbon Monoxide
- HAP = Hazardous Air Pollutant
- PM = Particulate Matter
- VOC = Volatile Organic Compound
- PM10 = Particulate Matter (<10 um)
### Organic Particulate-Based Compounds (Table 11.1-15)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CASRN</th>
<th>Category</th>
<th>HAP Type</th>
<th>Source</th>
<th>Load-out and Onsite Yard (% by weight of Total Organic PM)</th>
<th>Speciation Profile</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Load-out and Onsite Yard (% by weight of Total Organic PM)</td>
<td></td>
<td>Load-out</td>
</tr>
<tr>
<td>PAH HAPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acenaphthene</td>
<td>83-32-9</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.26%</td>
<td>0.47%</td>
<td>2.3E-03</td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>208-96-8</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.028%</td>
<td>0.014%</td>
<td>2.5E-04</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120-12-7</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.07%</td>
<td>0.13%</td>
<td>6.3E-04</td>
</tr>
<tr>
<td>Benzo(a)anthracene</td>
<td>56-65-3</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.019%</td>
<td>0.056%</td>
<td>1.7E-04</td>
</tr>
<tr>
<td>Benzo(b)/fluoranthene</td>
<td>205-09-2</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0076%</td>
<td>0</td>
<td>6.8E-05</td>
</tr>
<tr>
<td>Benzo(k)/fluoranthene</td>
<td>207-08-9</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0022%</td>
<td>0</td>
<td>2.0E-05</td>
</tr>
<tr>
<td>Benzo(g,h,i)perylene</td>
<td>191-24-2</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0019%</td>
<td>0</td>
<td>1.7E-05</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>50-32-8</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0023%</td>
<td>0</td>
<td>2.1E-05</td>
</tr>
<tr>
<td>Benzo(e)pyrene</td>
<td>192-97-2</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0078%</td>
<td>0.0095%</td>
<td>7.0E-05</td>
</tr>
<tr>
<td>Chrysene</td>
<td>218-01-9</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.103%</td>
<td>0.21%</td>
<td>9.2E-04</td>
</tr>
<tr>
<td>Dibenz(a,h)anthracene</td>
<td>53-70-3</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.00037%</td>
<td>0</td>
<td>3.3E-06</td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>206-44-0</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.05%</td>
<td>0.15%</td>
<td>4.5E-04</td>
</tr>
<tr>
<td>Fluorene</td>
<td>86-73-7</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.77%</td>
<td>1.01%</td>
<td>6.9E-03</td>
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<tr>
<td>Indeno(1,2,3-cd)pyrene</td>
<td>193-39-6</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.00047%</td>
<td>0</td>
<td>4.2E-06</td>
</tr>
<tr>
<td>2-Methylnaphthalene</td>
<td>91-57-6</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>2.38%</td>
<td>5.27%</td>
<td>2.1E-02</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>1.25%</td>
<td>1.82%</td>
<td>1.1E-02</td>
</tr>
<tr>
<td>Perylene</td>
<td>198-55-0</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.022%</td>
<td>0.02%</td>
<td>2.0E-04</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>85-01-5</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.81%</td>
<td>1.80%</td>
<td>7.3E-03</td>
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<tr>
<td>Pyrene</td>
<td>129-90-0</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.15%</td>
<td>0.44%</td>
<td>1.3E-03</td>
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<tr>
<td><strong>Total PAH HAPs</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.053</td>
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<tr>
<td><strong>Other semi-volatile HAPs</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Phenol</td>
<td>PM/HAP</td>
<td>---</td>
<td>Organic PM</td>
<td>1.18%</td>
<td>0</td>
<td>1.1E-02</td>
<td>0</td>
</tr>
</tbody>
</table>

NA = Not Applicable (no AP-42 Emission Factor)

**Methodology**

Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Speciation Profile (%)] * [Organic PM (tons/yr)]


**Abbreviations**

PM = Particulate Matter  
HAP = Hazardous Air Pollutant  
POM = Polycyclic Organic Matter
### Organic Volatile-Based Compounds (Table 11.1-16)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CASRN</th>
<th>Category</th>
<th>HAP Type</th>
<th>Source</th>
<th>Load-out and Onsite Yard (% by weight of TOC)</th>
<th>Silo Filling and Asphalt Storage Tank (% by weight of TOC)</th>
<th>Speciation Profile</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>non-VOC/non-HAPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methane</td>
<td>74-82-6</td>
<td>non-VOC/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td>6.50%</td>
<td>0.26%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>non-VOC/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.046%</td>
<td>0.055%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethylene</td>
<td>74-86-1</td>
<td>non-VOC/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.71%</td>
<td>1.10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total non-VOC/non-HAPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Volatile organic HAPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.052%</td>
<td>0.032%</td>
<td>5.7E-03</td>
<td>1.0E-02</td>
</tr>
<tr>
<td>Bromomethane</td>
<td>74-83-9</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0096%</td>
<td>0.0049%</td>
<td>1.0E-03</td>
<td>1.6E-03</td>
</tr>
<tr>
<td>2-Butanone</td>
<td>79-03-3</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.049%</td>
<td>0.039%</td>
<td>5.4E-03</td>
<td>1.2E-02</td>
</tr>
<tr>
<td>Carbon Disulfide</td>
<td>75-15-0</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.013%</td>
<td>0.016%</td>
<td>1.4E-03</td>
<td>5.1E-03</td>
</tr>
<tr>
<td>Chloroethane</td>
<td>75-00-3</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.00021%</td>
<td>0.004%</td>
<td>2.3E-05</td>
<td>1.3E-03</td>
</tr>
<tr>
<td>Chloromethane</td>
<td>74-87-3</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.015%</td>
<td>0.023%</td>
<td>1.6E-03</td>
<td>7.4E-03</td>
</tr>
<tr>
<td>Cumene</td>
<td>92-82-8</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.11%</td>
<td>0</td>
<td>1.2E-02</td>
<td>3.2E-03</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.28%</td>
<td>0.038%</td>
<td>3.1E-02</td>
<td>1.2E-02</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.088%</td>
<td>0.69%</td>
<td>9.6E-03</td>
<td>2.2E-01</td>
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<tr>
<td>n-Hexane</td>
<td>100-54-3</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.15%</td>
<td>0.10%</td>
<td>1.6E-02</td>
<td>3.2E-02</td>
</tr>
<tr>
<td>Isocyanate</td>
<td>540-84-1</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0018%</td>
<td>0.00031%</td>
<td>2.0E-04</td>
<td>9.9E-05</td>
</tr>
<tr>
<td>Methylene Chloride</td>
<td>75-09-2</td>
<td>non-VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.00027%</td>
<td>0</td>
<td>8.6E-05</td>
<td>8.6E-05</td>
</tr>
<tr>
<td>MTBE</td>
<td>1634-04-4</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.01%</td>
<td>0</td>
<td>0.0040</td>
<td>0</td>
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<tr>
<td>Styrene</td>
<td>100-42-6</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0073%</td>
<td>0.0054%</td>
<td>8.6E-04</td>
<td>1.7E-03</td>
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<tr>
<td>Tetrachloroethene</td>
<td>127-18-4</td>
<td>non-VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0077%</td>
<td>0</td>
<td>8.4E-04</td>
<td>2.2E-04</td>
</tr>
<tr>
<td>Toluene</td>
<td>100-88-3</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.21%</td>
<td>0.062%</td>
<td>2.3E-02</td>
<td>2.0E-02</td>
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<tr>
<td>1,1,1-Trichloroethene</td>
<td>71-55-6</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Trichloroethene</td>
<td>79-01-6</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Trichlorofluoromethane</td>
<td>75-69-4</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0013%</td>
<td>0</td>
<td>1.4E-04</td>
<td>3.8E-05</td>
</tr>
<tr>
<td>m-/p-Xylene</td>
<td>1330-20-7</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.41%</td>
<td>0.20%</td>
<td>4.5E-02</td>
<td>6.4E-02</td>
</tr>
<tr>
<td>o-Xylene</td>
<td>95-47-6</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.08%</td>
<td>0.057%</td>
<td>8.7E-03</td>
<td>1.8E-02</td>
</tr>
<tr>
<td>Total volatile organic HAPs</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>1.50%</td>
<td>1.30%</td>
</tr>
</tbody>
</table>

**Methodology**

Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Speciation Profile (%)] * [TOC (tons/yr)]


**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: 057-43578-03289  
Reviewer: Shelby O’Neal

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.

\[ \text{Ef} = 1.7 \left( \frac{s}{1.5} \right) \left( \frac{365-p}{235} \right) \left( \frac{f}{15} \right) \]

where 
- \( \text{Ef} \) = 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

<table>
<thead>
<tr>
<th>Material</th>
<th>Silt Content (wt %)*</th>
<th>Emission Factor (lb/acre/day)</th>
<th>Maximum Anticipated Pile Size (acres)**</th>
<th>PTE of PM (tons/yr)</th>
<th>PTE of PM10/PM2.5 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>2.6</td>
<td>3.01</td>
<td>0.18</td>
<td>0.099</td>
<td>0.035</td>
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<tr>
<td>Limestone</td>
<td>1.6</td>
<td>1.85</td>
<td>0.97</td>
<td>0.328</td>
<td>0.115</td>
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<tr>
<td>RAP</td>
<td>0.5</td>
<td>0.58</td>
<td>0.33</td>
<td>0.035</td>
<td>0.012</td>
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<tr>
<td>Gravel</td>
<td>1.6</td>
<td>1.85</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Shingles</td>
<td>0.5</td>
<td>0.58</td>
<td>0.40</td>
<td>0.042</td>
<td>0.015</td>
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<tr>
<td>Slag</td>
<td>3.8</td>
<td>4.40</td>
<td>0.40</td>
<td>0.321</td>
<td>0.112</td>
</tr>
</tbody>
</table>

Totals 0.82 0.29

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: 057-43578-03289
Reviewer: Shelby O'Neal

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, 1995) are utilized.

\[ Ef = k(0.0032)[(U/5)^1.3 / (M/2)^1.4] \]
where:
- \( Ef \) = Emission factor (lb/ton)
- \( k (PM) = \) particle size multiplier (0.74 assumed for aerodynamic diameter <= 100 um)
- \( k (PM10) = \) particle size multiplier (0.35 assumed for aerodynamic diameter <= 10 um)
- \( k (PM2.5) = \) particle size multiplier (0.053 assumed for aerodynamic diameter <= 2.5 um)
- \( U = \) worst case annual mean wind speed (Source: NOAA, 2006*)
- \( M = \) material % moisture content of aggregate (Source: AP-42 Section 11.1.1.1)

