INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

To:	Interested Parties
Date:	September 17, 2014
From:	Matthew Stuckey, Chief Permits Branch Office of Air Quality
Source Name:	Milestone Contractors LP
Permit Level:	FESOP
Permit Number:	135-34588-03158
Source Location:	5950 South Belmont Ave Indianapolis, Indiana 46217
Type of Action Taken:	Modification at an existing source Revisions to permit requirements

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above.

The final decision is available on the IDEM website at: http://www.in.gov/apps/idem/caats/
To view the document, select Search option 3, then enter permit 34588.

If you would like to request a paper copy of the permit document, please contact IDEM's central file room:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

(continues on next page)

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

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

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

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

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

IDEM

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Robert J. Beyke
Milestone Contractors, L.P.
5950 South Belmont Avenue
Indianapolis, IN 46217

September 17,2014

Re: 135-34588-03158
Significant Revision to
F 135-29992-03158

Dear Robert J. Beyke:

Milestone Contractors, L.P. was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F135-29992-03158 on August 24, 2011 for a stationary batch-mix, hot-mix, asphalt plant and cold-mix production operation located at 1972 West State Road 28, Ridgeville, Indiana 47380. On May 29, 2014, the Office of Air Quality (OAQ) received an application from the source requesting to include the use of blast furnace slag, steel slag, and recycled asphalt shingles as additional process material options in their aggregate mix. Milestone has also requested approval to perform onsite RAP crushing. The attached Technical Support Document (TSD) provides additional explanation of the changes to the source/permit. 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).

The following construction conditions are applicable to the proposed project:

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

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

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

4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this 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. Please find attached the entire FESOP as revised. The permit references the below listed attachments. 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 revision:

Attachment A: Fugitive Dust Control Plan
Attachment B: 40 CFR 60, Subpart I, New Source Performance Standards for for Hot Mix Asphalt Facilities
Attachment C: 40 CFR 60, Subpart OOO, New Source Performance Standards 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/.

Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Nida Habeeb of my staff at 317-234-8531or 1-800-451-6027, and ask for extension 4-8531.

Sincerely,

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

Attachments: Technical Support Document and revised permit

JK/NH

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

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Commissioner

Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

Milestone Contractors, L.P.
1972 West State Road 28
Ridgeville, Indiana 47380

(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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-8-11.1, applicable to those conditions

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

Operation Permit No.: F135-29992-03158	
Issued by: *Original Signed by:* Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: August 24, 2011 Expiration Date: August 24, 2021

Administrative Amendment No.: 135-32620-03158, issued January 30, 2013

Significant Permit Revision No.: 135-34588-03158	
Issued by: Jason R. Krawczyk, Section Chief Permits Branch Office of Air Quality	Issuance Date: September 17,2014 Expiration Date: August 24,2021

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary batch-mix, hot-mix, asphalt plant and a cold-mix production operation.

Source Address:	1972 West State Road 28, Ridgeville, Indiana 47380
General Source Phone Number:	317-788-6885
SIC Code:	2951(Asphalt Paving Mixtures and Blocks)
County Location:	Randolph
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) stationary, batch-mix, hot-mix asphalt plant, consisting of the following

(1) One (1) batch mixer, identified as EU#10, constructed in 2002, approved for modification 2014, with a maximum throughput capacity of two hundred (200) tons of raw material per hour, processing blast furnace slag, steel slag, and recycled asphalt shingles in the aggregate mix, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, and exhausting to Stack SV#1.

(2) one (1) aggregate dryer, identified as EU#4, equipped with one (1) burner, identified as EU#5, constructed in 2002 and modified in 2006, having a maximum heat input capacity of eighty-five (85.0) million British thermal units per hour and firing natural gas, No. 2 fuel oil, or waste oil, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, and exhausting to Stack SV#1,

(3) Material handling, screening, and conveying operations, constructed in 2002, uncontrolled and exhausting to the outside atmosphere, and consisting of the following:

(A) One (1) cold feed system, constructed prior to 2002, with a maximum throughput capacity of two hundred fifty (250) tons of asphalt per hour, and consisting of:

(i) Six (6) cold feed bins, identified as EU#1;

(ii) One (1) conveyor to the dryer, identified as EU#3;

(iii) One screen deck, identified as EU#7;

(iv) Hot aggregate storage bins, identified as EU#8; and

(v) One (1) aggregate weigh hopper, identified as EU#9;

(B) One (1) hot asphalt storage and conveyor system, having a maximum throughput capacity of two hundred (200) tons of asphalt per hour, and consisting of:

(i) One (1) drag-slat conveyor, identified as EU#11; and

(ii) Two (2) hot asphalt storage bins, identified as EU#35 and EU#36, constructed in 1985; and

(iii) one (1) hot asphalt storage bin, identified as EU#12, constructed in 1996.

(4) One (1) Recycled asphalt pavement (RAP) system, constructed in 2006, with a maximum throughput capacity of thirty (30) tons per hour, uncontrolled and exhausting to the outside atmosphere, and consisting of:

(A) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2014, with a maximum throughput capacity of 250 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 is considered a nonroad engine.

(B) One (1) RAP feed bin, identified as EU#37, and two (2) feeder conveyors;

(C) One (1) lump breaker, identified as EU#38, with one (1) collector conveyor;

(D) One (1) RAP scale conveyor, identified as EU#39;

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

(5) One (1) aggregate storage area, approved for modification 2014, with a maximum combined storage area of 5.0 acres, including:

(A) Limestone, dolomite, sand and gravel storage piles, with a combined maximum anticipated pile size of 2.75 acres;

(B) Recycled asphalt pavement (RAP) storage pile(s), with a maximum

anticipated pile size of 2.25 acres;

(C) Blast furnace and/or steel slag storage pile(s), with a maximum anticipated pile size of 0.30 acres; and

(D) Recycled asphalt shingles (RAS) piles, with a maximum anticipated pile size of 0.15 acres.

Under 40 CFR 60.90, Subpart I, this batch-mix, hot-mix asphalt operation is considered an affected facility.

(b) One (1) cold-mix cutback asphalt production operation, identified as EU#11, constructed in 2002, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, exhausting to Stack SV#1, and including:

(1) cold-mix (stockpile mix) asphalt storage piles;

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

This stationary source also includes the following insignificant activities:

(a) One (1) liquid asphalt cement hot oil heating system, including the following:

(1) One (1) hot oil heater, identified as EU#13A, constructed in 1995, with a maximum heat input capacity of seven hundred thousandths (0.700) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV2; [326 IAC 6-2]

(2) One (1) 30,000 gallon liquid asphalt storage tank, identified as EU#13B, constructed in 1995, uncontrolled and exhausting to Stack SV2.

(b) One (1) hot asphalt storage and slat conveyor transfer heater, identified as EU#33, with a maximum heat input capacity of five hundred thousandths (0.500) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV4; [326 IAC 6-2]

(c) One (1) 20,000 gallon liquid asphalt storage tank, identified as EU#34, constructed in 1985, equipped with an electric hot oil heater, uncontrolled and exhausting to Stack SV3;

(d) One (1) 8,000 gallon No. 2 fuel oil storage tank, identified as EU#32, constructed in 1985, uncontrolled and exhausting to the outside atmosphere;

(e) Miscellaneous VOC and HAP Storage tanks, each with capacities less than or equal to 1,000 gallons, and annual throughputs of less than 12,000 gallons, uncontrolled and exhausting to the atmosphere;

(f) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids;

(g) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(h) Natural gas pressure regulator vents, excluding venting at oil and gas production facilities;

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

(j) Paved roads and parking lots with public access. [326 IAC 6-5]

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) for 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, F135-29992-03158, 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:

(1) it contains a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

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

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

(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) If required by specific condition(s) in Section D of this permit, 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.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. 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).

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

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

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission

limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance 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 F135-29992-03158 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:

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

and

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air

pollution control equipment), practices, or operations regulated or required under this permit;

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

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

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

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

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

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

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

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

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

(a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

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

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

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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) and greenhouse gases (GHGs), 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.

(4) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) 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, included as Attachment A.

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

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
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.9 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.10 Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

(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.12 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.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

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

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

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

no later than ninety (90) days after the date of issuance of this permit.

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

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

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

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

C.14 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.15 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.16 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.17 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.18 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.19 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) stationary, batch-mix, hot-mix asphalt plant, consisting of the following

(1) One (1) batch mixer, identified as EU#10, constructed in 2002, approved for modification 2014, with a maximum throughput capacity of two hundred (200) tons of raw material per hour, processing blast furnace slag, steel slag, and recycled asphalt shingles in the aggregate mix, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, and exhausting to Stack SV#1.

(2) one (1) aggregate dryer, identified as EU#4, equipped with one (1) burner, identified as EU#5, constructed in 2002 and modified in 2006, having a maximum heat input capacity of eighty-five (85.0) million British thermal units per hour and firing natural gas, No. 2 fuel oil, or waste oil, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, and exhausting to Stack SV#1,

(3) Material handling, screening, and conveying operations, constructed in 2002, uncontrolled and exhausting to the outside atmosphere, and consisting of the following:

(A) One (1) cold feed system, constructed prior to 2002, with a maximum throughput capacity of two hundred fifty (250) tons of asphalt per hour, and consisting of:

(i) Six (6) cold feed bins, identified as EU#1;

(ii) One (1) conveyor to the dryer, identified as EU#3;

(iii) One screen deck, identified as EU#7;

(iv) Hot aggregate storage bins, identified as EU#8; and

(v) One (1) aggregate weigh hopper, identified as EU#9;

(B) One (1) hot asphalt storage and conveyor system, having a maximum throughput capacity of two hundred (200) tons of asphalt per hour, and consisting of:

(i) One (1) drag-slat conveyor, identified as EU#11; and

(ii) Two (2) hot asphalt storage bins, identified as EU#35 and EU#36, constructed in 1985; and

(iii) one (1) hot asphalt storage bin, identified as EU#12, constructed in 1996.

(4) One (1) Recycled asphalt pavement (RAP) system, constructed in 2006, with a maximum throughput capacity of thirty (30) tons per hour, uncontrolled and exhausting to the outside atmosphere, and consisting of:

(A) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2014, with a maximum throughput capacity of 250 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 is considered a nonroad engine.

(B) One (1) RAP feed bin, identified as EU#37, and two (2) feeder conveyors;

(C) One (1) lump breaker, identified as EU#38, with one (1) collector conveyor;

(D) One (1) RAP scale conveyor, identified as EU#39;

(5) One (1) aggregate storage area, approved for modification 2014, with a maximum combined storage area of 5.0 acres, including:

(A) Limestone, dolomite, sand and gravel storage piles, with a combined maximum anticipated pile size of 2.75 acres;

(B) Recycled asphalt pavement (RAP) storage pile(s), with a maximum anticipated pile size of 2.25 acres;

(C) Blast furnace and/or steel slag storage pile(s), with a maximum anticipated pile size of 0.30 acres; and

(D) Recycled asphalt shingles (RAS) piles, with a maximum anticipated pile size of 0.15 acres.

Under 40 CFR 60.90, Subpart I, this batch-mix, hot-mix asphalt operation is considered an affected facility.

(b) One (1) cold-mix cutback asphalt production operation, identified as EU#11, constructed in 2002, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, exhausting to Stack SV#1, and including:

(1) cold-mix (stockpile mix) asphalt storage piles;

Insignificant Activities

(a) One (1) liquid asphalt cement hot oil heating system, including the following:

(1) One (1) hot oil heater, identified as EU#13A, constructed in 1995, with a maximum heat input capacity of seven hundred thousandths (0.700) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil,

uncontrolled and exhausting to Stack SV2; [326 IAC 6-2]

(b) One (1) hot asphalt storage and slat conveyor transfer heater, identified as EU#33, with a maximum heat input capacity of five hundred thousandths (0.500) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV4; [326 IAC 6-2]

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

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

D.1.1 PSD Minor Limits: PM [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

(a) The amount of hot-mix asphalt processed shall not exceed 492,792 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) PM emissions from the dryer/mixer shall not exceed eight hundred eighty-two thousandths (0.882) pounds of PM per ton of asphalt produced.

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

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

Pursuant to 326 IAC 2-8-4(FESOP) and in order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the dryer/mixer shall be limited as follows:

(a) The amount of hot-mix asphalt processed shall not exceed 492,792 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) PM10 emissions from the dryer/mixer shall not exceed three hundred sixty-two thousandths (0.362) pounds of PM10 per ton of asphalt produced.

(c) PM2.5 emissions from the dryer/mixer shall not exceed three hundred eighty-three thousandths (0.383) pounds of PM2.5 per ton of asphalt produced.

(d) NOx emissions from the dryer/mixer shall not exceed one hundred and fifty-two thousandths (0.152) pounds of NOx per ton of asphalt produced.

(e) VOC emissions from the dryer/mixer shall not exceed thirty-six thousandths (0.036) pounds of VOC per ton of asphalt produced.

(f) CO emissions from the dryer/mixer shall not exceed forty hundredths (0.40) pounds of CO per ton of asphalt produced.

Compliance with these limits, combined with the limited potential to emit PM10, PM2.5, NOx,

VOC, and CO, from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5, NOx, VOC, and CO to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD) not applicable.

Compliance with the limit in condition Conditions D.1.2(a) and (e) 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 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 (PSD), 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable, SO2 and HAP emissions from the dryer/mixer shall be limited as follows:

(a) Fuel and Slag Specifications

(1) The sulfur content of the No. 2 distillate fuel oil shall not exceed five tenths percent (0.5%) by weight;

(2) The sulfur content of the waste oil shall not exceed seventy-five hundredths percent (0.75%) by weight;

(3) The waste oil combusted shall not contain more than 1.02% ash, 0.200% chlorine, and 0.01% lead;

(4) HCl emissions from the dryer/mixer shall not exceed sixty-six ten-thousandths (0.0066) pounds of HCl per gallon 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 Limitation
When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer burner the usage of fuel shall be limited as follows:

(1) Natural gas usage shall not exceed 745 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) No. 2 distillate fuel oil usage shall not exceed 2,400,971 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) Waste oil usage shall not exceed 1,500,200 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(4) The blast furnace slag usage shall not exceed 30,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) Multiple Fuel Usage Limitations
When combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, emissions from the dryer/mixer shall be limited as follows:

(1) Sulfur dioxide (SO2) emissions from the dryer/mixer burner shall not exceed ninety-six and thirty-three (96.33) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(d) Asphalt Shingle Usage Limitations:
Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAPs)) not applicable, 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 and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of SO2 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 shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) 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, identified as EU#13A, and the hot asphalt storage and slat conveyor transfer heater, identified as EU#33, each, 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 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the recycled asphalt pavement (RAP) system shall not exceed forty and four hundredths (40.04) pounds per hour when operating at a process weight rate of thirty (30) tons (or 60,000 pounds) per hour.

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

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

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.1.6 Sulfur Dioxide (SO2) Limits [326 IAC 7-1.1-1][326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), the Permittee shall comply with

the following:

(a) The sulfur dioxide (SO2) emissions from the dryer/mixer burner shall not exceed five tenths (0.5) pounds per MMBtu when using distillate oil.

(b) 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.

(c) 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 this facility and their 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

D.1.8 Particulate Matter (PM, PM10, and PM2.5) Control

(a) In order to comply with Conditions D.1.1(b), and D.1.2(b)(c), baghouse (EU#19), and cyclone (EU#16), 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 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]

(a) In order to demonstrate compliance with Condition D.1.1(b), D.1.2(b), and D.1.2(c), the Permittee shall perform PM, PM10, and PM2.5 testing of the dryer/mixer not later than five (5) years from the most recent valid compliance demonstration, utilizing methods approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

(b) In order to demonstrate compliance with Condition D.1.3(a)(6), when using blast furnace slag, the Permittee shall perform SO2 testing for the aggregate dryer not later than one hundred eighty (180) days of initial use of blast furnace slag in the aggregate mix, utilizing methods as approved by the Commissioner. Testing shall only be performed if the company has not previously performed SO2 testing while using blast furnace slag in the aggregate mix at one of their other Indiana facilities.