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

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Unlimited/Uncontrolled PTE of PM (tons/yr)</th>
<th>Unlimited/Uncontrolled PTE of PM10 (tons/yr)</th>
<th>Unlimited/Uncontrolled PTE of PM2.5 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck unloading of materials into storage piles</td>
<td>5.66</td>
<td>2.68</td>
<td>0.41</td>
</tr>
<tr>
<td>Front-end loader dumping of materials into feeder bins</td>
<td>5.66</td>
<td>2.68</td>
<td>0.41</td>
</tr>
<tr>
<td>Conveyor dropping material into dryer/mixer or batch tower</td>
<td>5.66</td>
<td>2.68</td>
<td>0.41</td>
</tr>
<tr>
<td><strong>Total (tons/yr)</strong></td>
<td><strong>16.98</strong></td>
<td><strong>8.03</strong></td>
<td><strong>1.22</strong></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Uncontrolled Emission Factor for PM (lbs/ton)*</th>
<th>Uncontrolled Emission Factor for PM10 (lbs/ton)*</th>
<th>Unlimited/Uncontrolled PTE of PM10 (tons/yr)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crushing</td>
<td>0.0054</td>
<td>0.0024</td>
<td>13.48</td>
</tr>
<tr>
<td>Screening</td>
<td>0.025</td>
<td>0.0087</td>
<td>62.42</td>
</tr>
<tr>
<td>Conveying</td>
<td>0.003</td>
<td>0.0011</td>
<td>7.49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>83.39</strong></td>
<td><strong>30.46</strong></td>
<td><strong>83.39</strong></td>
</tr>
</tbody>
</table>

**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 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

**Abbreviations**

PM = Particulate Matter
PM2.5 = Particulate matter (< 2.5 um)
PM10 = Particulate matter (< 10 um)
PTE = Potential to Emit
Appendix A.1: Unlimited Emissions Calculations

Unpaved Roads

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

- **Company Name:** Milestone Contractors, L.P.
- **Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240
- **Permit Number:** 057-43578-03289
- **Reviewer:** Shelby O'Neal

#### Maximum Annual Asphalt Production

- **Maximum:** 12,514.2 tons/yr

#### Percent Asphalt Cement/Binder (weight %)

- **Maximum:** 6.0%

#### Maximum Asphalt Cement/Binder Throughput

- **Maximum:** 4,993.200 tons/yr

#### Maximum No. 2 Fuel Oil Usage

- **Maximum:** 36.00 

#### Maximum Weight of Vehicle

- **Maximum:** 20.3 tons/trip

#### Maximum Weight of Load

- **Maximum:** 20.3 tons/trip

### Methodology

1. **Unmitigated Emission Factor, \( E_f \):**
   \[ E_f = k[a(1-W])(1-W/3)] \]
   where:
   - \( k \) = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
   - \( a \) = mean % silt content of unpaved roads (AP-42 Table 13.2.2.3 Sand/Gravel Processing Plant Road)
   - \( W \) = mean % silt content of unpaved roads (provided by source)
2. **Mitigated Emission Factor, \( E_{ext} \):**
   \[ E_{ext} = E_f \cdot \left(1 - \text{Dust Control Efficiency}ight) \]

#### Dust Control Efficiency

- **Unmitigated:** 50%
- **Mitigated:** 50%

### Process Table

<table>
<thead>
<tr>
<th>Process</th>
<th>Vehicle Type</th>
<th>Maximum Weight of Vehicle (tons)</th>
<th>Maximum Weight of Load (tons)</th>
<th>Maximum trips per year (trip/yr)</th>
<th>Total Weight driven per year (ton/yr)</th>
<th>Maximum one-way distance (feet/trip)</th>
<th>Maximum one-way distance (miles/yr)</th>
<th>Maximum one-way distance (miles/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate/RAP Truck Enter Full</td>
<td>Dump truck (16 CY)</td>
<td>17.0</td>
<td>22.4</td>
<td>79.4</td>
<td>2,280,000</td>
<td>8,880,000</td>
<td>300</td>
<td>0.027</td>
</tr>
<tr>
<td>Aggregate/RAP Truck Leave Empty</td>
<td>Dump truck (16 CY)</td>
<td>17.0</td>
<td>22.4</td>
<td>79.4</td>
<td>2,280,000</td>
<td>8,880,000</td>
<td>300</td>
<td>0.027</td>
</tr>
<tr>
<td>Asphalt/Cement/Binder Truck Enter Full</td>
<td>Vans truck (8000 gal)</td>
<td>12.0</td>
<td>36.0</td>
<td>46.0</td>
<td>7,300,000</td>
<td>3,580,000</td>
<td>300</td>
<td>0.027</td>
</tr>
<tr>
<td>Asphalt/Cement/Binder Truck Leave Empty</td>
<td>Vans truck (8000 gal)</td>
<td>12.0</td>
<td>36.0</td>
<td>46.0</td>
<td>7,300,000</td>
<td>3,580,000</td>
<td>300</td>
<td>0.027</td>
</tr>
<tr>
<td>Hot Mix Truck Enter Full</td>
<td>Van truck (8000 gal)</td>
<td>12.0</td>
<td>36.0</td>
<td>46.0</td>
<td>1,380,000</td>
<td>8,880,000</td>
<td>300</td>
<td>0.027</td>
</tr>
<tr>
<td>Hot Mix Truck Leave Empty</td>
<td>Van truck (8000 gal)</td>
<td>12.0</td>
<td>36.0</td>
<td>46.0</td>
<td>1,380,000</td>
<td>8,880,000</td>
<td>300</td>
<td>0.027</td>
</tr>
<tr>
<td>Aggregate/TLP Loader Full</td>
<td>Front-end loader (3 CY)</td>
<td>102.93</td>
<td>26.23</td>
<td>2.62</td>
<td>67.68</td>
<td>17.25</td>
<td>1.72</td>
<td>33.84</td>
</tr>
<tr>
<td>Aggregate/TLP Loader Empty</td>
<td>Front-end loader (3 CY)</td>
<td>102.93</td>
<td>26.23</td>
<td>2.62</td>
<td>67.68</td>
<td>17.25</td>
<td>1.72</td>
<td>33.84</td>
</tr>
<tr>
<td>Asphalt Concrete Truck Enter Full</td>
<td>Dump truck (16 CY)</td>
<td>17.0</td>
<td>22.4</td>
<td>79.4</td>
<td>2,280,000</td>
<td>8,880,000</td>
<td>300</td>
<td>0.027</td>
</tr>
<tr>
<td>Asphalt Concrete Truck Leave Full</td>
<td>Dump truck (16 CY)</td>
<td>17.0</td>
<td>22.4</td>
<td>79.4</td>
<td>2,280,000</td>
<td>8,880,000</td>
<td>300</td>
<td>0.027</td>
</tr>
<tr>
<td>Tanker Truck (6000 gal)</td>
<td>12.0</td>
<td>36.0</td>
<td>46.0</td>
<td>7,300,000</td>
<td>3,580,000</td>
<td>300</td>
<td>0.027</td>
<td>414.8</td>
</tr>
</tbody>
</table>

### Emissions Calculations

- **PM10**: 0.7 lb/mile
- **PM2.5**: 0.9 lb/mile
- **PTE of PM**: 50% (pursuant to control measures outlined in fugitive dust control plan)
- **PTE of PM2.5**: 50% (pursuant to control measures outlined in fugitive dust control plan)

### Appendices

- **Abbreviations**
- **Controlled PTE (tons/yr)** = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)
- **Mitigated PTE (tons/yr)** = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
- **Unmitigated PTE (tons/yr)** = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
- **Average Miles Per Trip** = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]
- **Average Vehicle Weight Per Trip** = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]
- **Maximum one-way distance** = [Maximum one-way distance (feet/trip) / 5280 ft/mile]
- **Maximum Weight of Vehicle and Load** = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]
- **Maximum Weight of Load** = [Maximum Weight of Load (tons/trip)]
- **Maximum Weight of Vehicle** = [Maximum Weight of Vehicle (tons/trip)]
- **Maximum asphalt cement/binder throughputs** = [Annual asphalt production limitation (tons/yr)] * [Percent asphalt cement/binder (weight %)]
- **Maximum material handling throughputs** = [Annual asphalt production limitation (tons/yr)] * [1 - Percent asphalt cement/binder (weight %)]

### Conclusion

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).
### 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).

#### Process Vehicle Type

<table>
<thead>
<tr>
<th>Process</th>
<th>Vehicle Type</th>
<th>Maximum Weight of Vehicle (tons)</th>
<th>Maximum Weight of Load (tons)</th>
<th>Maximum Weight driven per year (ton/yr)</th>
<th>Maximum one-way distance (feet/yr)</th>
<th>Maximum one-way distance (miles/yr)</th>
<th>Controlled PTE of PM10 (ton/yr)</th>
<th>Controlled PTE of PM2.5 (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate/Asphalt Concrete Truck Leave Full Dump truck (16 CY)</td>
<td>17.0</td>
<td>22.4</td>
<td>39.40</td>
<td>2.2E+05</td>
<td>8.8E+06</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Concrete Truck Leave Empty Dump truck (16 CY)</td>
<td>12.0</td>
<td>0</td>
<td>12.00</td>
<td>1.2E+06</td>
<td>2.3E+07</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Concrete Truck Leave Full Dump truck (6000 gal)</td>
<td>15.0</td>
<td>4.2</td>
<td>19.20</td>
<td>1.2E+06</td>
<td>2.3E+07</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Concrete Truck Leave Empty Dump truck (6000 gal)</td>
<td>12.0</td>
<td>0</td>
<td>12.00</td>
<td>1.2E+06</td>
<td>2.3E+07</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Concrete Truck Leave Full Front-end loader (3 CY)</td>
<td>17.0</td>
<td>22.4</td>
<td>39.40</td>
<td>2.2E+05</td>
<td>8.8E+06</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Concrete Truck Leave Empty Front-end loader (3 CY)</td>
<td>15.0</td>
<td>4.2</td>
<td>19.20</td>
<td>1.2E+06</td>
<td>2.3E+07</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Concrete Truck Leave Full Front-end loader (3 CY)</td>
<td>12.0</td>
<td>0</td>
<td>12.00</td>
<td>1.2E+06</td>
<td>2.3E+07</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
</tr>
<tr>
<td>Aggregate/Asphalt Concrete Truck Leave Empty Front-end loader (3 CY)</td>
<td>12.0</td>
<td>0</td>
<td>12.00</td>
<td>1.2E+06</td>
<td>2.3E+07</td>
<td>0</td>
<td>0.000</td>
<td>0.0</td>
</tr>
</tbody>
</table>

#### Methodology

Maximum Material Handling Throughput = Annual Asphalt Production / Percent Asphalt Cement/Binder (weight %)

Maximum Asphalt Cement/Binder Throughput = Maximum Material Handling Throughput * Percent Asphalt Cement/Binder (weight %)

Average Miles Per Trip = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]

Average Vehicle Weight Per Trip = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]

Maximum one-way distance = [Maximum trips per year (trip/yr)] * [Maximum one-way distance (feet/trip)] / [5280 ft/mile]

Maximum one-way miles (miles/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]

Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]

Where:
- Ef = Unmitigated Emission Factor
- p = Dust Control Efficiency
- N = Number of days per year

Ef = \( k \times (sL)^{0.91} \times (W)^{1.02} \) (Equation 1 from AP-42 13.2.1)

\( sL = 0.6 \) = Unmitigated Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

\( W = 20.3 \) = Average vehicle weight (provided by source)

\( N = 365 \) days per year

Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]

Maximum No. 2 Fuel Oil Usage = Maximum annual fuel oil usage = 12,514,286 gallons/yr

Maximum Asphalt/Concrete Truck Leave Full Dump truck (16 CY) = 17.0 tons/trip

Maximum Asphalt/Concrete Truck Leave Empty Dump truck (16 CY) = 12.0 tons/trip

Total: 3.3E+06 PM = 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: 057-43578-03289
Reviewer: Shelby O'Neal

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

<table>
<thead>
<tr>
<th>Compound Description</th>
<th>Weight % of VOC solvent in binder*</th>
<th>Weight % VOC solvent in binder that evaporates</th>
<th>Maximum VOC Solvent Usage (tons/yr)</th>
<th>PTE of VOC (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)</td>
<td>25.3%</td>
<td>95.0%</td>
<td>66,488.4</td>
<td>63,164.0</td>
</tr>
<tr>
<td>Cut back asphalt medium cure (assuming kerosene solvent)</td>
<td>28.6%</td>
<td>70.0%</td>
<td>75,160.8</td>
<td>52,612.6</td>
</tr>
<tr>
<td>Cut back asphalt slow cure (assuming fuel oil solvent)</td>
<td>20.0%</td>
<td>25.0%</td>
<td>52,560.0</td>
<td>18,290.9</td>
</tr>
<tr>
<td>Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)</td>
<td>15.0%</td>
<td>46.4%</td>
<td>39,420.0</td>
<td>18,290.9</td>
</tr>
<tr>
<td>Other asphalt with solvent binder</td>
<td>25.9%</td>
<td>2.5%</td>
<td>68,065.2</td>
<td>1,701.6</td>
</tr>
</tbody>
</table>

Worst Case PTE of VOC = 63,164.0 tons/yr

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

PTE of Total HAPs (tons/yr) = 16,475.50
PTE of Single HAP (tons/yr) = 5,684.76 Xylenes

Hazardous Air Pollutant (HAP) Content (% by weight)* For Various Petroleum Solvents

<table>
<thead>
<tr>
<th>Volatile Organic HAP</th>
<th>CAS#</th>
<th>Hazardous Air Pollutant (HAP) Content (% by weight)* For Various Petroleum Solvents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Gasoline</td>
</tr>
<tr>
<td>1,3-Butadiene</td>
<td>100-99-0</td>
<td>3.70E-5%</td>
</tr>
<tr>
<td>2,2,4-Trimethylpentane</td>
<td>540-84-1</td>
<td>2.40%</td>
</tr>
<tr>
<td>Acenaphthene</td>
<td>83-32-9</td>
<td>4.70E-5%</td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>208-96-8</td>
<td>4.50E-5%</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120-12-7</td>
<td>1.20E-6%</td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>1.90%</td>
</tr>
<tr>
<td>Benzo(a)anthracene</td>
<td>56-55-3</td>
<td>9.60E-7%</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>50-32-6</td>
<td>2.20E-6%</td>
</tr>
<tr>
<td>Benzo(1,2,3-cd)pyrene</td>
<td>191-24-2</td>
<td>1.20E-7%</td>
</tr>
<tr>
<td>Biphenyl</td>
<td>92-52-4</td>
<td>6.30E-4%</td>
</tr>
<tr>
<td>Chrysene</td>
<td>219-01-9</td>
<td>4.50E-7%</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>106-41-4</td>
<td>1.70%</td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>208-44-0</td>
<td>7.10E-6%</td>
</tr>
<tr>
<td>Fluorene</td>
<td>86-73-7</td>
<td>4.20E-5%</td>
</tr>
<tr>
<td>Indeno(1,2,3-cd)pyrene</td>
<td>193-39-5</td>
<td>1.60E-7%</td>
</tr>
<tr>
<td>Methyl-tert-butylether</td>
<td>10634-04-4</td>
<td>0.33%</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.25%</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
<td>2.40%</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>85-01-8</td>
<td>8.60E-6%</td>
</tr>
<tr>
<td>Pyrene</td>
<td>129-00-0</td>
<td>2.40E-6%</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>8.10%</td>
</tr>
<tr>
<td>Total Xylenes</td>
<td>1330-20-7</td>
<td>9.00%</td>
</tr>
<tr>
<td>Total Organic HAPs</td>
<td></td>
<td>26.08%</td>
</tr>
<tr>
<td>Worst Single HAPs</td>
<td></td>
<td>9.00%</td>
</tr>
</tbody>
</table>

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 % of 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)]


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: 057-43578-03289
Reviewer: Shelby O'Neal

Gasoline Throughput = 0 gallons/day = 0.0 kgal/yr

Volatile Organic Compounds

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Emission Factor (lb/kgal of throughput)</th>
<th>PTE of VOC (tons/yr)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filling storage tank (balanced submerged filling)</td>
<td>0.3</td>
<td>0.00</td>
</tr>
<tr>
<td>Tank breathing and emptying</td>
<td>1.0</td>
<td>0.00</td>
</tr>
<tr>
<td>Vehicle refueling (displaced losses - controlled)</td>
<td>1.1</td>
<td>0.00</td>
</tr>
<tr>
<td>Spillage</td>
<td>0.7</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>0.00</strong></td>
</tr>
</tbody>
</table>

Hazardous Air Pollutants

<table>
<thead>
<tr>
<th></th>
<th>Worst Case Total HAP Content of VOC solvent (weight %)* = 26.08%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Worst Case Single HAP Content of VOC solvent (weight %) = 9.0% Xylenes</td>
</tr>
<tr>
<td>Limited PTE of Total HAPs (tons/yr) =</td>
<td>0.00</td>
</tr>
<tr>
<td>Limited PTE of Single HAP (tons/yr) =</td>
<td>0.00 Xylenes</td>
</tr>
</tbody>
</table>

Methodology
The gasoline throughput was provided by the source.

\[
\text{Gasoline Throughput (kgal/yr) = [Gasoline Throughput (lbs/day)]} \times \frac{365 \text{ days/yr}}{\text{365 days/yr}} \times \frac{\text{kgal/1000 gal}}{\text{1000 gal}}
\]

\[
\text{PTE of VOC (tons/yr) = [Gasoline Throughput (kgal/yr)]} \times \text{Emission Factor (lb/kgal)} \times \frac{\text{ton/2000 lb}}{\text{2000 lb}}
\]

\[
\text{PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)]} \times \text{PTE of VOC (tons/yr)}
\]

\[
\text{PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)]} \times \text{PTE of VOC (tons/yr)}
\]


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 96th Street, Indianapolis, Indiana 46240
Permit Number: 057-43578-03289
Reviewer: Shelby O'Neal

Asphalt Plant Limitations - Drum Mix

<table>
<thead>
<tr>
<th>Process Description</th>
<th>Criteria Pollutants</th>
<th>Limited/Controlled Potential Emissions (tons/year)</th>
<th>Hazardous Air Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PM</td>
<td>PM10</td>
<td>PM2.5</td>
</tr>
<tr>
<td>Ducted Emissions</td>
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<tr>
<td>Dryer Fuel Combustion (worst case)</td>
<td>42.40</td>
<td>33.79</td>
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<tr>
<td>Dryer/Mixer (Process)</td>
<td>184.11</td>
<td>76.14</td>
<td>84.34</td>
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<td>Dryer/Mixer Slag Processing</td>
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<td>0.23</td>
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<td>Hot Oil/Heater Fuel Combustion/Process (worst case)</td>
<td>0.14</td>
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<td>Diesel-Fired Generator &lt; 600 HP</td>
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<td>Diesel-Fired Generator &gt; 600 HP</td>
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<td>Crusher Fuel Combustion*</td>
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<td>Worst Case Emissions**</td>
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<td>75.37</td>
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<td>Fugitive Emissions</td>
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<tr>
<td>Asphalt Load-Out, Silo Filling, On-Site Yard</td>
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<td>0.29</td>
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<td>Material Processing and Handling</td>
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<td>Material Crushing, Screening, and Conveying</td>
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<td>6.22</td>
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<td>Cold Mix Asphalt Production</td>
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<td>Gasoline Fuel Transfer and Dispensing</td>
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<td>Total Fugitive Emissions</td>
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<td>Totals Limited/Controlled Emissions</td>
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<td>95.00</td>
<td>95.00</td>
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</table>

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 80, 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.
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

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Limited Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>985</td>
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<tr>
<td>Residual (No. 5 or No. 6) Fuel Oil</td>
<td>66.28</td>
</tr>
<tr>
<td>Propane</td>
<td>93.62</td>
</tr>
<tr>
<td>Butane</td>
<td>71.61</td>
</tr>
<tr>
<td>Used/Waste Oil</td>
<td>3.62</td>
</tr>
</tbody>
</table>

### Methodology

- **Natural Gas**: Limited Potential to Emit (tons/yr) = (Natural Gas Limitation (MMCF/yr)) * (Emission Factor (lb/MMCF)) * (ton/2000 lbs)
- **Residual (No. 5 or No. 6) Fuel Oil**: 66.28 tons/yr
- **Propane**: 93.62 tons/yr
- **Butane**: 71.61 tons/yr
- **Used/Waste Oil**: 3.62 tons/yr

### Waste Oil

- **Used/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

### Table of Criteria Pollutants

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Natural Gas (lb/MMCF)</th>
<th>No. 2 Fuel Oil (lb/kgal)</th>
<th>No. 4 Fuel Oil (lb/kgal)</th>
<th>Residual (No. 5 or No. 6) Fuel Oil (tons/yr)</th>
<th>Propane (tons/yr)</th>
<th>Butane (tons/yr)</th>
<th>Used/Waste Oil (tons/yr)</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>5.97</td>
<td>0.04</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>CO</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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</tr>
<tr>
<td>SO2</td>
<td>2.78 x10^-5</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>NOx</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>VOC</td>
<td>1.32 x10^-3</td>
<td>1.32 x10^-3</td>
<td>1.32 x10^-3</td>
<td>1.32 x10^-3</td>
<td>1.32 x10^-3</td>
<td>1.32 x10^-3</td>
<td>1.32 x10^-3</td>
<td>1.32 x10^-3</td>
</tr>
</tbody>
</table>