D.1.10 Multiple Fuel and Slag Usage / Sulfur Dioxide (SO2) Emissions

(a) In order to comply with the Condition D.1.3(c)(1), when combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, in conjunction with the use of slag in the aggregate mix, the Permittee shall limit fuel and slag usage according to the following formulas:

Sulfur Dioxide Emission Calculation

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

Where:

S = tons of sulfur dioxide emissions for a 12-month consecutive period
G = million cubic feet of natural gas used in the last 12 months
O = gallons of No. 2 distillate fuel oil used in last 12 months with less than or equal to 0.5% sulfur content
W = gallons of waste oil used in last 12 months with less than or equal to 0.75% sulfur
B = tons of blast furnace slag used in the last 12 months
T = tons of steel slag used in the last 12 months
E_G = 0.60 lbs/million cubic feet of natural gas
E_O = 0.071 lbs/gallon of No. 2 distillate fuel oil
E_W = 0.1103 lbs/gallon of waste oil
E_B = 0.74 lbs/ton of blast furnace slag used
E_T = 0.0014 lbs/ton of steel slag used

D.1.11 Sulfur Dioxide 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.1.5 shall be determined utilizing one of the following options.

(1) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five tenths (0.5) pounds per million British thermal units heat input when combusting No. 2 distillate fuel oil, or one and six tenths (1.6) pounds per million British thermal units heat input when combusting waste oil, by:

(A) Providing vendor analysis of heat content and sulfur content of the fuel delivered, if accompanied by a vendor certification; or

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

(i) Fuel samples may be collected from the fuel tank immediately after the fuel tank is filled and before any fuel is combusted; and

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

(2) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the seventy-five (75) MMBtu per hour dryer 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 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)(6) shall be determined utilizing one of the following options. Pursuant to 326 IAC 2-8-4 (FESOP), compliance shall be demonstrated on a thirty (30) day calendar-month average.

(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.

(3) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 100.0 MMBtu/hr dryer burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, or other procedures approved by IDEM, OAQ.

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

Steel Slag

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

(1) Maintaining all records of vendor analyses or certifications of steel slag delivered; or

(2) Analyzing a sample of each 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.

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

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

D.1.12 Chlorine Content

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

D.1.13 Shingle Asbestos Content

Pursuant to 326 IAC 2-8-4, compliance with Condition D.1.3(d) shall be determined utilizing one of the following options: FESOP Limits: SO2, NOx, and HAPs shall be determined utilizing one of the following options:

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

(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 factory second shingles and/or post consumer waste shingles delivery to determine the asbestos content of the 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][326 IAC 2-8-5(a)(1)]

D.1.14 Visible Emissions Notations

(a) Visible emission notations from the conveyors, screens, material transfer points, crusher, and dryer/mixer stack (SV#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 steps. 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 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the aggregate dryer/mixer, at least once per day when the aggregate dryer/mixer is in operation. When, for any one reading, the pressure drop across the baghouse is outside of the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between one (1.0) and eight (8.0) inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

D.1.16 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.

D.1.17 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.1.18 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.1.5, D.1.10, D.1.11, D.1.12 and D.1.13, the Permittee shall maintain records in accordance with (1) through (12) below. Records maintained for (1) through (12) below shall be taken monthly and shall be complete and sufficient to establish compliance with the limits established in Conditions, D.1.5, 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 oxide emission rates for each fuel used at the source since the last compliance determination period;

(3) Actual waste oil usage, chlorine content, and equivalent hydrogen chloride emission rate 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 chlorine 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:

(A) Blast furnace and steel slag supplier certifications;

(B) The name of the blast furnace and steel slag supplier; and

(C) 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.

(11) 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:

(12) 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.

(d) To document the compliance status with Condition D.1.14, the Permittee shall maintain records of visible emission notations of the dryer/mixer stack (SV#1) exhaust once per day. 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).

(e) To document the compliance status with Condition D.1.15, the Permittee shall maintain records once per day of the pressure drop during normal operation. The Permittee shall include in its daily record when the pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).

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

D.1.19 Reporting Requirements

(a) A quarterly summary 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 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 D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(b) One (1) cold-mix cutback asphalt production operation, identified as EU#11, constructed in 2002, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, exhausting to Stack SV#1, and including:

(1) cold-mix (stockpile mix) asphalt 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]

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 binders shall not exceed 51.96 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 twenty-five and three tenths percent (25.3%) of the liquid binder by weight of VOC solvent and ninety-five percent (95.0%) by weight of VOC solvent evaporating;

(2) Cut back asphalt medium cure, containing a maximum of twenty-eight and six tenths percent (28.6%) of the liquid binder by weight of VOC solvent and seventy percent (70.0%) by weight of VOC solvent evaporating;

(3) Cut back asphalt slow cure, containing a maximum of twenty percent (20.0%) of the liquid binder by weight of VOC solvent and twenty-five percent (25.0%) by weight of VOC solvent evaporating;

(4) Emulsified asphalt with solvent, containing a maximum of fifteen percent (15.0%) of liquid binder by weight of VOC solvent and forty-six and four tenths percent (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; and

(5) Other asphalt with solvent binder, containing a maximum twenty-five and nine tenths percent (25.9%) of the liquid binder of VOC solvent and two and five tenths percent (2.5%) by weight of the VOC solvent evaporating.

(c) When using only one type of liquid binder per twelve (12) consecutive month period, the usage of liquid binder shall be limited as follows:

(1) The amount of VOC solvent used in rapid cure cutback asphalt shall not exceed fifty-four and seventy hundredths (54.70) 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 seventy-four and twenty-three hundredths (74.23) 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 two hundred seven and eighty-four hundredths (207.84) 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 one hundred eleven and ninety-nine hundredths (111.99) 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 two thousand seventy-eight and forty-four hundredths (2,078.44) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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

(1) The VOC solvent allotments in (1) through (5) above shall be adjusted when more than one type of binder is used per twelve (12) consecutive month period with compliance determined at the end of each month. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment factor listed in the table that follows.

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

Type of binder	adjustment factor
cutback asphalt rapid cure	1.053
cutback asphalt medium cure	1.429
cutback asphalt slow cure	4.0
emulsified asphalt	2.155
other asphalt	40.0

Compliance with these limits, combined with the VOC and HAPs from all other emission units at this source emissions 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 shall render 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD)) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable not applicable.

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, 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) Cutback asphalt binder usage in the production of cold mix asphalt since the last compliance determination period;

(3) VOC solvent content by weight of the cutback asphalt binder used in the production of cold mix asphalt since the last compliance determination period; and

(4) 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 D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(4) One (1) Recycled asphalt pavement (RAP) system, constructed in 2006, with a maximum throughput capacity of thirty (30) tons per hour, uncontrolled and exhausting to the outside atmosphere, and consisting of:

(A) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2014, with a maximum throughput capacity of 250 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 is considered a nonroad engine.

(B) One (1) RAP feed bin, identified as EU#37, and two (2) feeder conveyors;

(C) One (1) lump breaker, identified as EU#38, with one (1) collector conveyor;

(D) One (1) RAP scale conveyor, identified as EU#39;

(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.3.1 Particulate Emission Limits [326 IAC 6-3]

(a) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the diesel fuel-fired portable RAP crusher and screener shall not exceed 60.96 pounds per hour when operating at a process weight rate of 250 tons (or 500,000 pounds) per hour.

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

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

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

(b) Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emission may exceed the emission limit listed above, provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

D.3.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for this facility. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

SECTION E.1 FACTILITY OPERATION REQUIREMENTS

Emissions Unit Description:

(a) One (1) stationary, batch-mix, hot-mix asphalt plant, consisting of the following

(1) One (1) batch mixer, identified as EU#10, constructed in 2002, approved for modification 2014, with a maximum throughput capacity of two hundred (200) tons of raw material per hour, processing blast furnace slag, steel slag, and recycled asphalt shingles in the aggregate mix, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, and exhausting to Stack SV#1.

(2) one (1) aggregate dryer, identified as EU#4, equipped with one (1) burner, identified as EU#5, constructed in 2002 and modified in 2006, having a maximum heat input capacity of eighty-five (85.0) million British thermal units per hour and firing natural gas, No. 2 fuel oil, or waste oil, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, and exhausting to Stack SV#1,

(3) Material handling, screening, and conveying operations, constructed in 2002, uncontrolled and exhausting to the outside atmosphere, and consisting of the following:

(A) One (1) cold feed system, constructed prior to 2002, with a maximum throughput capacity of two hundred fifty (250) tons of asphalt per hour, and consisting of:

(i) Six (6) cold feed bins, identified as EU#1;

(ii) One (1) conveyor to the dryer, identified as EU#3;

(iii) One screen deck, identified as EU#7;

(iv) Hot aggregate storage bins, identified as EU#8; and

(v) One (1) aggregate weigh hopper, identified as EU#9;

(B) One (1) hot asphalt storage and conveyor system, having a maximum throughput capacity of two hundred (200) tons of asphalt per hour, and consisting of:

(i) One (1) drag-slat conveyor, identified as EU#11; and

(ii) Two (2) hot asphalt storage bins, identified as EU#35 and EU#36, constructed in 1985; and

(iii) one (1) hot asphalt storage bin, identified as EU#12, constructed in 1996.

(4) One (1) Recycled asphalt pavement (RAP) system, constructed in 2006, with a maximum throughput capacity of thirty (30) tons per hour, uncontrolled and exhausting to the outside atmosphere, and consisting of:

(A) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2014, with a maximum throughput capacity of 250 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 is considered a nonroad engine.

(B) One (1) RAP feed bin, identified as EU#37, and two (2) feeder conveyors;

(C) One (1) lump breaker, identified as EU#38, with one (1) collector conveyor;

(D) One (1) RAP scale conveyor, identified as EU#39;

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

(5) One (1) aggregate storage area, approved for modification 2014, with a maximum combined storage area of 5.0 acres, including:

(A) Limestone, dolomite, sand and gravel storage piles, with a combined maximum anticipated pile size of 2.75 acres;

(B) Recycled asphalt pavement (RAP) storage pile(s), with a maximum anticipated pile size of 2.25 acres;

(C) Blast furnace and/or steel slag storage pile(s), with a maximum anticipated pile size of 0.30 acres; and

(D) Recycled asphalt shingles (RAS) piles, with a maximum anticipated pile size of 0.15 acres.

Under 40 CFR 60.90, Subpart I, this batch-mix, hot-mix asphalt operation is considered an affected facility.

(b) One (1) cold-mix cutback asphalt production operation, identified as EU#11, constructed in 2002, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, exhausting to Stack SV#1, and including:

(1) cold-mix (stockpile mix) asphalt storage piles;

Insignificant Activities:

(a) One (1) liquid asphalt cement hot oil heating system, including the following:

(1) One (1) hot oil heater, identified as EU#13A, constructed in 1995, with a maximum heat input capacity of seven hundred thousandths (0.700) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV2; [326 IAC 6-2]

(b) One (1) hot asphalt storage and slat conveyor transfer heater, identified as EU#33, with a maximum heat input capacity of five hundred thousandths (0.500) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV4; [326 IAC 6-2]

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

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

E.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

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

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

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

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart I (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart I:

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

E.1.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

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

SECTION E.2 FACILITY OPERATION REQUIREMENTS

Emissions Unit Description:

(4) One (1) Recycled asphalt pavement (RAP) system, constructed in 2006, with a maximum throughput capacity of thirty (30) tons per hour, uncontrolled and exhausting to the outside atmosphere, and consisting of:

(A) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2014, with a maximum throughput capacity of 250 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 is considered a nonroad engine.

(B) One (1) RAP feed bin, identified as EU#37, and two (2) feeder conveyors;

(C) One (1) lump breaker, identified as EU#38, with one (1) collector conveyor;

(D) One (1) RAP scale conveyor, identified as EU#39;

Under 40 CFR 60, Subpart OOO, New Source Performance Standards for Nonmetallic Mineral Processing Plants, this 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.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

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

(b) Pursuant to 40 CFR 60.10, 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 NSPS Subpart OOO Requirements - Standards of Performance for Nonmetallic Mineral Processing Plants [40 CFR Part 60, Subpart OOO] [326 IAC 12-1]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart OOO (included as Attachment C of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart OOO:

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

E.2.3 Testing Requirements [40 CFR Part 60, Subpart I] [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 stack testing 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. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. 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: 1972 West State Road 28, Ridgeville, Indiana 47380
FESOP Permit No.: F135-29992-03158

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

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

Signature:

Printed Name:

Title/Position:

Date:

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road 28, Ridgeville, Indiana 47380
FESOP Permit No.: F135-29992-03158

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

□ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16

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

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

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

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

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

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

FESOP Quarterly Report

Source Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road 28, Ridgeville, Indiana 47380
FESOP Permit No.: F135-29992-03158
Facility: Dryer/mixer burner
Parameter: Fuel & Slag Usage/ Sulfur dioxide (SO2) emissions
Emission Limits: *Sulfur dioxide (SO_2)* emissions shall not exceed 96.33 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.09.

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

Fuel and Slag Type (units)	Fuel and Slag Usage Limit (per 12 consecutive month period)
Natural Gas (million cubic feet)	745
No. 2 Distillate Fuel Oil ≤ 0.5 wt% sulfur (gallons)	2,400,971
Waste Oil ≤ 0.75 wt% sulfur (gallons)	1,500,200
Blast Furnace Slag (tons)	30,000

Facility: Cold-mix Asphalt Production
Parameter: Binder Usage / VOC Emissions
Emission Limits: *Volatile Organic Compound (VOC)* emissions from the sum of the binders shall not exceed 52.0 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:

Type of Binder	Binder VOC Limits (tons per 12 consecutive month period)
Cutback Asphalt Rapid Cure	54.70
Cutback Asphalt Medium Cure	74.23
Cutback Asphalt Slow Cure	207.84
Emulsified Asphalt	111.99
Other Asphalt	2,078.44

FESOP Quarterly Report - Fuel & Slag Usage / Sulfur dioxide (SO2) emissions

QUARTER: ____________ YEAR: _____________

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

☐ No deviation occurred in this reporting period.
☐ Deviation/s occurred in this reporting period.

Submitted by:______________________________ Date: ____________________
Title / Position: _____________________________ Phone:___________________

Deviation has been reported on: Signature:____

FESOP Quarterly Report - Liquid Binder (Asphalt Emulsion) Usage / VOC Emissions____________ Page 3 of 3

QUARTER: ____________ YEAR: _____________

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

☐ No deviation occurred in this reporting period.
☐ Deviation/s occurred in this reporting period.
Deviation has been reported on: _________________

Submitted by:____ Date:_________________
Title / Position:_____________________________________ Phone: _______________
Signature: ____

VOC Emitted (tons/year) = <u>VOC solvent used for each binder (tons/year)</u>
Adjustment facor

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

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

Source Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road 28, Ridgeville, Indiana 47380
FESOP Permit No.: F135-29992-03158

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

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

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

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

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

Form Completed by:________________________________

Title / Position:__________________________________

Date:____

Phone: ____

Indiana Department of Environmental Management
Office of Air Quality

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

Source Description and Location

Source Name:	Milestone Contractors, L.P.
Source Location:	1972 West State Road 28, Ridgeville, Indiana 47380
County:	Randolph
SIC Code:	2951(Asphalt Paving Mixtures and Blocks)
Operation Permit No.:	F135-29992-03158
Operation Permit Issuance Date:	August 24, 2011
Significant Permit Revision No.:	135-34588-03158
Permit Reviewer:	Nida Habeeb

On May 29, 2014, the Office of Air Quality (OAQ) received an application from Milestone Contractors, L.P. related to a modification to an existing stationary batch-mix, hot-mix, asphalt plant and cold-mix production operation.