### Methodology Details

- **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 % sulfur
- **Butane Limitation**: 0 gal/yr, and 0 % sulfur
- **Used/Waste Oil Limitation**: 1,299,105 gal/yr, and 0.75 % sulfur

### Source Address

<table>
<thead>
<tr>
<th>Source Address:</th>
<th>Milestone Contractors, L.P.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Name:</td>
<td>Milestone Contractors, L.P.</td>
</tr>
<tr>
<td>Source Address:</td>
<td>5160 East 96th Street, Indianapolis, Indiana 46240</td>
</tr>
<tr>
<td>Permit Number:</td>
<td>057-43578-03289</td>
</tr>
<tr>
<td>Reviewer:</td>
<td>Shelby O'Neal</td>
</tr>
</tbody>
</table>

**Notes:**
- All Other Fuels. Limited Potential to Emit (tons/yr) = (Fuel Limitation (gallons/yr)) * (Emission Factor (lb/gallon)) * (lb/1000 gallons) * (tons/2000 lbs)
- Sources of AP-42 Emission Factors for fuel combustion: AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4

**Abbreviations:***
- PM = Particulate Matter
- VOC = Volatile Organic Compounds
- CO = Carbon Monoxide
- PM10 = Particulate Matter (<10 um)
- PM2.5 = Particulate Matter (<2.5 um)
- SO2 = Sulfur Dioxide
- HAP = Hazardous Air Pollutant
- NOx = Nitrous Oxides
- PAH = Polycyclic Aromatic Hydrocarbon

**References:**

*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.
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

<table>
<thead>
<tr>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
<th>Worse Case PTE</th>
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<td>0.260</td>
<td>0.260</td>
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<td>0.032</td>
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### Hazardous Air Pollutant

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<th>Waste Oil</th>
<th>Natural Gas</th>
<th>No. 2 Fuel Oil</th>
<th>Waste Oil</th>
<th>PTE</th>
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<td>0.11</td>
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<tr>
<td>Xylene</td>
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<td>0.14</td>
<td>0.14</td>
<td>0.14</td>
</tr>
</tbody>
</table>

**Total HAPs**: 7.56

**Methodology**

Limited/Controlled Potential to Emit (tons/yr) = (Annual Asphalt Production Limitation (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)


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

**Worst Single HAP**: 2.197436812 (formaldehyde)
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
Limited Annual Steel Slag Usage = 1,417,701 ton/yr

<table>
<thead>
<tr>
<th>Type of Slag</th>
<th>SO2 Emission Factor (lb/ton)</th>
<th>Limited Potential to Emit SO2 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blast Furnace Slag*</td>
<td>0.7400</td>
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</tr>
<tr>
<td>Steel Slag**</td>
<td>0.0014</td>
<td>0.99</td>
</tr>
</tbody>
</table>

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
Hot Oil Heater

Company Name: Milestone Contractors, L.P.
Source Address: 5160 East 96th Street, Indianapolis, Indiana 46240
Permit Number: 057-43578-03289
Reviewer: Shelby O’Neal

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

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Unlimited/Uncontrolled Emission Factor (units)</th>
<th>Hot Oil Heater</th>
<th>Hot Oil Heater</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Natural Gas (lb/MMCF)</td>
<td>No. 2 Fuel Oil (lb/kgal)</td>
<td>Natural Gas (tons/yr)</td>
</tr>
<tr>
<td>PM</td>
<td>1.9</td>
<td>2.0</td>
<td>0.019</td>
</tr>
<tr>
<td>PM2.5</td>
<td>7.6</td>
<td>3.3</td>
<td>0.073</td>
</tr>
<tr>
<td>SO2</td>
<td>0.6</td>
<td>7.1</td>
<td>0.006</td>
</tr>
<tr>
<td>NOx</td>
<td>100</td>
<td>20.0</td>
<td>0.954</td>
</tr>
<tr>
<td>VOC</td>
<td>5.5</td>
<td>0.20</td>
<td>0.053</td>
</tr>
<tr>
<td>CO</td>
<td>84</td>
<td>2.0</td>
<td>0.820</td>
</tr>
</tbody>
</table>

- Hazardous Air Pollutant

<table>
<thead>
<tr>
<th>Hazardous Air Pollutant</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>2.0E-04</td>
</tr>
<tr>
<td>Beryllium</td>
<td>1.2E-05</td>
</tr>
<tr>
<td>Cadmium</td>
<td>1.1E-03</td>
</tr>
<tr>
<td>Chromium</td>
<td>1.4E-03</td>
</tr>
<tr>
<td>Cobalt</td>
<td>8.4E-05</td>
</tr>
<tr>
<td>Lead</td>
<td>5.0E-04</td>
</tr>
<tr>
<td>Manganese</td>
<td>3.8E-04</td>
</tr>
<tr>
<td>Mercury</td>
<td>2.6E-04</td>
</tr>
<tr>
<td>Nickel</td>
<td>2.1E-03</td>
</tr>
<tr>
<td>Selenium</td>
<td>2.4E-05</td>
</tr>
<tr>
<td>Benzene</td>
<td>2.1E-03</td>
</tr>
<tr>
<td>Dichlorobenzene</td>
<td>1.2E-03</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>0</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>7.5E-02</td>
</tr>
<tr>
<td>Hexane</td>
<td>1.8E+00</td>
</tr>
<tr>
<td>Phenol</td>
<td>0</td>
</tr>
<tr>
<td>Toluene</td>
<td>3.4E-03</td>
</tr>
</tbody>
</table>

Total HAPs = 2.7E-04

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
- CO = Carbon Monoxide
- NOx = Nitrous Oxides
- VOC = Volatile Organic Compounds
- PM10 = Particulate Matter (<10 um)
- HAP = Hazardous Air Pollutant
- PM2.5 = Particulate Matter (<2.5 um)
- HCl = Hydrogen Chloride
- SO2 = Sulfur Dioxide
- PAH = Polycyclic Aromatic Hydrocarbon
- Abbreviations: PM = Particulate Matter, CO = Carbon Monoxide, NOx = Nitrous Oxides, VOC = Volatile Organic Compounds
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

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Triglyceride (lb/ft³)</th>
<th>No. 2 Fuel Oil (lb/gal)</th>
<th>Natural Gas (lb/ft³)</th>
<th>No. 2 Fuel Oil (lb/gal)</th>
<th>Unlimited/Uncontrolled Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>2.60E-08</td>
<td>2.65E-05</td>
<td>2.51E-04</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>CO</td>
<td>8.90E-06</td>
<td>0.0012</td>
<td>0.086</td>
<td>0.083</td>
<td>0.086</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>2.60E-08</td>
<td>3.60E-06</td>
<td>2.51E-04</td>
<td>2.41E-04</td>
<td>2.51E-04</td>
</tr>
<tr>
<td>Acenaphthene</td>
<td>5.30E-07</td>
<td>3.65E-05</td>
<td>3.65E-05</td>
<td>3.65E-05</td>
<td>3.65E-05</td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>2.00E-07</td>
<td>1.38E-05</td>
<td>1.38E-05</td>
<td>1.38E-05</td>
<td>1.38E-05</td>
</tr>
<tr>
<td>Anthracene</td>
<td>1.80E-07</td>
<td>1.24E-05</td>
<td>1.24E-05</td>
<td>1.24E-05</td>
<td>1.24E-05</td>
</tr>
<tr>
<td>Benzo(a)fluoranthene</td>
<td>1.00E-07</td>
<td>6.88E-06</td>
<td>6.88E-06</td>
<td>6.88E-06</td>
<td>6.88E-06</td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>4.40E-08</td>
<td>3.02E-06</td>
<td>3.02E-06</td>
<td>3.02E-06</td>
<td>3.02E-06</td>
</tr>
<tr>
<td>Fluorene</td>
<td>3.20E-08</td>
<td>2.20E-06</td>
<td>2.20E-06</td>
<td>2.20E-06</td>
<td>2.20E-06</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>1.70E-05</td>
<td>1.17E-03</td>
<td>1.17E-03</td>
<td>1.17E-03</td>
<td>1.17E-03</td>
</tr>
<tr>
<td>Pyrene</td>
<td>3.20E-08</td>
<td>2.20E-06</td>
<td>2.20E-06</td>
<td>2.20E-06</td>
<td>2.20E-06</td>
</tr>
</tbody>
</table>

Total HAPs = 1.83E-03
Worst Single HAP = 1.17E-03

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))*(1000 lbs/ton)
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
### 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:** 057-43578-03289

**Reviewer:** Shelby O’Neal

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM0</th>
<th>PM10</th>
<th>direct PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/hp-hr</td>
<td>0.0022</td>
<td>0.0022</td>
<td>0.0022</td>
<td>0.0021</td>
<td>0.0310</td>
<td>0.0025</td>
<td>0.0067</td>
</tr>
<tr>
<td>Emission Factor in lb/kgal</td>
<td>43.07</td>
<td>43.07</td>
<td>43.07</td>
<td>40.13</td>
<td>606.85</td>
<td>49.22</td>
<td>130.77</td>
</tr>
<tr>
<td>Limited Emission in tons/yr</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

1. 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.

2. 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)

3. 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)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Xylene</th>
<th>1,3-Butadiene</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
<th>Acrolein</th>
<th>Total PAH HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/kgal</td>
<td>1.28E-01</td>
<td>5.63E-02</td>
<td>3.91E-02</td>
<td>5.36E-03</td>
<td>1.62E-01</td>
<td>1.05E-01</td>
<td>1.27E-02</td>
<td>2.30E-02</td>
</tr>
<tr>
<td>Limited Emission in tons/yr</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
</tr>
</tbody>
</table>

4. PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

5. 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.

6. Emission factor (lb/kgal) = AP-42 EF (lb/MMBtu) * 1/10^6 (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

| Limited Emission of Total HAPs (tons/yr) | 0.00E+00 |
| Limited Emission of Worst Case HAPs (tons/yr) | 0.00E+00 |
### 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:** 057-43578-03289
**Reviewer:** Shelby O'Neal

<table>
<thead>
<tr>
<th>Output Horsepower Rating (hp)</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited Hours Operated per Year</td>
<td>0</td>
</tr>
<tr>
<td>Limited Throughput (hp-hr/yr)</td>
<td>0</td>
</tr>
<tr>
<td>Limited Diesel Fuel Usage (gal/yr)</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM</th>
<th>PM10</th>
<th>direct PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/hp-hr</td>
<td>7.00E-04</td>
<td>0.00E+00</td>
<td>2.40E-02</td>
<td>7.05E-04</td>
<td>5.50E-03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission Factor in lb/MMBtu</td>
<td>0.0573</td>
<td>0.0573</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission Factor in lb/kgal1</td>
<td>13.70</td>
<td>7.85</td>
<td>7.85</td>
<td>0.00</td>
<td>469.82</td>
<td>13.80</td>
<td>107.67</td>
</tr>
<tr>
<td>Limited Emission in tons/yr</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

1 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.

**Hazardous Air Pollutants (HAPs)**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Xylene</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
<th>Acrolein</th>
<th>Total PAH HAPs3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMBtu</td>
<td>7.76E-04</td>
<td>2.81E-04</td>
<td>1.93E-04</td>
<td>7.69E-05</td>
<td>2.52E-05</td>
<td>7.88E-06</td>
<td>2.12E-04</td>
</tr>
<tr>
<td>Emission Factor in lb/kgal4</td>
<td>1.06E-01</td>
<td>3.85E-02</td>
<td>2.64E-02</td>
<td>1.08E-02</td>
<td>3.45E-03</td>
<td>1.08E-03</td>
<td>2.91E-02</td>
</tr>
<tr>
<td>Limited Emission in tons/yr</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td>0.00E+00</td>
<td></td>
</tr>
</tbody>
</table>

3 PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

4 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.

Limited Emission of Total HAPs (tons/yr) | 0.00E+00 |
Limited Emission of Worst Case HAPs (tons/yr) | 0.00E+00 |
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: 057-43578-03289
Reviewer: Shelby O'Neal

Asphalt Temperature, $T = 325\, ^\circ F$
Asphalt Volatility Factor, $V = -0.5$
Annual Asphalt Production Limitation = 1,417,701 tons/yr

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Load-Out</th>
<th>Silo Filling</th>
<th>On-Site Yard</th>
<th>Load-Out</th>
<th>Silo Filling</th>
<th>On-Site Yard</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PM*</td>
<td>5.2E-04</td>
<td>5.9E-04</td>
<td>NA</td>
<td>0.37</td>
<td>0.42</td>
<td>NA</td>
<td>0.79</td>
</tr>
<tr>
<td>Organic PM</td>
<td>3.4E-04</td>
<td>2.5E-04</td>
<td>NA</td>
<td>0.24</td>
<td>0.180</td>
<td>NA</td>
<td>0.42</td>
</tr>
<tr>
<td>TOC</td>
<td>0.004</td>
<td>0.012</td>
<td>0.001</td>
<td>2.95</td>
<td>8.64</td>
<td>0.780</td>
<td>12.4</td>
</tr>
<tr>
<td>CO</td>
<td>0.001</td>
<td>0.001</td>
<td>3.5E-04</td>
<td>0.96</td>
<td>0.836</td>
<td>0.250</td>
<td>2.04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emission Factor (lb/ton asphalt)</th>
<th>Limited Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM/HAPs</td>
<td>0.017</td>
</tr>
<tr>
<td>VOC/HAPs</td>
<td>0.044</td>
</tr>
<tr>
<td>non-VOC/HAPs</td>
<td>0.21</td>
</tr>
<tr>
<td>Total VOCs</td>
<td>2.77</td>
</tr>
<tr>
<td>Total HAPs</td>
<td>0.06</td>
</tr>
<tr>
<td>Worst Single HAP</td>
<td>0.063 (formaldehyde)</td>
</tr>
</tbody>
</table>

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)
Plant Load-Out Emission Factor Equations (AP-42 Table 11.1-14):

- Total PM/PM10 EF = 0.000181 + 0.00141(-V)e^((0.0251)(T+460)-20.43)
- Organic PM EF = 0.00141(-V)e^((0.0251)(T+460)-20.43)
- TOC EF = 0.0172(-V)e^((0.0251)(T+460)-20.43)
- CO EF = 0.00558(-V)e^((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^((0.0251)(T+460)-20.43)
- Organic PM EF = 0.00105(-V)e^((0.0251)(T+460)-20.43)
- TOC EF = 0.0504(-V)e^((0.0251)(T+460)-20.43)
- CO EF = 0.00488(-V)e^((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
- PM2.5 = Particulate Matter (<2.5 um)
- CO = Carbon Monoxide
- HAP = Hazardous Air Pollutant
- PM = Particulate Matter
- VOC = Volatile Organic Compound
- PM10 = Particulate Matter (<10 um)
## 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:** 057-43578-03289  
**Reviewer:** Shelby O’Neal

### Organic Particulate-Based Compounds (Table 11.1-15)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CASRN</th>
<th>Category</th>
<th>HAP Type</th>
<th>Source</th>
<th>Load-out and Onsite Yard (% by weight of Total Organic PM)</th>
<th>Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)</th>
<th>Load-out</th>
<th>Silo Filling</th>
<th>Onsite Yard</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAH HAPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acenaphthene</td>
<td>83-32-9</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.26%</td>
<td>0.47%</td>
<td>6.3E-04</td>
<td>8.5E-04</td>
<td>NA</td>
<td>1.5E-03</td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>208-96-8</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.028%</td>
<td>0.014%</td>
<td>6.8E-05</td>
<td>2.5E-05</td>
<td>NA</td>
<td>9.3E-05</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120-12-7</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.07%</td>
<td>0.13%</td>
<td>1.7E-04</td>
<td>2.3E-04</td>
<td>NA</td>
<td>4.0E-04</td>
</tr>
<tr>
<td>Benzo(a)anthracene</td>
<td>56-55-3</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.019%</td>
<td>0.056%</td>
<td>4.6E-05</td>
<td>1.0E-04</td>
<td>NA</td>
<td>1.5E-04</td>
</tr>
<tr>
<td>Benzo(b)fluoranthene</td>
<td>205-99-2</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0076%</td>
<td>0</td>
<td>1.8E-05</td>
<td>0</td>
<td>NA</td>
<td>1.8E-05</td>
</tr>
<tr>
<td>Benzo(k)fluoranthene</td>
<td>207-08-9</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0022%</td>
<td>0</td>
<td>5.3E-06</td>
<td>0</td>
<td>NA</td>
<td>5.3E-06</td>
</tr>
<tr>
<td>Benzo(a,h)pyrene</td>
<td>191-24-2</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0019%</td>
<td>0</td>
<td>4.6E-06</td>
<td>0</td>
<td>NA</td>
<td>4.6E-06</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>50-32-8</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0023%</td>
<td>0</td>
<td>5.6E-06</td>
<td>0</td>
<td>NA</td>
<td>5.6E-06</td>
</tr>
<tr>
<td>Benzo(e)pyrene</td>
<td>192-97-2</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.0078%</td>
<td>0.0006%</td>
<td>1.9E-05</td>
<td>1.7E-05</td>
<td>NA</td>
<td>3.6E-05</td>
</tr>
<tr>
<td>Chrysene</td>
<td>218-01-9</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.103%</td>
<td>0.21%</td>
<td>2.5E-04</td>
<td>3.8E-04</td>
<td>NA</td>
<td>6.3E-04</td>
</tr>
<tr>
<td>Dibenz(a,h)anthracene</td>
<td>53-70-3</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.00037%</td>
<td>0</td>
<td>8.9E-07</td>
<td>0</td>
<td>NA</td>
<td>8.9E-07</td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>206-44-0</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.05%</td>
<td>0.15%</td>
<td>1.2E-04</td>
<td>2.7E-04</td>
<td>NA</td>
<td>3.9E-04</td>
</tr>
<tr>
<td>Fluorene</td>
<td>86-73-7</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.77%</td>
<td>1.01%</td>
<td>1.9E-03</td>
<td>1.8E-03</td>
<td>NA</td>
<td>3.7E-03</td>
</tr>
<tr>
<td>Indeno(1,2,3-cd)pyrene</td>
<td>193-39-6</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.00047%</td>
<td>0</td>
<td>1.1E-06</td>
<td>0</td>
<td>NA</td>
<td>1.1E-06</td>
</tr>
<tr>
<td>2-Methylanthanthene</td>
<td>91-57-6</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>2.38%</td>
<td>5.27%</td>
<td>5.8E-03</td>
<td>9.5E-03</td>
<td>NA</td>
<td>0.015</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>1.25%</td>
<td>1.82%</td>
<td>3.0E-03</td>
<td>3.3E-03</td>
<td>NA</td>
<td>6.3E-03</td>
</tr>
<tr>
<td>Perylene</td>
<td>198-55-0</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.022%</td>
<td>0.03%</td>
<td>5.3E-05</td>
<td>5.4E-05</td>
<td>NA</td>
<td>1.1E-04</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>85-01-8</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.81%</td>
<td>1.80%</td>
<td>2.0E-03</td>
<td>3.2E-03</td>
<td>NA</td>
<td>5.2E-03</td>
</tr>
<tr>
<td>Pyrene</td>
<td>129-00-0</td>
<td>PM/HAP</td>
<td>POM</td>
<td>Organic PM</td>
<td>0.15%</td>
<td>0.44%</td>
<td>3.6E-04</td>
<td>7.9E-04</td>
<td>NA</td>
<td>1.2E-03</td>
</tr>
<tr>
<td>Total PAH HAPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.014</td>
<td>0.021</td>
<td>NA</td>
<td>0.035</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other semi-volatile HAPs</th>
<th>PM/HAP</th>
<th>Organic PM</th>
<th>Load-out</th>
<th>Silo Filling</th>
<th>Onsite Yard</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenol</td>
<td>PM/HAP</td>
<td>Organic PM</td>
<td>1.18%</td>
<td>0</td>
<td>2.9E-03</td>
<td>0</td>
</tr>
</tbody>
</table>

NA = Not Applicable (no AP-42 Emission Factor)

### Methodology

Limited Potential to Emit (tons/yr) = [Speciation Profile (%)] * [Organic PM (tons/yr)]