Source Definition

Milestone Contractors, L.P. operates its hot mix asphalt pavement plant on the same property as its quarry. The plants have separate offices, employees, and equipment. The quarry supplies crushed aggregate to the asphalt plant. IDEM, OAQ has examined whether the asphalt plant and the quarry are part of the same major source. The term "major source" is defined at 326 IAC 2-7-1(22). In order for these plants to be considered one major source, they must meet all three of the following criteria:

(1) the plants must be under common ownership or common control;
(2) the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,
(3) the plants must be located on contiguous or adjacent properties.

The two plants have the same owner, so there is common ownership. IDEM's Nonrule Policy Document Air-005 sets out that if two plants are owned by the same person or entity, common control also exists. The first part of the major source definition is therefore met.

The SIC Code Manual of 1987 sets out how to determine the proper SIC Code for each type of business. More information about SIC Codes is available at http://www.osha.gov/pls/imis/sic_manual.html on the Internet. The quarry has the two-digit SIC Code 14 for the Major Group Mining and Quarrying of Nonmetallic Minerals, Except Fuels. The asphalt plant has the two-digit SIC Code 29 for the Major Group Petroleum Refining and Related Industries. Therefore, the two plants do not have the same two-digit SIC code.

A plant is a support facility to another plant if it dedicates 50% or more of its output to the other plant. The quarry sends about 25% of its annual output to the asphalt plant. The asphalt plant sends a very minimal amount, far less than 50%, of its asphalt pavement production to the quarry. Since the plants have different SIC Codes and neither is a support facility to the other, they do not meet the second part of the major source definition.

The two plants are located on the same property, so the third part of the definition is met. Since the plants do not meet all three parts of the major source definition, IDEM, OAQ has determined that the two plants are not part of the same major source. This determination was initially made under FESOP No. F135-29992-03158, issued on August 24, 2011.

Existing Approvals

The source was issued a FESOP Renewal No. F135-29992-03158 on August 24, 2011. The source has since received Administrative Amendment No. 135-32620-03158, issued on January 30, 2013.

County Attainment Status

The source is located in Randolph County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.1
PM2.5	Unclassifiable or attainment effective April 5, 2005, for the annual PM2.5 standard.
PM2.5	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM2.5 standard.
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
1Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard, which was revoked effective June 15, 2005.	

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Randolph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Randolph 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
Randolph County has been classified as attainment or unclassifiable in Indiana for all other criteria regulated pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

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

Status of the 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:

This PTE table is from the TSD of FESOP Renewal No. F135-29992-03158, issued on August 24, 2011.

	Potential To Emit of the Entire Source Prior to Revision (tons/year)*									
Process/ Emission Unit	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Ducted Emissions										
Dryer Fuel Combustion (worst case) (1)	83.88	66.84	66.84	96.33	37.25	2.05	31.29	45,033.84	10.48	8.65 HCl
Dryer/Mixer and Batch Tower (Process) (2)	219.06	89.84	95.08	21.68	29.57	8.87	98.56	9,154.95	1.91	0.67 Xylene
Dryer/Mixer Slag Processing	0	0	0	0	0	0	0	0	0	n/a
Hot Oil Heater Fuel Combustion (worst case)	0.04	0.07	0.07	1.55	0.44	0.02	0.26	494.97	0.007	0.006 Hexane
Hot Asphalt Storage & Conveyor System Heater Fuel Combustion (worst case)	0.03	0.05	0.05	1.11	0.31	0.01	0.18	353.55	0.005	0.004 Hexane
Worst Case Emissions*	**219.14**	**89.96**	**95.20**	**99.00**	**38.00**	**8.90**	**99.00**	**45,882.35**	**10.49**	**8.65 HCl**
Fugitive Emissions										
Asphalt Load-Out, Silo Filling, On-Site Yard (3)	0.27	0.27	0.27	0	0	4.22	0.71	0	0.07	0.02 HCHO
Material Storage Piles	0.14	0.05	0.05	0	0	0	0	0	0	0
Material Processing and Handling (3)	1.59	0.75	0.11	0	0	0	0	0	0	0
Material Crushing, Screening, and Conveying (3)	7.82	2.86	2.86	0	0	0	0	0	0	0
Unpaved and Paved Roads (worst case) (1)	20.04	5.11	0.51	0	0	0	0	0	0	0
Cold Mix Asphalt Production (4)	0	0	0	0	0	54.97	0	0	14.34	4.95 Xylenes
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0	0	0	0	0
Volatile Organic Liquid Storage Vessels***	0	0	0	0	0	negl.	0	0	negl.	negl.
Total Fugitive Emissions	**29.86**	**9.04**	**3.80**	**0**	**0**	**59.19**	**0.71**	**0**	**14.41**	**4.95 Xylenes**
Total PTE of Entire Source	**249.00**	**99.00**	**99.00**	**99.00**	**38.00**	**68.09**	**99.71**	**45,882.35**	**24.90**	**8.65 HCl**

	Potential To Emit of the Entire Source Prior to Revision (tons/year)*									
Process/ Emission Unit	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	NA	NA	NA

negl. = negligible HCl = Hydrogen Chloride HCHO = Formaldehyde

***** Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". Additionally, US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

** The 100,000 CO2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

*** Fugitive emissions from each of the volatile organic liquid storage tanks were calculated using the EPA Tanks 4.0.9d program and were determined to be negligible.

(1) Limited PTE based upon annual production and fuel usage limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).

(2) Limited PTE based upon annual production limit and lb/ton emission limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).

(3) Limited PTE based upon annual production limit to comply with 326 IAC 2-2 (PSD) & 326 IAC 2-8 (FESOP).

(4) Limited PTE based upon maximum annual VOC usage limit to comply with 326 IAC 2-8 (FESOP).

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

(b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the unlimited potential to emit HAPs 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. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of GHGs is less than one hundred thousand (100,000) tons of CO_2 equivalent (CO_2e) emissions per year.

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by Milestone Contractors, L.P. on May 29, 2014, relating to the inclusion of blast furnace slag, steel slag, and recycled asphalt shingles as additional process material options in their aggregate mix. Milestone has also requested approval to perform onsite RAP crushing. The RAP crushing will be performed by a portable unit that will be moved from site to site on an as-needed basis. Each of these changes is intended to increase the operational flexibility of this stationary source.

The following is a list of the existing affected emission units and pollution control devices:

(a) One (1) stationary, batch-mix, hot-mix asphalt plant, consisting of the following

(1) One (1) batch mixer, identified as EU#10, constructed in 2002, with a maximum throughput capacity of two hundred (200) tons of raw material per hour, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, and exhausting to Stack SV#1. This source does not use blast

furnace slag, electric arc furnace steel mill slag, or recycled asphalt shingles (RAS), asbestos-free or otherwise, in their aggregate mix;
...

(4) One (1) Recycled asphalt pavement (RAP) system, constructed in 2006, with a maximum throughput capacity of thirty (30) tons per hour, uncontrolled and exhausting to the outside atmosphere, and consisting of:

(1) One (1) feed bin, identified as EU#37;

(2) One (1) lump breaker, identified as EU#38;

(3) One (1) conveyor, identified as EU#39; and

(4) Recycled asphalt pavement (RAP) storage piles, having a maximum height of twelve (12) feet and a maximum storage capacity of one and twenty-eight hundredths (1.28) tons.

The following is a list of the new emission units and pollution control devices:

(a) One (1) 173 horsepower, diesel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved in 2014 for construction, with a maximum throughput capacity of 250 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 is considered a nonroad engine.

(b) One (1) aggregate storage area, approved in 2014 for construction, with a maximum combined storage area of 5.0 acres, including:

(A) Limestone, dolomite, sand and gravel storage piles, with a combined maximum anticipated pile size of 2.75 acres;

(B) Recycled asphalt pavement (RAP) storage pile(s), with a maximum anticipated pile size of 2.25 acres;

(C) Blast furnace and/or steel slag storage pile(s), with a maximum anticipated pile size of 0.30 acres; and

(D) Recycled asphalt shingles (RAS) piles, with a maximum anticipated pile size of 0.15 acres.

Enforcement Issues

There are no pending enforcement actions related to this revision.

Emission Calculations

See Appendix A.1 and Appendix A.2 of this TSD for detailed emission calculations.

Permit Level Determination – FESOP Revision

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. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	PTE of Proposed Revision (tons/year)									
	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e	Total HAPs	Worst Single HAP
Dryer/Mixer Slag Processing (worst case)	0	0	0	272.26	0	0	0	0	0	0
Diesel-Fired Generator < 600 HP*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total PTE of Proposed Revision	**0**	**0**	**0**	**272.26**	**0**	**0**	**0**	**0**	**0**	**0**

n/a= not applicable
* The diesel-fired engine powering the portable RAP crusher is considered a non-road engine. Pursuant to 326 IAC 1-2-73, a source does not include mobile sources, nonroad engines, or nonroad vehicles. Therefore, the potentials to emit from this unit have not been counted towards 326 IAC 2-7 (Part 70 Permits) or 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).

Pursuant to 326 IAC 2326 IAC 2-8-11.1(f)(1)(E), this FESOP is being revised through a Significant Permit Revision since the proposed revision is not an Administrative Amendment or Minor Permit Revision and the proposed revision involves a change in operation with a potential to emit greater than or equal to twenty-five (25) tons per year of the following pollutants:

(i) Sulfur dioxide (SO2).

PTE of the Entire Source After Issuance of the FESOP Revision

The table below summarizes the potential to emit of the entire source, with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)									
	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Ducted Emissions										
Dryer Fuel Combustion (worst case) (1)	**48.97** ~~83.88~~	**39.02** ~~66.84~~	**39.02** ~~66.84~~	**85.23** ~~96.33~~	**37.23**~~3~~ ~~7.25~~	2.05	**31.27** ~~31.29~~	**45,004** ~~45,034~~	**11.26** ~~10.48~~	**9.90** ~~8.65~~, Hydrogen Chloride
Dryer/Mixer and Batch Tower (Process) (2)	**217.20** ~~219.06~~	**89.19** ~~89.84~~	**94.42** ~~95.08~~	21.68	**37.45**~~2~~ ~~9.57~~	8.87	98.56	**9,162** ~~9,155~~	1.91	0.67 Xylene
Dryer/Mixer Slag Processing	0	0	0	**11.10** ~~0~~	0	0	0	0	0	n/a
Hot Oil Heater Fuel Combustion (worst case)	0.04	0.07	0.07	1.55	0.44	0.02	0.26	**613** ~~495~~	**0.01** ~~0.007~~	0.006 Hexane
Hot Asphalt Storage & Conveyor System Heater Fuel Combustion (worst case)	0.03	0.05	0.05	1.11	0.31	0.01	0.18	354	0.005	0.004 Hexane
Diesel-Fired Generator < 600 HP	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
Diesel-Fired Generator > 600 HP	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
Worst Case Emissions*	**217.27** ~~219.14~~	**89.31** ~~89.96~~	**94.54** ~~95.20~~	99.00	**38.20** ~~38.00~~	8.90	99.00	**45,970** ~~45,882~~	**11.28** ~~10.49~~	**9.90** ~~8.65~~ **HCl**
Fugitive Emissions										
Asphalt Load-Out, Silo Filling, On-Site Yard (3)	0.27	0.27	0.27	0	0	4.22	0.71	0	0.07	0.02 HCOH
Material Storage Piles	**2.00** ~~0.14~~	**0.70** ~~0.05~~	**0.70** ~~0.05~~	0	0	0	0	0	0	0
Material Processing and Handling (3)	1.59	0.75	0.11	0	0	0	0	0	0	0
Material Crushing, Screening, and Conveying (3)	7.82	2.86	2.86	0	0	0	0	0	0	0
Unpaved and Paved Roads (worst case) (1)	20.04	5.11	0.51	0	0	0	0	0	0	0
Cold Mix Asphalt Production (4)	0	0	0	0	0	**51.96** ~~54.97~~	0	0	**13.55** ~~14.34~~	**4.68** ~~4.95~~ Xylenes
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0	0	0	0	0

	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)									
Process/ Emission Unit	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Volatile Organic Liquid Storage Vessels ***	0	0	0	0	0	negl.	0	0	negl.	negl.
Total Fugitive Emissions	**31.73** ~~29.86~~	**9.69** ~~9.04~~	**4.46** ~~3.80~~	0	0	**56.18**~~5~~ ~~9.19~~	0.71	0	**13.62** ~~14.41~~	**4.68** ~~4.95~~ Xylenes
Total PTE of Entire Source	249.00	99.00	99.00	99.00	**38.20** ~~38.00~~	**56.18**~~6~~ ~~8.09~~	99.71	**45,970** ~~45,882~~	24.90	**4.68** ~~8.65~~ **HCl**
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	NA	NA	NA

negl. = negligible
**The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

***** Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a regulated air pollutant".

** The 100,000 CO2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

*** Fugitive emissions from each of the volatile organic liquid storage tanks were calculated using the EPA Tanks 4.0.9d program and were determined to be negligible.

(1) Limited PTE based upon annual production and fuel usage limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).

(2) Limited PTE based upon annual production limit and lb/ton emission limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).

(3) Limited PTE based upon annual production limit to comply with 326 IAC 2-2 (PSD) & 326 IAC 2-8 (FESOP).

(4) Limited PTE based upon maximum annual VOC usage limit to comply with 326 IAC 2-8 (FESOP).

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

Note: The table below was generated from the above table, with bold text un-bolded and strikethrough text deleted

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)									
	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e	Total HAPs	Worst Single HAP
Ducted Emissions										
Dryer Fuel Combustion (worst case)	48.97	39.02	39.02	85.23	37.23	2.05	31.27	45,004	11.26	9.90, Hydrogen Chloride
Dryer/Mixer and Batch Tower (Process) (1)	217.20	89.19	94.42	21.68	37.45	8.87	98.56	9,162	1.91	0.67, Xylene
Dryer/Mixer Slag Processing (2)	0	0	0	11.10	0	0	0	0	0	0
Hot Oil Heater Fuel Combustion (worst case)	0.04	0.07	0.07	1.55	0.44	0.02	0.26	613	0.01	0.006, Hexane
Hot Asphalt Storage & Conveyor System Heater Fuel Combustion (worst case)	0.03	0.05	0.05	1.11	0.31	0.01	0.18	354	0.005	negl.
Diesel-Fired Generator < 600 HP	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Diesel-Fired Generator > 600 HP	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Worst Case Emissions*	**217.27**	**89.31**	**94.54**	**99.00**	**38.20**	**8.90**	**99.00**	**45,970**	**11.28**	**9.90 HCl**
Fugitive Emissions										
Asphalt Load-Out, Silo Filling, On-Site Yard (3)	0.27	0.27	0.27	0	0	4.22	0.71	0	0.07	0.02 HCOH
Material Storage Piles	2.00	0.70	0.70	0	0	0	0	0	0	n/a
Material Processing and Handling (3)	1.59	0.75	0.11	0	0	0	0	0	0	n/a
Material Crushing, Screening, and Conveying (3)	7.82	2.86	2.86	0	0	0	0	0	0	n/a
Unpaved and Paved Roads (worst case) (1)	20.04	5.11	0.51	0	0	0	0	0	0	n/a
Cold Mix Asphalt Production (4)	0	0	0	0	0	51.96	0	0	13.55	4.68 Xylenes
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0.00	0	0	0.00	n/a
Volatile Organic Liquid Storage Vessels ***	0	0	0	0	0	negl	0	0	negl	negl.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)									
	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e	Total HAPs	Worst Single HAP
Total Fugitive Emissions	**31.73**	**9.69**	**4.46**	**0**	**0**	**56.18**	**0.71**	**0.00**	**13.62**	**4.68 Xylenes**
Total PTE of Entire Source	**249.00**	**99.00**	**99.00**	**99.00**	**38.20**	**65.08**	**99.71**	**45,970**	**24.90**	**9.90 HCl**
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	NA	NA	NA

negl. = negligible

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

* Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a regulated air pollutant".