### 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)**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CASRN</th>
<th>Category</th>
<th>HAP Type</th>
<th>Source</th>
<th>Load-out and Onsite Yard (% by weight of TOC)</th>
<th>Silo Filling and Asphalt Storage Tank (% by weight of TOC)</th>
<th>Limited Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VOC</strong></td>
<td>VOC</td>
<td>---</td>
<td>TOC</td>
<td>94%</td>
<td>100%</td>
<td>2.77</td>
<td>8.64</td>
</tr>
<tr>
<td>non-VOC/non-HAPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methane</td>
<td>74-82-8</td>
<td>non-VOC/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td>6.50%</td>
<td>0.26%</td>
<td>1.9E-01</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>non-VOC/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.46%</td>
<td>0.055%</td>
<td>1.4E-03</td>
</tr>
<tr>
<td>Ethylene</td>
<td>74-85-1</td>
<td>non-VOC/non-HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.71%</td>
<td>1.10%</td>
<td>2.1E-02</td>
</tr>
<tr>
<td><strong>Total non-VOC/non-HAPS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.30%</td>
<td>1.40%</td>
<td>0.215</td>
</tr>
<tr>
<td>Volatile organic HAPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.052%</td>
<td>0.032%</td>
<td>1.5E-03</td>
</tr>
<tr>
<td>Bromomethane</td>
<td>74-83-9</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0096%</td>
<td>0.0049%</td>
<td>2.8E-04</td>
</tr>
<tr>
<td>2-Butanone</td>
<td>78-93-3</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.049%</td>
<td>0.039%</td>
<td>1.4E-03</td>
</tr>
<tr>
<td>Carbon Disulfide</td>
<td>75-15-0</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.013%</td>
<td>0.016%</td>
<td>3.8E-04</td>
</tr>
<tr>
<td>Chloromethane</td>
<td>75-00-3</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.00021%</td>
<td>0.004%</td>
<td>6.2E-06</td>
</tr>
<tr>
<td>Chloromethane</td>
<td>74-87-3</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.015%</td>
<td>0.23%</td>
<td>4.4E-04</td>
</tr>
<tr>
<td>Cumene</td>
<td>92-82-8</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.11%</td>
<td>0</td>
<td>3.2E-03</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.28%</td>
<td>0.038%</td>
<td>8.3E-03</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.088%</td>
<td>0.69%</td>
<td>2.6E-03</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>100-54-3</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.15%</td>
<td>0.10%</td>
<td>4.4E-03</td>
</tr>
<tr>
<td>Isooctane</td>
<td>540-84-1</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0018%</td>
<td>0.00031%</td>
<td>5.3E-05</td>
</tr>
<tr>
<td>Methylene Chloride</td>
<td>75-09-2</td>
<td>non-VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0</td>
<td>0.00027%</td>
<td>0</td>
</tr>
<tr>
<td>MTBE</td>
<td>1634-04-4</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Styrene</td>
<td>100-42-5</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0073%</td>
<td>0.0054%</td>
<td>2.2E-04</td>
</tr>
<tr>
<td>Tetrachloroethene</td>
<td>127-18-4</td>
<td>non-VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0077%</td>
<td>0</td>
<td>2.3E-04</td>
</tr>
<tr>
<td>Toluene</td>
<td>100-88-3</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.21%</td>
<td>0.062%</td>
<td>6.2E-03</td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
<td>71-55-6</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trichloroethene</td>
<td>79-01-6</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trichlorofluoromethane</td>
<td>75-69-4</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.0013%</td>
<td>0</td>
<td>3.8E-05</td>
</tr>
<tr>
<td>m-/p-Xylene</td>
<td>1330-20-7</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.41%</td>
<td>0.20%</td>
<td>1.2E-02</td>
</tr>
<tr>
<td>o-Xylene</td>
<td>95-47-6</td>
<td>VOC/HAP</td>
<td>---</td>
<td>TOC</td>
<td>0.08%</td>
<td>0.057%</td>
<td>2.4E-03</td>
</tr>
<tr>
<td><strong>Total volatile organic HAPs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.50%</td>
<td>1.30%</td>
<td>0.044</td>
</tr>
</tbody>
</table>

**Methodology**

Limited Potential to Emit (tons/yr) = [Speciation Profile (%)] * [TOC (tons/yr)]


**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:  057-43578-03289
Reviewer:  Shelby O'Neal

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.

\[
Ef = 1.7 \times \left( \frac{s}{1.5} \right) \times 365 - p \times \frac{f}{15} \\
\text{where } Ef = \text{emission factor (lb/acre/day)}
\]

\[
s = \text{silt content (wt %)}
\]

\[
p = 125 \text{ days of rain greater than or equal to 0.01 inches}
\]

\[
f = 15\% \text{ of wind greater than or equal to 12 mph}
\]

<table>
<thead>
<tr>
<th>Material</th>
<th>Silt Content (wt %)*</th>
<th>Emission Factor (lb/acre/day)</th>
<th>Maximum Anticipated Pile Size (acres)**</th>
<th>PTE of PM (tons/yr)</th>
<th>PTE of PM10/PM2.5 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>2.6</td>
<td>3.01</td>
<td>0.18</td>
<td>0.099</td>
<td>0.035</td>
</tr>
<tr>
<td>Limestone</td>
<td>1.6</td>
<td>1.85</td>
<td>0.97</td>
<td>0.328</td>
<td>0.115</td>
</tr>
<tr>
<td>RAP</td>
<td>0.5</td>
<td>0.58</td>
<td>0.33</td>
<td>0.035</td>
<td>0.012</td>
</tr>
<tr>
<td>Gravel</td>
<td>1.6</td>
<td>1.85</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Shingles</td>
<td>0.5</td>
<td>0.58</td>
<td>0.40</td>
<td>0.042</td>
<td>0.015</td>
</tr>
<tr>
<td>Slag</td>
<td>3.8</td>
<td>4.40</td>
<td>0.40</td>
<td>0.321</td>
<td>0.112</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>0.82</strong></td>
<td><strong>0.29</strong></td>
<td><strong>0.82</strong></td>
<td><strong>0.541</strong></td>
<td><strong>0.209</strong></td>
</tr>
</tbody>
</table>

Methodology

\[
PTE \text{ of PM (tons/yr)} = (\text{Emission Factor (lb/acre/day)}) \times (\text{Maximum Pile Size (acres)}) \times (\text{ton/2000 lbs}) \times (8760 \text{ hours/yr})
\]

\[
PTE \text{ of PM10/PM2.5 (tons/yr)} = (\text{Potential PM Emissions (tons/yr)}) \times 35\%
\]

* 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
PM2.5 = Particulate Matter (≤2.5 um)
PM = Particulate Matter
PTE = Potential to Emit
PM10 = Particulate Matter (≤10 um)
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: 057-43578-03289
Reviewer: Shelby O’Neal

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.

\[
Ef = k*(0.0032)\frac{(U/5)^{1.3}}{(M/2)^{1.4}}
\]

where:
- \(Ef\) = 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)

\[
\begin{align*}
Ef \text{ (PM)} &= 2.27E-03 \text{ lb PM/ton of material handled} \\
Ef \text{ (PM10)} &= 1.07E-03 \text{ lb PM10/ton of material handled} \\
Ef \text{ (PM2.5)} &= 1.62E-04 \text{ lb PM2.5/ton of material handled}
\end{align*}
\]

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

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Limited PTE of PM (tons/yr)</th>
<th>Limited PTE of PM10 (tons/yr)</th>
<th>Limited PTE of PM2.5 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck unloading of materials into storage piles</td>
<td>1.53</td>
<td>0.72</td>
<td>0.11</td>
</tr>
<tr>
<td>Front-end loader dumping of materials into feeder bins</td>
<td>1.53</td>
<td>0.72</td>
<td>0.11</td>
</tr>
<tr>
<td>Conveyor dropping material into dryer/mixer or batch tower</td>
<td>1.53</td>
<td>0.72</td>
<td>0.11</td>
</tr>
<tr>
<td><strong>Total (tons/yr)</strong></td>
<td><strong>4.58</strong></td>
<td><strong>2.17</strong></td>
<td><strong>0.33</strong></td>
</tr>
</tbody>
</table>

Methodology

Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]

Limited Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)

Raw materials may include limestone, sand, recycled asphalt pavement (RAP), gravel, slag, and other additives

*Worst case annual mean wind speed (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.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Uncontrolled Emission Factor for PM (lbs/ton)*</th>
<th>Uncontrolled Emission Factor for PM10 (lbs/ton)*</th>
<th>Limited PTE of PM (tons/yr)</th>
<th>Limited PTE of PM10/PM2.5 (tons/yr)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crushing</td>
<td>0.0054</td>
<td>0.0024</td>
<td>3.64</td>
<td>1.62</td>
</tr>
<tr>
<td>Screening</td>
<td>0.025</td>
<td>0.0087</td>
<td>16.84</td>
<td>5.86</td>
</tr>
<tr>
<td>Conveying</td>
<td>0.003</td>
<td>0.0011</td>
<td>2.02</td>
<td>0.74</td>
</tr>
<tr>
<td><strong>Limited Potential to Emit (tons/yr)</strong></td>
<td><strong>22.49</strong></td>
<td></td>
<td><strong>8.22</strong></td>
<td></td>
</tr>
</tbody>
</table>

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)

*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

*Worst case annual mean wind speed (Indianapolis, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006
### Unpaved Roads at Industrial Site

The following calculations determine the amount of emissions created by unpaved roads, based on 8,780 hours of use and AP-42, Ch 13.2.2 (12/2003).

#### Methodology

- **Maximum Material Handling Throughput** = \[\text{Annual Asphalt Production Limitation} \times \text{Percent Asphalt Cement/Binder (weight %)}\]
- **Maximum Weight of Vehicle and Load (tons/trip)** = \[\text{Maximum Weight of Vehicle (tons/trip)} + \text{Maximum Weight of Load (tons/trip)}\]
- **Maximum Emission Factor (lb/mile)** = \[\text{Mitigated Emission Factor, } E_{\text{ext}} = E \times \left(\frac{365 - P}{365}\right)\]
- **Maximum one-way distance (miles/trip)** = \[\text{Maximum one-way distance (feet/trip)} / 5280 \text{ ft/mile}\]
- **Average Vehicle Weight Per Trip =** 20.3 tons/trip
- **Average Miles Per Trip =** 0.088 miles/trip

#### Abbreviations
- **PM =** Particulate Matter
- **PM10 =** Particulate Matter (<10 um)
- **PM2.5 =** Particulate Matter (<2.5 um)
- **PTE =** Potential to Emit

#### Total PTE of PM10 and PM2.5

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Maximum Weight of Vehicle (tons)</th>
<th>Maximum Weight of Load (tons)</th>
<th>Maximum Weight of Vehicle and Load (tons/trip)</th>
<th>Maximum Trips per Year (trips/yr)</th>
<th>Maximum one-way distance (miles/trip)</th>
<th>Maximum one-way distance (feet/trip)</th>
<th>Maximum Weight of Load (tons/yr)</th>
<th>Maximum PTE of PM10 (tons/yr)</th>
<th>Maximum PTE of PM2.5 (tons/yr)</th>
<th>Controlled PTE of PM10 (tons/yr)</th>
<th>Controlled PTE of PM2.5 (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate/RAP Loader Empty</td>
<td>18.41</td>
<td>2.65</td>
<td>21.06</td>
<td>42.0</td>
<td>3.50</td>
<td>11,460</td>
<td>0.07</td>
<td>0.17</td>
<td>0.09</td>
<td>0.09</td>
<td>0.09</td>
</tr>
<tr>
<td>Aggregate/RAP Loader Full</td>
<td>16.41</td>
<td>2.65</td>
<td>19.06</td>
<td>42.0</td>
<td>3.50</td>
<td>11,460</td>
<td>0.07</td>
<td>0.17</td>
<td>0.09</td>
<td>0.09</td>
<td>0.09</td>
</tr>
<tr>
<td>Asphalt Cement/Binder Loader Empty</td>
<td>20.3</td>
<td>0.06</td>
<td>20.38</td>
<td>41.0</td>
<td>0.46</td>
<td>1,417</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Asphalt Cement/Binder Loader Full</td>
<td>20.3</td>
<td>0.06</td>
<td>20.38</td>
<td>41.0</td>
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<td>0.09</td>
</tr>
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<td>11,460</td>
<td>0.07</td>
<td>0.17</td>
<td>0.09</td>
<td>0.09</td>
<td>0.09</td>
</tr>
</tbody>
</table>