** The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

*** Fugitive emissions from each of the volatile organic liquid storage tanks were calculated using the EPA Tanks 4.0.9d program and were determined to be negligible.

(1) Limited PTE based upon annual production and fuel usage limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).

(2) Limited PTE based upon annual production limit and lb/ton emission limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).

(3) Limited PTE based upon annual production limit to comply with 326 IAC 2-2 (PSD) & 326 IAC 2-8 (FESOP).

(4) Limited PTE based upon maximum annual VOC usage limit to comply with 326 IAC 2-8 (FESOP).

FESOP Status

(a) This revision to a Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants, HAPs, and CO2e from the entire source will be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).

(1) In order to comply with the requirements of 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, PM10, PM2.5, NOx, VOC, and CO emissions from the dryer/mixer shall be limited as follows:

(A) The amount of hot-mix asphalt processed shall not exceed 492,792 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(B) PM10 emissions from the dryer/mixer shall not exceed three hundred sixty-two thousandths (0.362) pounds of PM10 per ton of asphalt produced.

This is a change from 0.365 pounds of PM10 per ton of asphalt produced. This is a Title I change;

(C) PM2.5 emissions from the dryer/mixer shall not exceed three hundred eighty-three thousandths (0.383) pounds of PM2.5 per ton of asphalt produced.

This is a change from 0.386 pounds of PM2.5 per ton of asphalt produced. This is a Title I change;

(D) NOx emissions from the dryer/mixer shall not exceed one hundred and fifty-two thousandths (0.152) pounds of NOx per ton of asphalt produced.

This is a change from 0.120 pounds of NOx per ton of asphalt produced. This is a Title I change;

(E) VOC emissions from the dryer/mixer shall not exceed thirty-six thousandths (0.036) pounds of VOC per ton of asphalt produced.

(F) CO emissions from the dryer/mixer shall not exceed forty hundredths (0.40) pounds of CO per ton of asphalt produced.

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

Compliance with the throughput limit and lb/ton VOC emission limit 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.

(2) In order to comply with the requirements of 326 IAC 2-8-4 (FESOP) and in order to render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable, SO2 and HAP emissions from the dryer/mixer shall be limited as:

(A) Fuel and Slag Specifications

(i) The sulfur content of the No. 2 distillate fuel oil shall not exceed five tenths percent (0.5%) by weight.

(ii) The sulfur content of the waste oil shall not exceed seventy-five hundredths percent (0.75%) by weight

(iii) The waste oil combusted shall not contain more than 1.02% ash, 0.200% chlorine, and 0.01% lead;

(iv) HCl emissions from the dryer/mixer shall not exceed sixty-six ten-thousandths (0.0066) pounds of HCl per gallon of waste oil burned;

(v) The sulfur content of the blast furnace slag shall not exceed 1.50% by weight.

This is a new requirement for this source. This is a Title I change.

(vi) The SO2 emissions from the dryer/mixer shall not exceed 0.740 pounds per ton of blast furnace slag processed in the aggregate mix.

This is a new requirement for this source. This is a Title I change.

(vii) The sulfur content of the steel slag shall not exceed 0.66% by weight.

This is a new requirement for this source. This is a Title I change.

(viii) The SO2 emissions from the dryer/mixer shall not exceed 0.0014 pounds per ton of steel slag processed in the aggregate mix.

This is a new requirement for this source. This is a Title I change.

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

(i) Natural Gas usage shall not exceed 745 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

(ii) No. 2 fuel oil usage shall not exceed 2,400,971 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

This is a change from 2,713,647 gallons per twelve (12) consecutive month period. This is a Title I change;

(iii) Waste oil usage shall not exceed 1,500,200 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

This is a change from 2,621,346 gallons per twelve (12) consecutive month period. This is a Title I change;

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

(iv) The blast furnace slag usage shall not exceed 30,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

This is a new requirement for this source. This is a Title I change.

Note: A steel slag usage limit is not required for the source to comply with their FESOP SO2 Limit, since unlimited use results in a PTE SO2 of only 0.50 tons/yr (see TSD Appendix A.1, page 6 of 21). To form a conservative estimate, limited SO2 emissions are based on the "worst case" assumption that steel slag usage corresponds to 100% of the aggregate used to produce hot-mix asphalt (see TSD Appendix A.2).

(C) Multiple Fuel and Slag Usage Limitation:
When combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, in conjunction with the use of slag in the aggregate mix, emissions from the dryer/mixer shall be limited as follows:

(i) SO_2 emissions from the dryer/mixer shall not exceed 96.33 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

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

the following formula:

Sulfur Dioxide Emission Calculation

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

Where:

S = tons of sulfur dioxide emissions for a 12-month consecutive period
G = million cubic feet of natural gas used in the last 12 months
O = gallons of No. 2 distillate fuel oil used in last 12 months with less than or equal to 0.5% sulfur content
W = gallons of waste oil used in last 12 months with less than or equal to 0.50% sulfur
B = tons of blast furnace slag used in the last 12 months
T = tons of steel slag used in the last 12 months
E_G = 0.60 lbs/million cubic feet of natural gas
E_O = 0.071 lbs/gallon of No. 2 distillate fuel oil
E_W = 0.1103 lbs/gallon of waste oil
E_B = 0.74 lbs/ton of blast furnace slag used
E_T = 0.0014 lbs/ton of steel slag used

(3) Asphalt Shingle Usage Limitations:
In order to comply with the requirements of 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAPs)) not applicable, the Permittee shall not grind recycled asphalt shingles on-site and shall only use the following as an additive in its aggregate mix:

(A) Certified asbestos-free factory second asphalt shingles;

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

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

This is a new requirement for this source. This is a Title I change.

Compliance with these limits, combined with the potential to emit SO2 and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of SO2 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 shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable.

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

(A) VOC emissions from the sum of the binders shall not exceed 51.96 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

This is a change from 54.97 tons per twelve (12) consecutive month period. This is a Title I change.

(B) Liquid binders used in the production of cold mix asphalt shall be defined as follows.

(i) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95.0% by weight of VOC solvent evaporating.

(ii) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70.0% by weight of VOC solvent evaporating.

(iii) Cut back asphalt slow cure, containing a maximum of 20.0% of the liquid binder by weight of VOC solvent and 25.0% by weight of VOC solvent evaporating.

(iv) Emulsified asphalt with solvent, containing a maximum of 15.0% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be seven percent (7%) or less of the total emulsion by volume.

(v) Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating.

(C) When using only one type of liquid binder per twelve (12) consecutive month period, the usage of liquid binder shall be limited as follows:

(i) The amount of VOC solvent used in rapid cure cutback asphalt shall not exceed fifty-four and seventy hundredths (54.70) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

This is a change from 57.86 tons per twelve (12) consecutive month period. This is a Title I change.

(ii) The amount of VOC solvent used in medium cure cutback asphalt shall not exceed seventy-four and twenty-three hundredths (74.23) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

This is a change from 78.53 tons per twelve (12) consecutive month period. This is a Title I change.

(iii) The amount of VOC solvent used in slow cure cutback asphalt shall not exceed two hundred seven and eighty-four hundredths (207.84) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

This is a change from 219.88 tons per twelve (12) consecutive month period. This is a Title I change.

(iv) The amount of VOC solvent used in emulsified asphalt shall not exceed

one hundred eleven and ninety-nine hundredths (111.99) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

This is a change from 118.47 tons per twelve (12) consecutive month period. This is a Title I change.

(v) The amount of VOC solvent used in all other asphalt shall not exceed two thousand seventy-eight and forty-four hundredths (2,078.44) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

This is a change from 2,198.78 tons per twelve (12) consecutive month period. This is a Title I change.

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

(i) The VOC solvent allotments in (3)(i) through (3)(v) above shall be adjusted when more than one type of binder is used per twelve (12) consecutive month period with compliance determined at the end of each month. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment factor listed in the table that follows.

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

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

Compliance with these limits, combined with the VOC and HAPs from all other emission units at this source emissions 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 shall render 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD)) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable not applicable.

PSD Minor Source

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

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

(A) The amount of hot-mix asphalt processed shall not exceed 492,792 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(B) PM emissions from the dryer/mixer shall not exceed 0.882 pounds per ton of asphalt processed.

This is a change from 0.889 pounds per ton of asphalt processed tons per twelve (12) consecutive month period. This is a Title I change.

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

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

(b) This revision will not change the minor status of the source, because the limited potential to emit of any single HAP will still be less than ten (10) tons per year and the PTE of a combination of HAPs will still be less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

(c) The source-wide GHG emissions are less than one hundred thousand (>100,000) tons of CO_2 equivalent (CO_2e) emissions per year. GHG emissions do not affect the source PSD status.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

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

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

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

(1) Except as discussed in paragraph (2) of this definition, a nonroad engine is an internal combustion engine that meets any of the following criteria:

(i) It is (or will be) used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers).

(ii) It is (or will be) used in or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers).

(iii) By itself or in or on a piece of equipment, it is portable or transportable, meaning designed to be and capable of being carried or moved from one location to

another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

(2) An internal combustion engine is not a *nonroad engine* if it meets any of the following criteria:

(i) The engine is used to propel a motor vehicle, an aircraft, or equipment used solely for competition.

(ii) The engine is regulated under 40 CFR part 60, (or otherwise regulated by a federal New Source Performance Standard promulgated under section 111 of the Clean Air Act (42 U.S.C. 7411)).

(iii) The engine otherwise included in paragraph (1)(iii) of this definition remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or an engine) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year. See §1068.31 for provisions that apply if the engine is removed from the location.

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

(1) The diesel fuel-fired portable RAP crusher and screener shall remain at a location for a period not to exceed twelve (12) consecutive months.

(2) Any diesel fuel-fired portable RAP crusher and screener that replaces a diesel fuel-fired portable RAP crusher and screener at a location and that is intended to perform the same or similar function as the diesel fuel-fired portable RAP crusher and screener replaced will be included in calculating the consecutive time period.

(3) For the purposes of this condition and pursuant to 40 CFR 1068.30 Nonroad Engine (2)(iii), a location is any single site at a building, structure, facility, or installation.

(b) 40 CFR 60, Subpart JJJJ - NSPS for Stationary Spark Ignition Internal Combustion Engines
The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ (4J) (326 IAC 12), are not included in the permit, because the diesel fuel-fired portable crusher and screener is compression ignition and meets the definition of a nonroad engine, as defined in 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is therefore not considered a stationary internal combustion engine as defined in 40 CFR 60.4248.

(c) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this proposed revision.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(a) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ (326 IAC 20), have been removed for this proposed revision, since there are no boilers at this source.

Additionally, these requirements are not included in the permit for the dryer/mixer burner or diesel fuel-fired portable crusher and screener, because although this source is an area source of hazardous air pollutants (HAP), as defined in §63.2, the dryer/mixer burner, diesel fuel-fired portable crusher and screener, and the hot asphalt storage and slat conveyor transfer heater are each a direct-fired process unit and not a boiler, as defined in 40 CFR 63.11237 and the 0.70 MMBtu/hr hot oil heater, identified as emission unit EU#13A, uses heat transfer oil as the indirect heating media not steam/hot water, as defined in 40 CFR 63.11237.

NESHAP JJJJJJ was incorrectly identified in the previous permit as applicable to this source. There are no boilers currently in operation at this source. This is a Title I change.

(b) 40 CFR 63.6580, Subpart ZZZZ - NESHAP for Stationary Reciprocating Internal Combustion Engines

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

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

See paragraph (a)(1) above for the definition of nonroad engine. IDEM, OAQ has determined that based on information submitted by Milestone, the diesel fuel-fired portable crusher and screener (EU002) may be considered a nonroad engine for the purposes of 40 CFR 63, Subpart ZZZZ applicability, provided it meets the requirements of paragraph (2)(iii) of the definition of nonroad engine in 40 CFR 1068.30. Therefore, the requirements of 40 CFR 60, Subpart ZZZZ are not applicable to the diesel fuel-fired portable crusher and screener, provided it meets the following requirements:

(1) The diesel fuel-fired portable RAP crusher and screener shall remain at a location for a period not to exceed twelve (12) consecutive months.

(2) Any diesel fuel-fired portable RAP crusher and screener that replaces a diesel fuel-fired portable RAP crusher and screener at a location and that is intended to perform the same or similar function as the diesel fuel-fired portable RAP crusher and screener replaced will be included in calculating the consecutive time period.

(3) For the purposes of this condition and pursuant to 40 CFR 1068.30 Nonroad Engine (2)(iii), a location is any single site at a building, structure, facility, or installation.

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

The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing, 40 CFR 63, Subpart AAAAAAA (7A) (326 IAC 20), are not included in the permit, because although the stationary batch hot-mix asphalt plant is an area source of hazardous air pollutant (HAP) emissions, as defined in §63.2, it does not meet the definition of an asphalt processing operation or an asphalt roofing manufacturing operation, as defined in §63.11566, since it does not engage in the preparation of asphalt flux or asphalt roofing materials.

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

Compliance Assurance Monitoring (CAM)

(a) 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 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 Determination

The following state rules are applicable to the proposed revision:

(a) 326 IAC 2-8-4 (FESOP)
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

(b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

(c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the new/ modified units is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.

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

(e) 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.

(f) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.

(g) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

State Rule Applicability – Individual Facilities

The following state rules for individual facilities are applicable to the proposed revision:

Batch-mix, Hot-Mix Asphalt Plant

(a) 326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)
The unlimited potential VOC emissions from the one (1) existing batch dryer/mixer are still greater than twenty-five (25) tons per year. However, the source will continue to limit potential VOC emissions from the one (1) existing batch dryer/mixer to less than twenty-five (25) tons per year, therefore, rendering the requirements of 326 IAC 8-1-6 Best Available Control Technology (BACT) still not applicable.

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

(1) The hot-mix asphalt production rate shall still not exceed 492,148 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) VOC emissions from the one (1) existing dryer/mixer shall still not exceed 0.036 pounds of VOC per ton of asphalt produced.

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

(b) 326 IAC 8-6-1 (Organic Solvent Emission Limitations)
The one (1) existing batch dryer/mixer is still subject to the requirements of 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities). Therefore, the requirements of 326 IAC 8-6-1 (Organic Solvent Emission Limitations) still do not apply to the hot-mix asphalt production and are not included in the permit.

(c) There are no other 326 IAC 8 Rules that are applicable to the batch-mix, hot-mix asphalt plant.

(d) 326 IAC 9-1 (Carbon Monoxide Emission Limits)
Pursuant to 326 IAC 9-1-1(a), one (1) existing batch-mix, one (1) existing hot-mix asphalt plant is still not subject to the requirements of 326 IAC 9-1, since it still is / was not one of the source types listed in 326 IAC 9-1-2.

RAP Crusher and Screener - (Reciprocating Internal Combustion Engines (RICE))

(a) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
The 173.0 hp diesel fuel-fired, the one (1) new RAP crusher and screener, is not a source of indirect heating, as defined in 326 IAC 1-2-19 “Combustion for indirect heating”. Therefore, the requirements of 326 IAC 6-2 do not apply, and are not included in the permit.

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

See 326 IAC 6-3-2 applicability below for Crushing/ Screening.

(c) 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)
The unlimited potential to emit SO2 from the 173.0 hp diesel fuel-fired, one (1) new RAP crusher and screener is less than twenty-five (25) tons per year and ten (10) pounds/hour. Therefore, the requirements of 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations) do not apply and are not included in the permit.

(d) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The unlimited VOC potential emissions from the 173.0 hp diesel fuel-fired, one (1) new RAP crusher and screener, is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 (General Reduction Requirements for New Facilities) do not apply and are not included in the permit.

(e) 326 IAC 9-1 (Carbon Monoxide Emission Limits)
The 173.0 hp diesel fuel-fired, one (1) new RAP crusher and screener, is not one of the source types listed in 326 IAC 9-1-2. Therefore, the requirements of 326 IAC 9-1 (Carbon Monoxide Emission Limits) do not apply and are not included in the permit.

(f) 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Category)
The 173.0 hp diesel fuel-fired, one (1) new RAP crusher and screener, does not meet the definition of an affected facility, as defined in 326 IAC 10-3-1(a), because it has a maximum a heat input of less than two hundred fifty million (250,000,000) British thermal units per hour (MMBtu). Therefore, the requirements of 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Category) do not apply and are not included in the permit.

Crushing/Screening Operation

(a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the RAP crushing and screening operation shall continue to not exceed 60.96 pounds per hour when operating at a process weight rate of 250 tons per hour. The pound per hour limitation was calculated with the following equation:

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

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

Also, pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emission may exceed the emission limit listed above, provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

Material Handling - Slag and Recycled Shingles

(a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(c)(5), the material handling and conveying operations at this existing source are each still not subject to the requirements of 326 IAC 6-3 since each is still subject to the more stringent particulate limit established in 326 IAC 12. The material handling and conveying operations at this existing source are each still subject to 40 CFR 60, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities), which incorporated by reference through 326 IAC 12.

Compliance Determination, Monitoring and Testing Requirements

(a) The compliance determination requirements applicable to this proposed revision are as follows:

(1) The slag characteristics (i.e., sulfur content) and usage rates will be used to verify compliance with the SO2 emission limitations.

(2) The shingle characteristics (i.e., supplier certified asbestos-free post consumer waste and/or factory seconds shingles) will be used to verify compliance with the FESOP HAP limitation.

(b) The compliance testing requirements applicable to this proposed revision are as follows:

Emission Unit	Control Device	Pollutant	Timeframe for Testing	Frequency of Testing
Dryer/mixer	N/A	SO2	Within 180 days after initial use of Blast Furnace slag(1)	One time test
RAP Crusher	N/A	PM/PM10/PM2.5 *(opacity/fugitives)*	Within 180 days after initial use(2)	Once every five (5) years

Notes:

(1) Testing shall only be performed if the company has not previously performed SO2 testing while adding blast furnace slag to the aggregate mix at one of their other Indiana facilities.

(2) Required for compliance with 40 CFR 60, Subpart OOO, and 326 IAC 2-8 (FESOP), for fugitive emissions from affected facilities without water sprays. Testing shall only be performed if the company has not previously performed testing at one of their other Indiana facilities. Additionally, 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 the 5-year repeat testing requirement.

(c) The compliance monitoring requirements is applicable to this proposed revision are as follows:

(1) The material processing and handling, screening, conveying, and material transfer points continue to have the applicable compliance monitoring conditions as specified below:

Emission Unit & Control Device	Parameter	Frequency	Range	Excursions and Exceedances
Conveyors, screens, and material transfer points	Visible Emissions	Once per day	normal/ abnormal	Response Steps

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

(2) The one (1) new RAP crushing and associated material conveying, screening, and transfer points continue to have the applicable compliance monitoring conditions as follows:

Parameter	Frequency	Range	Excursions and Exceedances
Visible Emissions	Once per day	normal/abnormal	Response Steps

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

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. Entire Permit - The emission unit descriptions for the one (1) batch mixer, identified as EU#10 have been modified to include the addition of blast furnace slag, steel slag and recycled asphalt shingles.

2. Entire Permit - The emission unit descriptions for the one (1) recycled asphalt pavement (RAP) system have been modified to include the addition of diesel fuel-fired portable RAP crusher and screener and associated units.

3. Entire Permit - Insignificant Activities has been revised to include a description of the new slag and recycled shingles storage piles.

4. Section D.1.1– PSD Minor limits have been revised to reflect the changes to the pound per ton PM limit. Additionally, the condition to control PM emissions in accordance the the fugitive dust control plan was added to this section.

5. Section D.1.2– FESOP limits has been revised to reflect the changes to pound per ton PM10 and PM2.5 limitations.

6. Section D.1.3 – FESOP limits have been revised to incorporate the new blast furnace and steel slag sulfur content (%) limitations, the new pound per ton blast furnace and steel slag emission limitations, the new blast furnace slag usage limitation (ton/yr), and the new asphalt shingle usage limitation. Additionally, the limits reflect the changes to the hot-mix asphalt production rate limit, No.2 distillate fuel oil, and waste oil usage limits.

7. Compliance Determination, Compliance Monitoring, and Recordkeeping Requirements have been added for the addition of blast furnace slag, steel slag, and recycled asphalt shingles.

8. Reporting Requirements has been revised to include reporting requirements for the blast furnace slag usage.

9. Section D.2 – Limits have been revised to reflect the changes to the VOC emissions from the sum of the binders (ton/yr) and the amount of VOC solvent from different liquid binders' limitations.

10. The requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) for the new diesel fuel-fired portable RAP crusher and screener, have been added as Condition D.3.1 - Particulate Emission Limits [326 IAC 6-3] to the permit.

11. Section E.3 – Requirements of 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) has been removed, since the source confirmed via email that this source has no boilers.

12. The FESOP Reporting Forms located at the back of the permit have been updated to reflect the revised limits of this TSD, the addition of the blast furnace and steel slag, and the change to determining compliance using an equation.

13. Additional typographical errors have been corrected.

IDEM, OAQ made additional revisions to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

1. C.11 - IDEM is changing the Section C Compliance Monitoring Condition to clearly describe when new monitoring for new and existing units must begin.

2. C.12 - IDEM clarified this condition to indicate that the analog instrument must be capable of measuring the parameters outside the normal range.

3. C.17 - IDEM added "where applicable" to the lists in Section C - General Record Keeping Requirements to more closely match the underlying rule.

...

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) stationary, batch-mix, hot-mix asphalt plant, consisting of the following:

(1) One (1) batch mixer, identified as EU#10, constructed in 2002, **approved for modification 2014,** with a maximum throughput capacity of two hundred (200) tons of raw material per hour, **processing blast furnace slag, steel slag, and recycled asphalt shingles in the aggregate mix**, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, and exhausting to Stack SV#1. ~~This source does not use blast furnace slag, electric arc furnace steel mill slag, or recycled asphalt shingles (RAS), asbestos-free or otherwise, in their aggregate mix;~~

...

~~Note: This source obtains its aggregate from the quarry where it is located, therefore no storage piles, aside from the RAP, are included in the source description, or emission calculations, since they are already accounted for in the quarry's operating permit.~~

~~Under 40 CFR 60.90, Subpart I - New Source Performance Standards for Hot Mix Asphalt Facilities, this batch-mix, hot-mix asphalt operation is considered an affected facility.~~

(4) One (1) Recycled asphalt pavement (RAP) system, constructed in 2006, with a maximum throughput capacity of thirty (30) tons per hour, uncontrolled and exhausting to the outside atmosphere, and consisting of:

(A) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and

screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2014, with a maximum throughput capacity of 250 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 is considered a nonroad engine.

(~~1~~**B**) One (1) **RAP** feed bin, identified as EU#37**, and two (2) feeder conveyors**;

(~~2~~**C**) One (1) lump breaker, identified as EU#38**, with one (1) collector conveyor**;

(~~3~~**D**) One (1) **RAP scale** conveyor, identified as EU#39; ~~and~~

~~(4) Recycled asphalt pavement (RAP) storage piles, having a maximum height of twelve (12) feet and a maximum storage capacity of one and twenty-eight hundredths (1.28) tons.~~

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

(5) One (1) aggregate storage area, approved for modification 2014, with a maximum combined storage area of 5.0 acres, including:

(A) Limestone, dolomite, sand and gravel storage piles, with a combined maximum anticipated pile size of 2.75 acres;

(B) Recycled asphalt pavement (RAP) storage pile(s), with a maximum anticipated pile size of 2.25 acres;

(C) Blast furnace and/or steel slag storage pile(s), with a maximum anticipated pile size of 0.30 acres; and

(D) Recycled asphalt shingles (RAS) piles, with a maximum anticipated pile size of 0.15 acres.

Under 40 CFR 60.90, Subpart I, this batch-mix, hot-mix asphalt operation is considered an affected facility.

...

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

This stationary source also includes the following insignificant activities:

(a) One (1) liquid asphalt cement hot oil heating system, including the following:

(1) One (1) hot oil heater, identified as EU#13A, constructed in 1995, with a maximum heat input capacity of seven hundred thousandths (0.700) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV2; [326 IAC 6-2]

~~Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this is considered an affected facility.~~

...

(b) One (1) hot asphalt storage and slat conveyor transfer heater, identified as EU#33, with a maximum heat input capacity of five hundred thousandths (0.500) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV4; [326 IAC 6-2]

~~Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this is considered an affected facility.~~

...

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: ~~Hot-Mix Asphalt Plant and Recycled Asphalt Pavement (RAP) System~~

(a) One (1) stationary, batch-mix, hot-mix asphalt plant, consisting of the following:

(1) One (1) batch mixer, identified as EU#10, constructed in 2002, **approved for modification 2014,** with a maximum throughput capacity of two hundred (200) tons of raw material per hour, **processing blast furnace slag, steel slag, and recycled asphalt shingles in the aggregate mix**, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, and exhausting to Stack SV#1. ~~This source does not use blast furnace slag, electric arc furnace steel mill slag, or recycled asphalt shingles (RAS), asbestos-free or otherwise, in their aggregate mix;~~

...

~~Note: This source obtains its aggregate from the quarry where it is located, therefore no storage piles, aside from the RAP, are included in the source description, or emission calculations, since they are already accounted for in the quarry's operating permit.~~

~~Under 40 CFR 60.90, Subpart I - New Source Performance Standards for Hot Mix Asphalt Facilities, this batch-mix, hot-mix asphalt operation is considered an affected facility.~~

(4) One (1) Recycled asphalt pavement (RAP) system, constructed in 2006, with a maximum throughput capacity of thirty (30) tons per hour, uncontrolled and exhausting to the outside atmosphere, and consisting of:

(A) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2014, with a maximum throughput capacity of 250 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 is considered a nonroad engine.

(~~1~~**B**) One (1) **RAP** feed bin, identified as EU#37**, and two (2) feeder**

conveyors;

(~~2~~**C**) One (1) lump breaker, identified as EU#38**, with one (1) collector conveyor**;

(~~3~~**D**) One (1) **RAP scale** conveyor, identified as EU#39; ~~and~~

~~(4) Recycled asphalt pavement (RAP) storage piles, having a maximum height of twelve (12) feet and a maximum storage capacity of one and twenty-eight hundredths (1.28) tons.~~

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

(5) One (1) aggregate storage area, approved for modification 2014, with a maximum combined storage area of 5.0 acres, including:

(A) Limestone, dolomite, sand and gravel storage piles, with a combined maximum anticipated pile size of 2.75 acres;

(B) Recycled asphalt pavement (RAP) storage pile(s), with a maximum anticipated pile size of 2.25 acres;

(C) Blast furnace and/or steel slag storage pile(s), with a maximum anticipated pile size of 0.30 acres; and

(D) Recycled asphalt shingles (RAS) piles, with a maximum anticipated pile size of 0.15 acres.

Under 40 CFR 60.90, Subpart I, this batch-mix, hot-mix asphalt operation is considered an affected facility.

...

Insignificant Activities: ~~Boilers~~

(a) One (1) liquid asphalt cement hot oil heating system, including the following:

(1) One (1) hot oil heater, identified as EU#13A, constructed in 1995, with a maximum heat input capacity of seven hundred thousandths (0.700) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV2; [326 IAC 6-2]

~~Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this is considered an affected facility.~~

(b) One (1) hot asphalt storage and slat conveyor transfer heater, identified as EU#33, with a maximum heat input capacity of five hundred thousandths (0.500) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV4; [326 IAC 6-2]

~~Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this 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.)

D.1.1 PSD Minor Limits: PM [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

(a) The **amount of** hot-mix asphalt **processed** ~~production rate~~ shall not exceed 492,792 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) PM emissions from the dryer/mixer shall not exceed eight hundred eighty-~~nine~~ **two** thousandths (0.~~889~~**882**) pounds of PM per ton of asphalt produced

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

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

Pursuant to 326 IAC 2-8-4**(FESOP) and in order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the dryer/mixer shall be limited as follows**~~, the Permittee shall comply with the following~~:

(a) The **amount of** hot-mix asphalt **processed** ~~production rate~~ shall not exceed 492,792 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) PM10 emissions from the dryer/mixer shall not exceed three hundred sixty-~~five~~ **two** thousandths (0.~~365~~**362**) pounds of PM10 per ton of asphalt produced.

(c) PM2.5 emissions from the dryer/mixer shall not exceed three hundred eighty-~~six~~ **three** thousandths (0.~~386~~**383**) pounds of PM2.5 per ton of asphalt produced.

(d) NOx emissions from the dryer/mixer shall not exceed one hundred and ~~twenty~~ **fifty-two** thousandths (0.1~~20~~**53**) pounds of NOx per ton of asphalt produced.

~~Additionally,~~ **C**ompliance with the limits in Conditions D.1.2**(a) and** (e) 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** ~~(VOC Rules: General Reduction Requirements for New Facilities~~) not applicable.

D.1.3 FESOP Limits: SO2 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 **(PSD), 326 IAC 2-7 (Part 70 Permits)** and 326 IAC 2-4.1 **(Major Sources of Hazardous Air Pollutants (HAP))** not applicable, **SO2 and HAP emissions from the dryer/mixer shall be limited as follows**: ~~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 five tenths percent (0.5%) by weight;

(2) The sulfur content of the waste oil shall not exceed ~~fifty~~ **seventy-five** hundredths percent (0.~~50~~**75**%) by weight;

(3) ~~The chlorine content of the waste oil shall not exceed ten hundredths percent (0.10%) by weight;~~ **The waste oil combusted shall not contain more than 1.02% ash, 0.200% chlorine, and 0.01% lead;**

(4) HCl emissions from the dryer/mixer shall not exceed sixty-six ten-thousandths (0.0066) pounds of HCl per gallon 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 Limitation
When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer burner the usage of fuel shall be limited as follows:

(1) Natural gas usage shall not exceed 745 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) No. 2 distillate fuel oil usage shall not exceed ~~2,713,647~~ **2,400,971** gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) Waste oil usage shall not exceed ~~2,621,346~~ **1,500,200** gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(4) The blast furnace slag usage shall not exceed 30,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

...

(d) Asphalt Shingle Usage Limitations:

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAPs)) not applicable, 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.

~~(d) Slag Usage Limitation~~
~~Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall not use slag as an aggregate additive in the hot-mix asphalt operations.~~

~~(e) Asphalt Shingle Usage Limitation~~
~~Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAPs)) not applicable, the Permittee shall not use asphalt shingles as an aggregate additive in its hot-mix asphalt operations.~~

Compliance with these limits, combined with the potential to emit SO2 and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of SO2 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 shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable.

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

Pursuant to 326 IAC 6-2-~~3~~**4**, the particulate emissions from the hot oil heater, identified as EU#13A, and the hot asphalt storage and slat conveyor transfer heater, identified as EU#33, each, shall not exceed six tenths (0.6) pounds of particulate matter per MMBtu heat input.

...

D.1.6 Sulfur Dioxide (SO2) Limits [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~~a) 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~~b) 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.

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

(~~b~~c) 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 this facility and ~~any associated~~ **their 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

D.1.8 Particulate Matter (PM, PM10, and PM2.5) Control

(a) In order to comply with Conditions D.1.1**(b)**, and D.1.2**(b)(c)**, baghouse (EU#19), and cyclone (EU#16), 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 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.