### Total

- **1,346,816 tons/yr PM10**
- **1,346,816 tons/yr PM2.5**

#### Calculations

- **Unmitigated Emission Factor,** $E = \frac{k \times (X/2) \times (W/3)}{P}$ (Equation 1a from AP-42 Table 13.2.2)
- **Mitigated Emission Factor,** $E_{\text{ext}} = E \times \left(\frac{365 - P}{365}\right)$
- **Taking natural mitigation due to precipitation into consideration**
- **Average Miles Per Trip =** 20.3 miles/trip

#### Unmitigated Emission Factor, $E = \frac{k \times (X/2) \times (W/3)}{P}$

<table>
<thead>
<tr>
<th>Process</th>
<th>Maximum Emission Factor (lb/mile)</th>
<th>Average Emission Factor, $E = \frac{k \times (X/2) \times (W/3)}{P}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate/RAP Loader Empty</td>
<td>4.8</td>
<td>4.8 \times 0.01 \times 0.01 = 0.009</td>
</tr>
<tr>
<td>Aggregate/RAP Loader Full</td>
<td>4.8</td>
<td>4.8 \times 0.01 \times 0.01 = 0.009</td>
</tr>
<tr>
<td>Asphalt Cement/Binder Loader Empty</td>
<td>5.0</td>
<td>5.0 \times 0.01 \times 0.01 = 0.005</td>
</tr>
<tr>
<td>Asphalt Cement/Binder Loader Full</td>
<td>5.0</td>
<td>5.0 \times 0.01 \times 0.01 = 0.005</td>
</tr>
</tbody>
</table>

#### Mitigated Emission Factor, $E_{\text{ext}} = E \times \left(\frac{365 - P}{365}\right)$

<table>
<thead>
<tr>
<th>Process</th>
<th>Maximum Emission Factor (lb/mile)</th>
<th>Mitigated Emission Factor, $E_{\text{ext}} = E \times \left(\frac{365 - P}{365}\right)$</th>
</tr>
</thead>
</table>
| Aggregate/RAP Loader Empty        | 0.01                              | 0.009 \times \left(\frac{365 - 0.45}{365}\right) = 0.009 \times 0.996 = 0.009
| Aggregate/RAP Loader Full         | 0.01                              | 0.009 \times \left(\frac{365 - 0.45}{365}\right) = 0.009 \times 0.996 = 0.009
| Asphalt Cement/Binder Loader Empty | 0.01                             | 0.005 \times \left(\frac{365 - 0.45}{365}\right) = 0.005 \times 0.996 = 0.005
| Asphalt Cement/Binder Loader Full | 0.01                             | 0.005 \times \left(\frac{365 - 0.45}{365}\right) = 0.005 \times 0.996 = 0.005

### Totals

- **70,885 tons/yr PM10**
- **70,885 tons/yr PM2.5**
### Paved Roads Limited Emissions

**Source Address:** 5160 East 96th Street, Indianapolis, Indiana 46240  
**Permit Number:** 057-43378-03299  
**Reviewer:** Shelby O'Neal

#### 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).

#### Calculations

- **Annual Asphalt Production Limitation**
- **Maximum Material Handling Throughput**
- **Maximum Asphalt Cement/Binder Throughput**

#### Emission Factors

- **Unmitigated Emission Factor, \( EF \)**
- **Mitigated Emission Factor, \( E_{ext} \)**

#### Methodology

- **Maximum Material Handling Throughput**
- **Maximum Asphalt Cement/Binder Throughput**
- **Total Weight driven per year**
- **Maximum Weight of Load**

#### Emission Calculations

- **Average Vehicle Weight Per Trip**
- **Average  Miles Per Trip**

#### Summary

- **PTE of PM10**
- **PTE of PM2.5**

### Abbreviations

- **PM** = Particulate Matter
- **PM10** = Particulate Matter >10 um
- **PM2.5** = Particulate Matter >2.5 um
- **PTE** = Potential to Emit

---

**Table:**

<table>
<thead>
<tr>
<th>Process</th>
<th>Vehicle Type</th>
<th>Maximum Weight of Vehicle (tons)</th>
<th>Maximum Weight of Load (tons)</th>
<th>Maximum Trips per Year (trip/yr)</th>
<th>Maximum Material Handling Throughput (tons/yr)</th>
<th>Maximum Asphalt Cement/Binder Throughput (tons/yr)</th>
<th>Maximum Weight of Load (tons/yr)</th>
<th>Maximum Weight of Vehicle and Load (tons)</th>
<th>Maximum one-way distance (mi/trip)</th>
<th>Maximum one-way distance (miles/yr)</th>
<th>Maximum one-way distance (feet/trip)</th>
<th>Average Vehicle Weight Per Trip (ton/trip)</th>
<th>Average  Miles Per Trip (miles/trip)</th>
<th>Mitigated Emission Factor, ( E_{ext} ) = ( E \times \left( 1 - \frac{p}{4N} \right) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate/MAP Truck Enter Full</td>
<td>Dump truck (150 CY)</td>
<td>17.5</td>
<td>32.0</td>
<td>94.0</td>
<td>2.6E+03</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Asphalt Cement/Binder Truck Enter Full</td>
<td>Tanker truck (3500 gal)</td>
<td>17.5</td>
<td>36.0</td>
<td>98.0</td>
<td>2.1E+03</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
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<td>17.5</td>
<td>36.0</td>
<td>98.0</td>
<td>2.1E+03</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Fuel Oil Truck Enter Full</td>
<td>Tanker truck (3500 gal)</td>
<td>17.5</td>
<td>36.0</td>
<td>98.0</td>
<td>2.1E+03</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Fuel Oil Truck Leave Empty</td>
<td>Tanker truck (3500 gal)</td>
<td>17.5</td>
<td>36.0</td>
<td>98.0</td>
<td>2.1E+03</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Asphalt Concrete Truck Enter Full</td>
<td>Dump truck (150 CY)</td>
<td>17.5</td>
<td>24.0</td>
<td>81.0</td>
<td>7.3E+05</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Asphalt Concrete Truck Leave Empty</td>
<td>Dump truck (150 CY)</td>
<td>17.5</td>
<td>24.0</td>
<td>81.0</td>
<td>7.3E+05</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Total**

- **Mitigated Emission Factor, \( E_{ext} = E \times \left( 1 - \frac{p}{4N} \right) \)**
- **Unmitigated Emission Factor, \( EF \) = 0.00**
- **Mitigated Emission Factor, \( E_{ext} \) = 0.00**
- **Unmitigated Emission Factor, \( EF \) = 0.00**

**Calculation:**

- **Average Vehicle Weight Per Trip**
- **Average  Miles Per Trip**

**Unmitigated Emission Factor, \( EF \) = 0.00**  
**Mitigated Emission Factor, \( E_{ext} \) = 0.00**  
**Unmitigated Emission Factor, \( EF \) = 0.00**

**Methodology:**

- **Maximum Material Handling Throughput**
- **Maximum Asphalt Cement/Binder Throughput**
- **Total Weight driven per year**
- **Maximum Weight of Load**

**Summary:**

- **PTE of PM10**
- **PTE of PM2.5**

**Abbreviations:**

- **PM** = Particulate Matter
- **PM10** = Particulate Matter >10 um
- **PM2.5** = Particulate Matter >2.5 um
- **PTE** = Potential to Emit
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.

\[
\text{Limited VOC Emissions from the Sum of the Liquid Binders} = 46.83 \text{ tons/yr}
\]

### Volatile Organic Compounds

<table>
<thead>
<tr>
<th></th>
<th>Maximum weight % VOC solvent in binder</th>
<th>Weight % VOC solvent in binder that evaporates</th>
<th>VOC Solvent Usage Limitation (tons/yr)</th>
<th>Limited PTE of VOC (tons/yr)</th>
<th>Liquid Binder Adjustment Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)</td>
<td>25.3%</td>
<td>95.0%</td>
<td>49.29</td>
<td>46.83</td>
<td>1.053</td>
</tr>
<tr>
<td>Cut back asphalt medium cure (assuming kerosene solvent)</td>
<td>28.6%</td>
<td>70.0%</td>
<td>66.90</td>
<td>46.83</td>
<td>1.429</td>
</tr>
<tr>
<td>Cut back asphalt slow cure (assuming fuel oil solvent)</td>
<td>20.0%</td>
<td>25.0%</td>
<td>187.32</td>
<td>46.83</td>
<td>4.000</td>
</tr>
<tr>
<td>Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)</td>
<td>15.0%</td>
<td>46.4%</td>
<td>100.93</td>
<td>46.83</td>
<td>2.155</td>
</tr>
<tr>
<td>Other asphalt with solvent binder</td>
<td>25.9%</td>
<td>2.5%</td>
<td>1,873.20</td>
<td>46.83</td>
<td>40.0</td>
</tr>
</tbody>
</table>