~~(b) In order to comply with Condition D.1.6, the Permittee shall implement the fugitive particulate matter emissions control plan, included as Attachment A.~~

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

(a) In order to demonstrate compliance with Condition D.1.1(b)**,**~~and~~ 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. ~~This~~ **These** test**s** shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. **PM10 and PM2.5 includes filterable and condensable PM.**

(b) In order to demonstrate compliance with Condition D.1.3(a)(6), when using blast furnace slag, the Permittee shall perform SO2 testing for the aggregate dryer not later than one hundred eighty (180) days of initial use of blast furnace slag in the aggregate mix, utilizing methods as approved by the Commissioner. Testing shall only be performed if the company has not previously performed SO2 testing while using blast furnace slag in the aggregate mix at one of their other Indiana facilities.

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

D.1.10 Multiple Fuel **and Slag** Usage / Sulfur Dioxide (SO2) Emissions

(a) **In order to comply with the Condition D.1.3(c)(1), when combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, in conjunction with the use of slag in the aggregate mix, the Permittee shall limit fuel and slag usage according to the following formulas:** ~~Compliance with the multiple fuel usage, and SO2 emission limitations established in Conditions D.1.3(a),(b) and (c) shall be determined using the following equations:~~

Sulfur Dioxide Emission Calculation

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

Where:

S = tons of sulfur dioxide emissions for a 12-month consecutive period
G = million cubic feet of natural gas used in the last 12 months
O = gallons of No. 2 distillate fuel oil used in last 12 months with less than or equal to 0.5% sulfur content
W = gallons of waste oil used in last 12 months with less than or equal to 0.~~50~~**75**% sulfur

B	**= tons of blast furnace slag used in the last 12 months**
T	**= tons of steel slag used in the last 12 months**
E_G	= 0.60 lbs/million cubic feet of natural gas
E_O	= 0.071 lbs/gallon of No. 2 distillate fuel oil
E_W	= 0.0735 lbs/gallon of waste oil
E_B	**= 0.74 lbs/ton of blast furnace slag used**
E_T	**= 0.0014 lbs/ton of steel slag used**

D.1.11 Sulfur Dioxide 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.1.5** ~~D.1.7 (a)(1) and (2)~~ shall be determined utilizing one of the following options.
....

Blast Furnace Slag

(b) Compliance with the blast furnace slag limitation established in Condition D.1.3(a)(6) shall be determined utilizing one of the following options. Pursuant to 326 IAC 2-8-4 (FESOP), compliance shall be demonstrated on a thirty (30) day calendar-month average.

(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.

(3) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 100.0 MMBtu/hr dryer burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, or other procedures approved by IDEM, OAQ.

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

Steel Slag

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

(1) Maintaining all records of vendor analyses or certifications of steel slag delivered; or

(2) Analyzing a sample of each 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.

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

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

D.1.12 Chlorine Content

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

D.1.13 Shingle Asbestos Content

Pursuant to 326 IAC 2-8-4, compliance with Condition D.1.3(d) shall be determined utilizing one of the following options: FESOP Limits: SO2, NOx, and HAPs shall be determined utilizing one of the following options:

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

(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 factory second shingles and/or post consumer waste shingles delivery to determine the asbestos content of the 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.

...

D.1.15 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the aggregate dryer/mixer, at least once per day when the aggregate dryer/mixer is in operation. When, for any one reading, the pressure drop across the baghouse **is outside of the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between one (1.0) and eight (8.0) inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.** ~~is lower than the minimum pressure range, the Permittee shall take a reasonable response. The normal range for this unit is a reading between 1 to 8 inches of water unless a different value is determined during the latest stack test.~~ Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. **The Permittee shall maintain records of the manufacturer specifications, if used.**

...

D.1.18 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.1.5, D.1.10, D.1.11, D.1.12 and D.1.13** ~~and D.1.7~~, the Permittee shall maintain records in accordance with (1) through (~~5~~**12**) below. Records maintained for (1) through (~~5~~**12**) below shall be taken monthly and shall be complete and sufficient to establish compliance with the limits established in Conditions**, D.1.5, D.1.10, D.1.11, D.1.12 and D.1.13** ~~D.1.3 and D.1.7~~.

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

...

(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:

(A) Blast furnace and steel slag supplier certifications;

(B) The name of the blast furnace and steel slag supplier; and

(C) 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.

(11) 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:

(12) 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.

(d) To document the compliance status with Condition D.1.~~13~~**14**, the Permittee shall maintain records of visible emission notations of the dryer/mixer stack (SV#1) exhaust once per day. 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).

(e) To document the compliance status with Condition D.1.~~14~~**15**, the Permittee shall maintain records once per day of the pressure drop during normal operation. The Permittee shall include in its daily record when the pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).

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

D.1.~~18~~**19** Reporting Requirements

(a) A quarterly summary 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 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 D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: ~~Cold-mix Asphalt Production & Storage~~

(b) One (1) cold-mix cutback asphalt production operation, identified as EU#11, constructed in 2002, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, exhausting to Stack SV#1, and including:

(1) cold-mix (stockpile mix) asphalt 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.2.2 Volatile Organic Compounds (VOC) [326 IAC 2-8-4] [326 IAC 2-2]

~~(a)~~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:**~~sum of the binders shall not exceed fifty-four and ninety-seven hundredths (54.97) tons per twelve (12) consecutive month period with compliance determined at the end of each month.~~

(a) VOC emissions from the sum of the binders shall not exceed 51.96 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

...

(c) When using only one type of liquid binder per twelve (12) consecutive month period, the usage of liquid binder shall be limited as follows:

(1) The amount of VOC solvent used in rapid cure cutback asphalt shall not exceed fifty-~~seven~~ **four** and ~~eighty-six~~ **seventy** hundredths (~~57.86~~**54.70**) 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 seventy-~~eight~~ **four** and ~~fifty-three~~ **twenty-three** hundredths (~~78.53~~**74.23**) 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 two hundred ~~nineteen~~ **seven** and eighty~~--eight~~ **four** hundredths (~~219.88~~**207.84**) 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 one hundred ~~eighteen~~ **eleven** and ~~forty-seven~~ **ninety-nine** hundredths (~~118.47~~**111.99**) 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 two thousand ~~one hundred ninety-eight~~ **seventy-eight** ~~and seventy-eight~~ **forty-four** hundredths (~~2,198.78~~ **2,372.11)** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

...

Compliance with these limits, combined with the VOC **and HAPs from all other emission units at this source** emissions 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 **shall** render 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD)) **and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable** not applicable.

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).

...

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 D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(4) One (1) Recycled asphalt pavement (RAP) system, constructed in 2006, with a maximum throughput capacity of thirty (30) tons per hour, uncontrolled and exhausting to the outside atmosphere, and consisting of:

(A) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2014, with a maximum throughput capacity of 250 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 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.)

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

D.3.1 Particulate Emission Limits [326 IAC 6-3]

(a) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the diesel fuel-fired portable RAP crusher and screener shall not exceed 60.96 pounds per hour when operating at a process weight rate of 250 tons (or 500,000 pounds) per hour.

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

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

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

(b) Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emission may exceed the emission limit listed above, provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

D.3.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for this facility. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

...

SECTION E.1 ~~NSPS~~ **FACILITY OPERATION** REQUIREMENTS

Emissions Unit Description: ~~Hot Mix Asphalt Plant~~

(a) One (1) stationary, batch-mix, hot-mix asphalt plant, consisting of the following:

(1) One (1) batch mixer, identified as EU#10, constructed in 2002, **approved for modification 2014,** with a maximum throughput capacity of two hundred (200) tons of raw material per hour, **processing blast furnace slag, steel slag, and recycled asphalt shingles in the aggregate mix**, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, and exhausting to Stack SV#1. ~~This source does not use blast furnace slag, electric arc furnace steel mill slag, or recycled asphalt shingles (RAS), asbestos-free or otherwise, in their aggregate mix;~~

(2) one (1) aggregate dryer, identified as EU#4, equipped with one (1) burner, identified as EU#5, constructed in 2002 and modified in 2006, having a maximum heat input capacity of eighty-five (85.0) million British thermal units per hour and firing natural gas, No. 2 fuel oil, or waste oil, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, and exhausting to Stack SV#1,

(3) Material handling, screening, and conveying operations, constructed in 2002, uncontrolled and exhausting to the outside atmosphere, and consisting of the following:

(A) One (1) cold feed system, constructed prior to 2002, with a maximum throughput capacity of two hundred fifty (250) tons of asphalt per hour, and consisting of:

(i) Six (6) cold feed bins, identified as EU#1;

(ii) One (1) conveyor to the dryer, identified as EU#3;

(iii) One screen deck, identified as EU#7;

(iv) Hot aggregate storage bins, identified as EU#8; and

(v) One (1) aggregate weigh hopper, identified as EU#9;

(B) One (1) hot asphalt storage and conveyor system, having a maximum throughput capacity of two hundred (200) tons of asphalt per hour, and consisting of:

(i) One (1) drag-slat conveyor, identified as EU#11; and

(ii) Two (2) hot asphalt storage bins, identified as EU#35 and EU#36, constructed in 1985; and

(iii) one (1) hot asphalt storage bin, identified as EU#12, constructed

in 1996.

~~Note: This source obtains its aggregate from the quarry where it is located, therefore no storage piles, aside from the RAP, are included in the source description, or emission calculations, since they are already accounted for in the quarry's operating permit.~~

~~Under 40 CFR 60.90, Subpart I - New Source Performance Standards for Hot Mix Asphalt Facilities, this batch-mix, hot-mix asphalt operation is considered an affected facility.~~

(4) One (1) Recycled asphalt pavement (RAP) system, constructed in 2006, with a maximum throughput capacity of thirty (30) tons per hour, uncontrolled and exhausting to the outside atmosphere, and consisting of:

(A) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2014, with a maximum throughput capacity of 250 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 is considered a nonroad engine.

(~~1~~**B**) One (1) **RAP** feed bin, identified as EU#37**, and two (2) feeder conveyors**;

(~~2~~**C**) One (1) lump breaker, identified as EU#38**, with one (1) collector conveyor**;

(~~3~~**D**) One (1) **RAP scale** conveyor, identified as EU#39; ~~and~~

~~(4) Recycled asphalt pavement (RAP) storage piles, having a maximum height of twelve (12) feet and a maximum storage capacity of one and twenty-eight hundredths (1.28) tons.~~

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

(5) One (1) aggregate storage area, approved for modification 2014, with a maximum combined storage area of 5.0 acres, including:

(A) Limestone, dolomite, sand and gravel storage piles, with a combined maximum anticipated pile size of 2.75 acres;

(B) Recycled asphalt pavement (RAP) storage pile(s), with a maximum anticipated pile size of 2.25 acres;

(C) Blast furnace and/or steel slag storage pile(s), with a maximum anticipated pile size of 0.30 acres; and

(D) Recycled asphalt shingles (RAS) piles, with a maximum anticipated pile size of 0.15 acres.

Under 40 CFR 60.90, Subpart I, this batch-mix, hot-mix asphalt operation is considered an affected facility.

(b) One (1) cold-mix cutback asphalt production operation, identified as EU#11, constructed in 2002, using one (1) cyclone, identified as EU#16, and one (1) baghouse, identified as EU#19, to control particulate emissions, exhausting to Stack SV#1, and including:

(1) cold-mix (stockpile mix) asphalt storage piles;

Insignificant Activities: ~~Boilers~~

(a) One (1) liquid asphalt cement hot oil heating system, including the following:

(1) One (1) hot oil heater, identified as EU#13A, constructed in 1995, with a maximum heat input capacity of seven hundred thousandths (0.700) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV2; [326 IAC 6-2]

~~Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this is considered an affected facility.~~

(b) One (1) hot asphalt storage and slat conveyor transfer heater, identified as EU#33, with a maximum heat input capacity of five hundred thousandths (0.500) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV4; [326 IAC 6-2]

~~Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this 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~~**FACILITY OPERATION** REQUIREMENTS

Emissions Unit Description: ~~Recycled Asphalt Pavement (RAP) System~~

(4) One (1) Recycled asphalt pavement (RAP) system, constructed in 2006, with a maximum throughput capacity of thirty (30) tons per hour, uncontrolled and exhausting to the outside atmosphere, and consisting of:

(A) One (1) 173 horsepower, diesel fuel-fired portable RAP crusher and screener for processing reclaimed asphalt pavement (RAP), identified as EU002, approved for construction in 2014, with a maximum throughput capacity of 250 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 is considered a nonroad engine.

(~~1~~**B**) One (1) **RAP** feed bin, identified as EU#37**, and two (2) feeder conveyors**;

(~~2~~**C**) One (1) lump breaker, identified as EU#38**, with one (1) collector conveyor**;

(~~3~~**D**) One (1) **RAP scale** conveyor, identified as EU#39; ~~and~~

~~(4) Recycled asphalt pavement (RAP) storage piles, having a maximum height of twelve (12) feet and a maximum storage capacity of one and twenty-eight hundredths (1.28) tons.~~

Under 40 CFR 60, Subpart OOO, New Source Performance Standards for Nonmetallic Mineral Processing Plants, this 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.)

...

E.2.2 NSPS Subpart OOO Requirements - Standards of Performance for Nonmetallic Mineral Processing Plants [40 CFR Part 60, Subpart OOO] [326 IAC 12-1]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart OOO (included as Attachment C of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart OOO:

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

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

...

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.

~~**SECTION E.3 NESHAP REQUIREMENTS**~~

~~**Emissions Unit Description:** Boilers~~

~~(a) One (1) liquid asphalt cement hot oil heating system, including the following:~~

~~(1) One (1) hot oil heater, identified as EU#13A, constructed in 1995, with a maximum heat input capacity of seven hundred thousandths (0.700) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV2; [326 IAC 6-2]~~

~~Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this is considered an affected facility.~~

~~(b) One (1) hot asphalt storage and slat conveyor transfer heater, identified as EU#33, with a maximum heat input capacity of five hundred thousandths (0.500) million British thermal units per hour (MMBtu/hr), firing natural gas or No. 2 fuel oil, uncontrolled and exhausting to Stack SV4; [326 IAC 6-2]~~

~~Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this is considered an affected facility.~~

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

~~**National Emission Standards for Hazardous Air Pollutants (NESHAPs) Requirements [326 IAC 2-8-4(1)]**~~

~~E.3.1 General Provisions Relating to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR 63, Subpart JJJJJJ) [326 IAC 20-1] [40 CFR Part 63, Subpart A]~~

~~Pursuant to §63.11130, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 8 of 40 CFR Part 63, Subpart JJJJJJ, and in accordance with the schedule in 40 CFR 63 Subpart JJJJJJ.~~

~~E.3.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Industrial, Commercial, and Institutional Boilers Area Sources [40 CFR 63, Subpart JJJJJJ] [326 IAC 20]~~

~~Pursuant to 40 CFR § 63.11112(a), the emission sources to which this subpart applies are each new, reconstructed, or existing industrial, commercial, and/or institutional boiler within a subcategory (coal, biomass, oil), as listed in §63.11200 and defined in §63.11237, located at an area source.~~

~~The one (1) hot oil heater, identified as EU#13A, is therefore subject to the following portions of~~

~~Subpart JJJJJJ (6J) (included as Attachment D of this permit):~~

~~(A) 40 CFR 63.11193;~~
~~(B) 40 CFR 63.11194(a)(1),(b),(e);~~
~~(C) 40 CFR 63.11196(a)(1);~~
~~(D) 40 CFR 63.11200;~~
~~(E) 40 CFR 63.11201(b),(d);~~
~~(F) 40 CFR 63.11205(a);~~
~~(G) 40 CFR 63.11210(c);~~
~~(H) 40 CFR 63.11214(b);~~
~~(I) 40 CFR 63.11223(a),(b)(1) - (7);~~
~~(J) 40 CFR 63.11225(a),(b),(c),(d),(g);~~
~~(K) 40 CFR 63.11235~~
~~(L) 40 CFR 63.11236~~
~~(M) 40 CFR 63.11237~~
~~(N) Table 2~~
~~(O) Table 8~~

...

IDEM, OAQ made additional revisions to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

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

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

(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 ~~or of initial start-up, whichever is later,~~ 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 ~~or the date of initial startup, whichever is later,~~ 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 XXX by XXX as defined by XXX.
~~Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.~~

...

C.17 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 ***(Please see your permit rule cites***).

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.

...

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

FESOP Quarterly Report

...

Limit: The asphalt production rate shall not exceed 492,~~792~~ **148** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

...

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

FESOP Quarterly Report

...

Parameter: **Fuel & Slag Usage/** ~~Single Fuel Usage /~~ Sulfur dioxide (SO2) emissions

Emission Limits: ***Sulfur dioxide (SO_2)*** **emissions shall not exceed 96.33 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.09.**

~~Limit: Sulfur Dioxide (SO2) emissions from the dryer/mixer shall not exceed ninety-six and thirty-three (96.33) tons per twelve (12) consecutive month period. Additionally, Hydrogen Chloride (HCl) emissions shall not exceed ten (10) tons per twelve (12) consecutive month period, and any combination of HAPs shall not exceed twenty-five (25) tons per twelve (12) consecutive month period. When combusting only one type of fuel in the dryer/mixer burner, the usage of fuel shall be limited as follows:~~

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

Fuel and Slag Type (units)	Fuel and Slag Usage Limit (per 12 consecutive month period)
Natural Gas (million cubic feet)	745
No. 2 Distillate Fuel Oil ≤ 0.5 wt% sulfur (gallons)	2,~~713,647~~**400,971**
~~No. 4 Residual Fuel~~ **Waste** Oil ≤ 0.50 wt% sulfur (gallons)	~~2,621,346~~**1,500,200**
Blast Furnace Slag (tons)	**30,000**

QUARTER: _____ YEAR: _____

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 52.0 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:**

Type of Binder	Binder VOC Limits (tons per 12 consecutive month period)
Cutback Asphalt Rapid Cure	**54.70**
Cutback Asphalt Medium Cure	**74.23**
Cutback Asphalt Slow Cure	**207.84**
Emulsified Asphalt	**111.99**
Other Asphalt	**2,078.44**

~~The following fuel was the only fuel combusted over the previous 12 month period:_____~~

~~(combustion of more than one fuel requires the use of the "Multiple Fuel Quarterly Report" form)~~

~~Month~~	~~Column 1~~	~~Column 2~~	~~Column 1 + Column 2~~
	~~This Month~~	~~Previous 11 Months~~	~~12 Month Total~~
~~Month 1~~			
~~Month 2~~			
~~Month 3~~			

~~☐ No deviation occurred in this reporting period.~~

~~☐ Deviation/s occurred in this reporting period. Deviation has been reported on: _____~~

~~Submitted by: _____~~ ~~Date: _____~~

~~Title / Position: _____~~ ~~Phone: _____~~

~~Signature: _____~~

FESOP Quarterly Report - Fuel & Slag Usage / Sulfur dioxide (SO2) emissions

QUARTER: ____________ YEAR: _____________

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

☐ **No deviation occurred in this reporting period.** **Submitted by:** ____________________________ **Date:**___________________

☐ **Deviation/s occurred in this reporting period.** **Title / Position:** ___________________________ **Phone:** _________________

Deviation has been reported on: **Signature:**

FESOP Quarterly Report - Liquid Binder (Asphalt Emulsion) Usage / VOC Emissions ____________ Page 3 of 3
QUARTER: ____________ YEAR: ______________

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

☐ **No deviation occurred in this reporting period.**
☐ **Deviation/s occurred in this reporting period.**
Deviation has been reported on: _______________

Submitted by:_____________________________________ Date: ________________
Title / Position:__________________________________ Phone: _______________
Signature:____

VOC Emitted (tons/year) = <u>VOC solvent used for each binder (tons/year)</u>
Adjustment fact

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

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

FESOP Quarterly Report

Page 1 of 2

Source Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road 28, Ridgeville, Indiana 47380
FESOP Permit No.: F135-29992-03158
Facility: Dryer/Mixer
Parameter: **Multiple fuel Usage / Sulfur dioxide (SO2) emissions**
Limit: SO2 emissions from the dryer/mixer shall not exceed ninety-six and thirty-three (96.33) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Sulfur dioxide (SO2) emissions shall be determined using the following equation:

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

Where:
S = tons of sulfur dioxide emissions for a 12-month consecutive period
G = million cubic feet of natural gas used in the last 12 months
O = gallons of No. 2 distillate fuel oil used in last 12 months with less than or equal to 0.5% sulfur content
W = gallons of waste oil used in last 12 months with less than or equal to 0.50% sulfur
E_G = 0.60 lbs/million cubic feet of natural gas
E_O = 0.071 lbs/gallon of No. 2 distillate fuel oil
E_W = 0.0735 lbs/gallon of waste oil

FESOP Quarterly Report **Multiple fuel Usage / Sulfur dioxide (SO2) emissions** **Page 2 of 2**

QUARTER:_____ YEAR:_____

Month	Fuel Types (units)	Column 1	Column 2	Column 1 + Column 2	Equation Results	
		Usage This Month	Usage Previous 11 Months	Usage 12 Month Total	Emissions (tons per 12 months) SO2	NOx
Month 1	Natural Gas (million cubic feet)					
	No. 2 Fuel Oil (gallons)					
	Waste Fuel Oil (gallons)					
Month 2	Natural Gas (million cubic feet)					
	No. 2 Fuel Oil (gallons)					
	Waste Fuel Oil (gallons)					
Month 3	Natural Gas (million cubic feet)					
	No. 2 Fuel Oil (gallons)					
	Waste Fuel Oil (gallons)					

☐ 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:_____

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

FESOP Quarterly Report

Source Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road 28, Ridgeville, Indiana 47380
FESOP Permit No.: F135-29992-03158
Facility: Cold-mix (stockpile-mix) asphalt manufacturing operations and storage piles

Parameter: Single Liquid Binder Solvent Usage / VOC Emissions

Limit: Volatile Organic Compound (VOC) emissions from the use of liquid binders, containing VOC solvents as diluents, in the cold-mix asphalt manufacturing operations and storage piles shall not exceed fifty-four and ninety-seven hundredths (54.97) tons per twelve (12) consecutive month period. When using only one type of binder, the total VOC solvent usage shall be limited as follows:

Type of Binder	**Binder VOC Limits (tons per 12 consecutive month period)**
Cutback Asphalt Rapid Cure	57.86
Cutback Asphalt Medium Cure	78.53
Cutback Asphalt Slow Cure	219.88
Emulsified Asphalt	118.47
Other Asphalt	2,198.78

QUARTER: _____ YEAR: _____

The following liquid binder solvent was the only liquid binder solvent used over the previous 12 month period: _____ Limit applicable: _____

(use of more than one binder requires the use of the "Multiple Liquid Binder Solvents" report form)

Month	**Column 1**	**Column 2**	**Column 1 + Column 2**
	Liquid Binder Usage This Month (tons)	**Liquid Binder Usage Previous 11 Months (tons)**	**Liquid Binder Usage 12 Month Total (tons)**
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this reporting period.

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

Submitted by: _____ Date: _____

Title / Position: _____ Phone: _____

Signature: _____

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

FESOP Quarterly Report

Source Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road 28, Ridgeville, Indiana 47380
FESOP Permit No.: F135-29992-03158
Facility: Cold-mix (stockpile mix) asphalt manufacturing operations and storage piles
Parameter: **Multiple Liquid Binder Solvent Usage / VOC Emissions**
Limit: Volatile Organic Compound (VOC) emissions from the use of liquid binders, containing VOC solvents as diluents, in the cold-mix asphalt manufacturing operations and storage piles shall not exceed sixty-eight and eighty-nine hundredths (68.89) tons per twelve (12) consecutive month period. When using more than one type of binder, the Permittee shall limit VOC solvent usage as follows:

Type of Binder	**Binder VOC Limits (tons per 12 consecutive month period)**
Cutback Asphalt Rapid Cure	57.86
Cutback Asphalt Medium Cure	78.53
Cutback Asphalt Slow Cure	219.88
Emulsified Asphalt	118.47
Other Asphalt	2,198.78

The tons of VOC emitted per each type of binder, shall be determined using the following equation:

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

Where:

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

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 May 29, 2014.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed MSOP Significant Permit Revision No. 135-34588-03158. The staff recommends to the Commissioner that this MSOP Significant Permit Revision be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Nida Habeeb at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-8531 or toll free at 1-800-451-6027extension (4-8531)

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

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

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Milestone Contractors, L.P.
Source Location:	1972 West State Road 28, Ridgeville, Indiana 47380
County:	Randolph
SIC Code:	2951(Asphalt Paving Mixtures and Blocks)
Operation Permit No.:	F135-29992-03158
Operation Permit Issuance Date:	August 24, 2011
Significant Permit Revision No.:	135-34588-03158
Permit Reviewer:	Nida Habeeb

On August 29, 2014, the Office of Air Quality (OAQ) had a notice published in The News-Gazette in Winchester, Indiana, stating that Milestone Contractors, L.P. had applied for a modification to an existing stationary batch-mix, hot-mix, asphalt plant and cold-mix production operation. The notice also stated that the OAQ proposed to issue a FESOP Significant Permit Revision for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

No comments were received during the public notice period.

Additional Changes

IDEM, OAQ has decided to make additional revisions to the permit as described below, with deleted language as ~~strikeouts~~ and new language **bolded**.

(a) Typographical errors have been corrected.

***

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, F135-~~34588~~**29992**-03158, is issued for a fixed term of ~~five~~**ten** (~~5~~**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.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. ~~The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year.~~ All ~~subsequent~~ certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

***

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

(a) All terms and conditions of permits established prior to F135-~~34588~~**29992**-03158 and issued pursuant to permitting programs approved into the state implementation plan have been either:

***

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

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

***

C.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**, included** as ~~in~~ Attachment A.

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

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

***

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

***

(d) ~~The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period.~~ 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.

***

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION

Source Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road 28, Ridgeville, Indiana 47380
FESOP Permit No.: F135-~~34588~~**29992**-03158

***

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road 28, Ridgeville, Indiana 47380
FESOP Permit No.: F135-~~34588~~**29992**-03158

***

FESOP Quarterly Report

Source Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road 28, Ridgeville, Indiana 47380
FESOP Permit No.: F135-~~34588~~**29992**-03158
***

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

Source Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road 28, Ridgeville, Indiana 47380
FESOP Permit No.: F135-~~34588~~**29992**-03158
***

IDEM Contact

(a) Questions regarding this proposed FESOP Significant Permit Revision can be directed to Nida Habeeb at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-8531 or toll free at 1-800-451-6027 extension 4-8531.

(b) A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

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

Appendix A.1: Unlimited Emissions Calculations
Summary of Revision

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Unlimited/Uncontrolled Emissions

	Unlimited/Uncontrolled Potential to Emit of Revision (tons/year)										
	Criteria Pollutants							Greenhouse Gas Pollutants	Hazardous Air Pollutants		
Process Description	**PM**	**PM10**	**PM2.5**	**SO2**	**NOx**	**VOC**	**CO**	**CO_2e**	**Total HAPs**	**Worst Case HAP**	
Ducted Emissions											
Dryer/Mixer Slag Processing (worst case)	0.00	0.00	0.00	272.26	0	0	0	0	0	0	n/a
Diesel-Fired Generator < 600 HP**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Uncontrolled PTE of the Modification (TPY)	**0.00**	**0.00**	**0.00**	**272.26**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**Formaldehyde**

n/a = not applicable
negl = negligible
*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 Fuel component percentages provided by the source.
** The diesel-fired engine powering the portable RAP crusher is considered a non-road engine. Pursuant to 326 IAC 1-2-73, a source does not include mobile sources, nonroad engines, or nonroad vehicles. Therefore, the potentials to emit from this unit have not been counted towards 326 IAC 2-7 (Part 70 Permits) or 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).

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

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Asphalt Plant Maximum Capacity - Batch Mix

Maximum Hourly Asphalt Production =	200	ton/hr						
Maximum Annual Asphalt Production =	1,752,000	ton/yr						
Maximum Annual Blast Furnace Slag Usage =	735,840	ton/yr	1.5	% sulfur				
Maximum Annual Steel Slag Usage =	735,840	ton/yr	0.66	% sulfur				
Maximum Dryer Fuel Input Rate =	85.0	MMBtu/hr						
Natural Gas Usage =	745	MMCF/yr						
No. 2 Fuel Oil Usage =	5,318,571	gal/yr, and	0.50	% sulfur				
No. 4 Fuel Oil Usage =	0	gal/yr, and	0.00	% sulfur				
Residual (No. 5 or No. 6) Fuel Oil Usage =	0	gal/yr, and	0.00	% sulfur				
Propane Usage =	0	gal/yr, and	0.00	gr/100 ft3 sulfur				
Butane Usage =	0	gal/yr, and	0.00	gr/100 ft3 sulfur				
Used/Waste Oil Usage =	5,318,571	gal/yr, and	0.75	% sulfur	1.02	% ash	0.200	% chlorine, 0.010 % lead
Diesel Fuel Usage - Generator < 600 HP =	0	gal/yr,and						
Diesel Fuel Usage - Generator > 600 HP =	0	gal/yr	0.00	% sulfur				

Unlimited PM Dryer/Mixer Emission Factor =	32.0	lb/ton of asphalt production
Unlimited PM10 Dryer/Mixer Emission Factor =	4.5	lb/ton of asphalt production
Unlimited PM2.5 Dryer/Mixer Emission Factor =	0.27	lb/ton of asphalt production
Unlimited VOC Dryer/Mixer Emission Factor =	0.036	lb/ton of asphalt production
Unlimited CO Dryer/Mixer Emission Factor =	0.4	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

	Unlimited/Uncontrolled Potential to Emit (tons/year)										
	Criteria Pollutants							Greenhouse Gas Pollutants	Hazardous Air Pollutants		
Process Description	**PM**	**PM10**	**PM2.5**	**SO2**	**NOx**	**VOC**	**CO**	**CO_2e**	**Total HAPs**	**Worst Case HAP**	
Ducted Emissions											
Dryer Fuel Combustion (worst case)	173.60	138.34	138.34	293.19	53.19	2.66	31.27	60,104.41	38.11	35.10	HCL
Dryer/Mixer and Batch Tower (Process)	28,032.00	3,942.00	236.52	77.09	105.12	31.54	350.40	32,574.06	6.80	2.37	Formaldehyde
Dryer/Mixer Slag Processing (worst case)	0	0	0	272.26	0	0	0	0.00	0	0	n/a
Hot Oil Heater Fuel Combustion/Process (worst case)	0.04	0.07	0.07	1.55	0.44	0.02	0.26	613.20	0.007	0.006	Hexane
Hot Asphalt Storage & Conveyor System Heater Fuel Combustion (worst case)	0.03	0.03	0.03	1.11	0.31	0.01	0.18	353.55	0.005	negl.	n/a
Diesel-Fired Generator < 600 HP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	n/a
Diesel-Fired Generator > 600 HP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	n/a
Worst Case Emissions*	**28,032.08**	**3,942.10**	**236.62**	**568.11**	**105.87**	**31.56**	**350.84**	**61,071.16**	**38.13**	**35.10**	**HCL**
Fugitive Emissions											
Asphalt Load-Out, Silo Filling, On-Site Yard	0.97	0.97	0.97	0	0	15.01	2.52	0	0.25	0.08	Formaldehyde
Material Storage Piles	2.00	0.70	0.70	0	0	0	0	0	0	0	n/a
Material Processing and Handling	5.66	2.68	0.41	0	0	0	0	0	0	0	n/a
Material Crushing, Screening, and Conveying	27.80	10.15	10.15	0	0	0	0	0	0	0	n/a
Unpaved and Paved Roads (worst case)	71.19	18.14	1.81	0	0	0	0	0	0	0	n/a
Cold Mix Asphalt Production	0	0	0	0	0	21,054.66	0	0	5,491.83	1,894.92	Xylenes
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0.00	0	0	0.00	0.00	n/a
Volatile Organic Liquid Storage Vessels	0	0	0	0	0	negl	0	0	negl	0	n/a
Total Fugitive Emissions	**107.62**	**32.65**	**14.04**	**0.00**	**0.00**	**21,069.67**	**2.52**	**0.00**	**5,492.08**	**1,894.92**	**Xylenes**
Totals Unlimited/Uncontrolled PTE	**28,139.70**	**3,974.75**	**250.67**	**568.11**	**105.87**	**21,101.23**	**353.37**	**61,071.16**	**5,530.21**	**1,894.92**	**Xylenes**

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

*Worst Case Emissions (tons/yr) = Worst Case Emissions from Dryer Fuel Combustion and Dryer/Mixer + Worst Case Emissions From Dryer/Mixer Slag Processing + Worst Case Emissions from Hot Oil Heater Fuel Combustion and Hot Oil Heating System + Diesel-Fired Generator < 600 HP + Diesel-Fired Generator > 600 HP
Fuel component percentages provided by the source.