**Worst Case Limited PTE of VOC = 46.83**

### 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

**Limited PTE of Total HAPs (tons/yr) = 12.21**

**Limited PTE of Single HAP (tons/yr) = 4.21 Xylenes**

### Hazardous Air Pollutant (HAP) Content (% by weight) For Various Petroleum Solvents

<table>
<thead>
<tr>
<th>Volatile Organic HAP</th>
<th>CAS#</th>
<th>Gasoline</th>
<th>Kerosene</th>
<th>Diesel (#2)</th>
<th>Fuel Oil</th>
<th>No. 2 Fuel Oil</th>
<th>No. 6 Fuel Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-Butadiene</td>
<td>106-99-0</td>
<td>3.70E-5%</td>
<td>3.70E-5%</td>
<td>3.70E-5%</td>
<td>3.70E-5%</td>
<td>3.70E-5%</td>
<td>3.70E-5%</td>
</tr>
<tr>
<td>2,2,4-Trimethylpentane</td>
<td>540-84-1</td>
<td>2.40%</td>
<td>2.40%</td>
<td>2.40%</td>
<td>2.40%</td>
<td>2.40%</td>
<td>2.40%</td>
</tr>
<tr>
<td>Acenaphthene</td>
<td>83-32-9</td>
<td>4.70E-5%</td>
<td>4.70E-5%</td>
<td>4.70E-5%</td>
<td>4.70E-5%</td>
<td>4.70E-5%</td>
<td>4.70E-5%</td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>208-96-8</td>
<td>4.50E-5%</td>
<td>4.50E-5%</td>
<td>4.50E-5%</td>
<td>4.50E-5%</td>
<td>4.50E-5%</td>
<td>4.50E-5%</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120-12-7</td>
<td>1.20E-6%</td>
<td>5.00E-5%</td>
<td>2.50E-5%</td>
<td>5.00E-5%</td>
<td>2.50E-5%</td>
<td>5.00E-5%</td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>1.90%</td>
<td>2.90E-4%</td>
<td>2.90E-4%</td>
<td>2.90E-4%</td>
<td>2.90E-4%</td>
<td>2.90E-4%</td>
</tr>
<tr>
<td>Benzo(a)anthracene</td>
<td>56-55-3</td>
<td>9.60E-7%</td>
<td>4.50E-7%</td>
<td>4.50E-7%</td>
<td>4.50E-7%</td>
<td>4.50E-7%</td>
<td>4.50E-7%</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>50-32-8</td>
<td>2.20E-6%</td>
<td>2.10E-7%</td>
<td>2.10E-7%</td>
<td>2.10E-7%</td>
<td>2.10E-7%</td>
<td>2.10E-7%</td>
</tr>
<tr>
<td>Benzo(g,h,i)perylene</td>
<td>191-24-2</td>
<td>1.20E-7%</td>
<td>5.70E-5%</td>
<td>5.70E-5%</td>
<td>5.70E-5%</td>
<td>5.70E-5%</td>
<td>5.70E-5%</td>
</tr>
<tr>
<td>Biphenyl</td>
<td>92-52-4</td>
<td>6.30E-4%</td>
<td>7.20E-5%</td>
<td>7.20E-5%</td>
<td>7.20E-5%</td>
<td>7.20E-5%</td>
<td>7.20E-5%</td>
</tr>
<tr>
<td>Chrysene</td>
<td>218-01-9</td>
<td>4.50E-7%</td>
<td>1.40E-6%</td>
<td>6.90E-4%</td>
<td>6.90E-4%</td>
<td>6.90E-4%</td>
<td>6.90E-4%</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>1.70%</td>
<td>0.07%</td>
<td>3.40E-4%</td>
<td>3.40E-4%</td>
<td>3.40E-4%</td>
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</tr>
<tr>
<td>Fluoranthene</td>
<td>206-44-0</td>
<td>7.10E-6%</td>
<td>5.90E-5%</td>
<td>1.40E-5%</td>
<td>1.40E-5%</td>
<td>1.40E-5%</td>
<td>1.40E-5%</td>
</tr>
<tr>
<td>Fluorene</td>
<td>86-73-7</td>
<td>4.20E-5%</td>
<td>8.60E-4%</td>
<td>1.90E-4%</td>
<td>1.90E-4%</td>
<td>1.90E-4%</td>
<td>1.90E-4%</td>
</tr>
<tr>
<td>Indeno(1,2,3-cd)pyrene</td>
<td>193-39-5</td>
<td>1.60E-7%</td>
<td>1.60E-7%</td>
<td>1.60E-7%</td>
<td>1.60E-7%</td>
<td>1.60E-7%</td>
<td>1.60E-7%</td>
</tr>
<tr>
<td>Methyl-tert-butylether</td>
<td>1634-04-4</td>
<td>0.33%</td>
<td>0.33%</td>
<td>0.33%</td>
<td>0.33%</td>
<td>0.33%</td>
<td>0.33%</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.28%</td>
<td>0.31%</td>
<td>0.26%</td>
<td>0.22%</td>
<td>0.22%</td>
<td>0.22%</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
<td>2.40%</td>
<td>2.40%</td>
<td>2.40%</td>
<td>2.40%</td>
<td>2.40%</td>
<td>2.40%</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>85-01-8</td>
<td>8.60E-6%</td>
<td>8.80E-4%</td>
<td>7.90E-4%</td>
<td>7.90E-4%</td>
<td>7.90E-4%</td>
<td>7.90E-4%</td>
</tr>
<tr>
<td>Pyrene</td>
<td>129-00-0</td>
<td>2.40E-6%</td>
<td>4.60E-5%</td>
<td>2.90E-5%</td>
<td>2.90E-5%</td>
<td>2.90E-5%</td>
<td>2.90E-5%</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>6.10%</td>
<td>0.19%</td>
<td>6.20E-4%</td>
<td>6.20E-4%</td>
<td>6.20E-4%</td>
<td>6.20E-4%</td>
</tr>
<tr>
<td>Total Xylenes</td>
<td>1339-20-7</td>
<td>9.00%</td>
<td>0.50%</td>
<td>0.23%</td>
<td>0.23%</td>
<td>0.23%</td>
<td>0.23%</td>
</tr>
</tbody>
</table>

**Total Organic HAPs = 26.08%**

**Worst Single HAP**

- **Xylenes** = 9.00%
- **Naphthalene** = 3.01%
- **Xylenes** = 1.29%
- **Xylenes** = 0.66%
- **Xylenes** = 0.19%

**Methodology**

Limited PTE of VOC (tons/yr) = [Maximum weight % VOC solvent in binder] * [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)]

**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: 057-43578-03289
Reviewer: Shelby O'Neal

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:

Gasoline Throughput = 0 gallons/day
= 0.0 kgal/yr

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Emission Factor (lb/kgal of throughput)</th>
<th>PTE of VOC (tons/yr)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filling storage tank (balanced submerged filling)</td>
<td>0.3</td>
<td>0.00</td>
</tr>
<tr>
<td>Tank breathing and emptying</td>
<td>1.0</td>
<td>0.00</td>
</tr>
<tr>
<td>Vehicle refueling (displaced losses - controlled)</td>
<td>1.1</td>
<td>0.00</td>
</tr>
<tr>
<td>Spillage</td>
<td>0.7</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>0.00</strong></td>
</tr>
</tbody>
</table>

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 |
| Limited PTE of Total HAPs (tons/yr) = | 0.00 |
| Limited PTE of Single HAP (tons/yr) = | 0.00 Xylenes |

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)]


Abbreviations
VOC = Volatile Organic Compounds
PTE = Potential to Emit
February 4, 2021

Robert Beyke
Milestone Contractors, L.P.
PO Box 421459
Indianapolis, IN 46242

Re: Public Notice
Milestone Contractors, L.P.
Permit Level: FESOP – Significant Permit Revision
(Minor PSD/EO)
Permit Number: 057-43578-03289

Dear Mr. Robert Beyke:

Enclosed is the Notice of 30-Day Period for Public Comment for your draft air permit.

Our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person. The Notice of 30-Day Period for Public Comment has also been sent to the OAQ Permits Branch Interested Parties List and, if applicable, your Consultant/Agent and/or Responsible Official/Authorized Individual.

The preliminary findings, including the draft permit, technical support document, emission calculations, and other supporting documents, are available electronically at:

IDEM’s online searchable database: [http://www.in.gov/apps/idem/caats/](http://www.in.gov/apps/idem/caats/) . Choose Search Option by Permit Number, then enter permit 43578

and

IDEM’s Virtual File Cabinet (VFC): [http://www.IN.gov/idem](http://www.IN.gov/idem) . Enter VFC in the search box, then search for permit documents using a variety of criteria, such as Program area, date range, permit #, Agency Interest Number, or Source ID.

The Public Notice period will begin the date the Notice is published on the IDEM Official Public Notice website. Publication has been requested and is expected within 2-3 business days. You may check the exact Public Notice begins and ends date here: [https://www.in.gov/idem/5474.htm](https://www.in.gov/idem/5474.htm)

Please note that as of April 17, 2019, IDEM is no longer required to publish the notice in a newspaper.

OAQ has submitted the draft permit package to the Carmel Clay Public Library, 55 4th Avenue SE in Carmel, IN 46032. 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 draft permit 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 Shelby O’Neal, 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 3-8578 or dial (317) 233-8578.

Sincerely,

Kathy Bourquein

Kathy Bourquein
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover Letter access via website 8/10/2020
February 4, 2021
To: Carmel Clay Public Library

From: Jenny Acker, 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: 057-43578-03289

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
- 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 Smiddle-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 updated 4/2019
Notice of Public Comment

February 4, 2021

Milestone Contractors, L.P.
057-43578-03289

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 posted on IDEM’s Public Notice website at https://www.in.gov/idem/5474.htm.

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 Joanne Smiddie-Brush with the Air Permits Administration Section at 1-800-451-6027, ext. 3-0185 or via e-mail at JBRUSH@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 Letter 2/28/2020
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<th>Postage</th>
<th>Handling Charges</th>
<th>Act. Value (If Registered)</th>
<th>Insured Value</th>
<th>Due Send if COD</th>
<th>R.R. Fee</th>
<th>S.D. Fee</th>
<th>S.H. Fee</th>
<th>Rest. Del. Fee</th>
<th>Remarks</th>
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<tr>
<td>1</td>
<td></td>
<td>Robert Beyke, Milestone Contractors, L.P., PO Box 421459, Indianapolis IN 462421459 (Source CAATS)</td>
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<td>2</td>
<td></td>
<td>Carmel Clay Public Library 55 4th Ave SE Carmel IN 46032-2297 (Library)</td>
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<td>3</td>
<td></td>
<td>Hamilton County Health Department 18030 Foundation Dr, Ste A Noblesville IN 46060-5405 (Health Department)</td>
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<tr>
<td>4</td>
<td></td>
<td>Indianapolis City Council and Mayors office 200 East Washington Street, Room E Indianapolis IN 46204 (Local Official)</td>
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<tr>
<td>5</td>
<td></td>
<td>Hamilton County Board of Commissioners One Hamilton County Square, Suite 157 Noblesville IN 46064 (Local Official)</td>
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<td>Environmental Field Services, Inc. 1302 N Meridian St, Ste 310 Indianapolis IN 46202-2349 (Affected Party)</td>
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<td>Soil Stabilization, Inc. 15530 Stoney Creek Way Noblesville IN 46060 (Affected Party)</td>
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<td>Old National Bank PO BOX 718 Mail Stop ONP-007B Evansville IN 47705 (Affected Party)</td>
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<td>Scott Underwood The Herald Bulletin 1133 Jackson St Anderson IN 46016 (Affected Party)</td>
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