Appendix A.1: Unlimited Emissions Calculations
Dryer/Mixer Fuel Combustion with Maximum Capacity < 100 MMBtu/hr

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

The following calculations determine the unlimited/uncontrolled emissions created from the combustion of natural gas, fuel oil, propane, butane, or used/waste oil in the dryer/mixer at the source.

Maximum Capacity

Maximum Fuel Input Rate =	85	MMBtu/hr								
Natural Gas Usage =	745	MMCF/yr								
No. 2 Fuel Oil Usage =	5,318,571	gal/yr, and	0.50	% sulfur						
No. 4 Fuel Oil Usage =	0	gal/yr, and	0.00	% sulfur						
Residual (No. 5 or No. 6) Fuel Oil Usage =	0	gal/yr, and	0.00	% sulfur						
Propane Usage =	0	gal/yr, and	0.00	gr/100 ft3 sulfur						
Butane Usage =	0	gal/yr, and	0.00	gr/100 ft3 sulfur						
Used/Waste Oil Usage =	5,318,571	gal/yr, and	0.75	% sulfur	1.02	% ash	0.200	% chlorine,	0.010	% lead

Unlimited/Uncontrolled Emissions

	Emission Factor (units)							Unlimited/Uncontrolled Potential to Emit (tons/yr)							
Criteria Pollutant	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil* (lb/kgal)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/ Waste Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/ Waste Oil (tons/yr)	**Worse Case Fuel (tons/yr)**
PM	1.9	2.0	7.0	3.22	0.5	0.6	65.3	0.71	5.32	0.00	0.00	0.000	0.000	173.60	**173.60**
PM10/PM2.5	7.6	3.3	8.3	4.72	0.5	0.6	52.02	2.83	8.78	0.00	0.00	0.000	0.000	138.34	**138.34**
SO2	0.6	71.0	0.0	0.0	0.000	0.000	110.3	0.22	188.81	0.00	0.00	0.000	0.000	293.19	**293.19**
NOx	100	20.0	20.0	55.0	13.0	15.0	19.0	37.23	53.19	0.00	0.00	0.00	0.00	50.53	**53.19**
VOC	5.5	0.20	0.20	0.28	1.00	1.10	1.0	2.05	0.53	0.00	0.00	0.00	0.00	2.66	**2.66**
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	31.2732	13.30	0.00	0.00	0.00	0.00	13.30	**31.27**
Hazardous Air Pollutant															
HCl							13.2							35.10	**35.10**
Antimony			5.25E-03	5.25E-03			negl			0.00E+00	0.00E+00			negl	**0.0E+00**
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03			1.1E-01	7.4E-05	1.49E-03	0.00E+00	0.00E+00			2.93E-01	**2.9E-01**
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05			negl	4.5E-06	1.12E-03	0.00E+00	0.00E+00			negl	**1.1E-03**
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04			9.3E-03	4.1E-04	1.12E-03	0.00E+00	0.00E+00			2.47E-02	**2.5E-02**
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04			2.0E-02	5.2E-04	1.12E-03	0.00E+00	0.00E+00			5.32E-02	**5.3E-02**
Cobalt	8.4E-05		6.02E-03	6.02E-03			2.1E-04	3.1E-05		0.00E+00	0.00E+00			5.58E-04	**5.6E-04**
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03			0.55	1.9E-04	3.35E-03	0.00E+00	0.00E+00			1.5E+00	**1.46**
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03			6.8E-02	1.4E-04	2.23E-03	0.00E+00	0.00E+00			1.81E-01	**0.18**
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04				9.7E-05	1.12E-03	0.00E+00	0.00E+00				**1.1E-03**
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02			1.1E-02	7.8E-04	1.12E-03	0.00E+00	0.00E+00			2.93E-02	**0.029**
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04			negl	8.9E-06	5.58E-03	0.00E+00	0.00E+00			negl	**5.6E-03**
1.1.1-Trichloroethane			2.36E-04	2.36E-04						0.00E+00	0.00E+00				**0.0E+00**
1,3-Butadiene															**0.0E+00**
Acetaldehyde															**0.0E+00**
Acrolein															**0.0E+00**
Benzene	2.1E-03		2.14E-04	2.14E-04				7.8E-04		0.00E+00	0.00E+00				**7.8E-04**
Bis(2-ethylhexyl)phthalate							2.2E-03							5.85E-03	**5.9E-03**
Dichlorobenzene	1.2E-03						8.0E-07	4.5E-04						2.13E-06	**4.5E-04**
Ethylbenzene			6.36E-05	6.36E-05						0.00E+00	0.00E+00				**0.0E+00**
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				2.8E-02	1.62E-01	0.00E+00	0.00E+00				**0.162**
Hexane	1.8E+00							0.67							**0.670**
Phenol							2.4E-03							6.38E-03	**6.4E-03**
Toluene	3.4E-03		6.20E-03	6.20E-03				1.3E-03		0.00E+00	0.00E+00				**1.3E-03**
Total PAH Haps	negl		1.13E-03	1.13E-03			3.9E-02	negl		0.00E+00	0.00E+00			1.04E-01	**1.0E-01**
Polycyclic Organic Matter		3.30E-03							8.78E-03						**8.8E-03**
Xylene			1.09E-04	1.09E-04						0.00E+00	0.00E+00				**0.0E+00**
							Total HAPs	**0.70**	**0.19**	**0.00**	**0.00**	**0**	**0**	**37.26**	**38.11**
														Worst Case H	**35.10 HCL**

Methodology

Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
*Worst Case Emissions (tons/yr) = Worst Case Emissions from Dryer Fuel Combustion and Dryer/Mixer + Worst Case Emissions From Dryer/Mixer Slag Processing + Worst Ca
Propane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0905 MMBtu]
Butane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0974 MMBtu]
Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [ton/2000 lbs]
All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] * [Emission Factor (lb/kgal)] * [kgal/1000 gal] * [ton/2000 lbs]
Sources of AP-42 Emission Factors for fuel combustion:

Natural Gas :	AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4
No. 2, No.4, and No.6 Fuel Oil:	AP-42 Chapter 1.3 (dated 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11
Propane and Butane:	AP-42 Chapter 1.5 (dated 7/08), Tables 1.5-1 (assuming PM = PM10)
Waste Oil:	AP-42 Chapter 1.11 (dated 10/96), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5

*Since there are no specific AP-42 HAP emission factors for combustion of No. 4 fuel oil, it was assumed that HAP emissions from combustion of No. 4 fuel oil were equal to combustion of residual or No. 6 fuel oil.

Abbreviations

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

Appendix A.1: Unlimited Emissions Calculations
Greenhouse Gas (CO2e) Emissions from the
Dryer/Mixer Fuel Combustion with Maximum Capacity < 100 MMBtu/hr

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

The following calculations determine the unlimited/uncontrolled emissions created from the combustion of natural gas, fuel oil, propane, butane, or used/waste oil in the dryer/mixer at the source.

Maximum Capacity

Maximum Fuel Input Rate =	85	MMBtu/hr								
Natural Gas Usage =	745	MMCF/yr								
No. 2 Fuel Oil Usage =	5,318,571	gal/yr, and	0.50	% sulfur						
No. 4 Fuel Oil Usage =	0	gal/yr, and	0.00	% sulfur						
Residual (No. 5 or No. 6) Fuel Oil Usage =	0	gal/yr, and	0.00	% sulfur						
Propane Usage =	0	gal/yr, and	0.00	gr/100 ft3 sulfur						
Butane Usage =	0	gal/yr, and	0.00	gr/100 ft3 sulfur						
Used/Waste Oil Usage =	5,318,571	gal/yr, and	0.75	% sulfur	1.02	% ash	0.200	% chlorine,	0.010	% lead

Unlimited/Uncontrolled Emissions

	Emission Factor (units)						
CO2e Fraction	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil (lb/kgal)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)
CO2	120,161.84	22,501.41	24,153.46	24,835.04	12,500.00	14,506.73	22,024.15
CH4	2.49	0.91	0.97	1.00	0.60	0.67	0.89
N2O	2.2	0.26	0.19	0.53	0.9	0.9	0.18

Global Warming Potentials (GWP)		
Name	Chemical Formula	Global warming potential
Carbon dioxide	CO_2	1
Methane	CH_4	25
Nitrous oxide	N_2O	298

	Unlimited/Uncontrolled Potential to Emit (tons/yr)						
CO2e Fraction	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/ Waste Oil (tons/yr)
CO2	44,736.25	59,837.68	0.00	0.00	0.00	0.00	58,568.52
CH4	0.93	2.43	0.00	0.00	0.00	0.00	2.37
N2O	0.82	0.69	0.00	0.00	0.00	0.00	0.48
Total	44,738.00	59,840.80	0.00	0.00	0.00	0.00	58,571.37
CO2e Equivalent Emissions (tons/yr)	45,003.54	60,104.41	0.00	0.00	0.00	0.00	58,770.52

CO2e for Worst Case Fuel* (tons/yr)
60,104.41

Methodology
Fuel Usage from TSD Appendix A.1, page 1 of 14.
Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
Fuel Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.140 MMBtu]
Propane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.0915 MMBtu]
Butane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.102 MMBtu]
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Sources of Emission Factors for fuel combustion: (Note: To form a conservative estimate, the "worst case" emission factors have been used.)

Natural Gas: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/MMCF. Emission Factor for N2O from AP-42 Chapter 1.4 (dated 7/98), Table 1.4-2

No. 2, No. 4, and Residual (No. 5 or No. 6) Fuel Oil: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal. Emission Factor for N2O from AP-42 Chapter 1.3 (dated 5/10), Table 1.3-8

Propane: Emission Factor for CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, has been converted from kg/mmBtu to lb/kgal. Emission Factors for CO2 and N2O from AP-42 Chapter 1.5 (dated 7/08), Table 1.5-1

Butane: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal. Emission Factor for N2O from AP-42 Chapter 1.5 (dated 7/08), Table 1.5-1

Waste Oil: Emission Factors for CO2, CH4, and N2O from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal.

Emission Factor (EF) Conversions

Natural Gas: EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of Natural Gas (MMBtu/scf) * Conversion Factor (1,000,000 scf/MMCF)]
Fuel Oils: EF (lb/kgal) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of the Fuel Oil (MMBtu/gal) * Conversion Factor (1000 gal/kgal)]

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]
Unlimited Potential to Emit CO2e (tons/yr) = Unlimited Potential to Emit CO2 of "worst case" fuel (ton/yr) x CO2 GWP (1) + Unlimited Potential to Emit CH4 of "worst case" fuel (ton/yr) x CH4 GWP (25) + Unlimited Potential to Emit N2O of "worst case" fuel (ton/yr) x N2O GWP (298).

Abbreviations
PTE = Potential to Emit
CO2 = Carbon Dioxide
CH4 = Methane
N2O = Nitrogen Dioxide

Appendix A.1: Unlimited Emissions Calculations
Dryer/Mixer and Batch Tower - Process Emissions

Company Name: **Milestone Contractors, L.P.**
Source Address: **1972 West State Road, Ridgeville, IN 47380**
Permit Number: **135-34588-03158**
Reviewer: **Nida Habeeb**

The following calculations determine the unlimited/uncontrolled emissions from the aggregate drying/mixing and the batch tower.

Maximum Hourly Asphalt Production = 200 ton/hr
Maximum Annual Asphalt Production = 1,752,000 ton/yr

	Uncontrolled Emission Factors (lb/ton)			Unlimited/Uncontrolled Potential to Emit (tons/yr)			
	Batch-Mix Plant (dryer, hot screens, and mixer)			Batch-Mix Plant (dryer, hot screens, and mixer)			
Criteria Pollutant	Natural Gas	No. 2 Fuel Oil	Waste Oil	Natural Gas	No. 2 Fuel Oil	Waste Oil	**Worse Case PTE**
PM*	32	32	32	28032	28032	28032	**28032**
PM10*	4.5	4.5	4.5	3942	3942	3942	**3942**
PM2.5*	0.27	0.27	0.27	236.52	236.52	236.52	**236.5**
SO2**	0.0046	0.088	0.088	4.0	77.1	77.1	**77.1**
NOx**	0.025	0.12	0.12	21.9	105.1	105.1	**105.1**
VOC**	0.0082	0.0082	0.036	7.2	7.2	31.5	**31.5**
CO***	0.4	0.4	0.4	350.4	350.4	350.4	**350.4**
Hazardous Air Pollutant							
Arsenic	4.60E-07	4.60E-07	4.60E-07	4.03E-04	4.03E-04	4.03E-04	**4.03E-04**
Beryllium	1.50E-07	1.50E-07	1.50E-07	1.31E-04	1.31E-04	1.31E-04	**1.31E-04**
Cadmium	6.10E-07	6.10E-07	6.10E-07	5.34E-04	5.34E-04	5.34E-04	**5.34E-04**
Chromium	5.70E-07	5.70E-07	5.70E-07	4.99E-04	4.99E-04	4.99E-04	**4.99E-04**
Lead	8.90E-07	8.90E-07	1.00E-05	7.80E-04	7.80E-04	8.76E-03	**8.76E-03**
Manganese	6.90E-06	6.90E-06	6.90E-06	6.04E-03	6.04E-03	6.04E-03	**6.04E-03**
Mercury	4.10E-07	4.10E-07	4.10E-07	3.59E-04	3.59E-04	3.59E-04	**3.59E-04**
Nickel	3.00E-06	3.00E-06	3.00E-06	2.63E-03	2.63E-03	2.63E-03	**2.63E-03**
Selenium	4.90E-07	4.90E-07	4.90E-07	4.29E-04	4.29E-04	4.29E-04	**4.29E-04**
Acetaldehyde	3.20E-04	3.20E-04	3.20E-04	0.28		0.28	**0.28**
Benzene	2.80E-04	2.80E-04	2.80E-04	0.25	0.25	0.25	**0.25**
Ethylbenzene	2.20E-03	2.20E-03	2.20E-03	1.93	1.93	1.93	**1.93**
Formaldehyde	7.40E-04	7.40E-04	7.40E-04	0.65	0.65	0.65	**0.65**
Quinone	2.70E-04	2.70E-04	2.70E-04	0.24		0.24	**0.24**
Toluene	1.00E-03	1.00E-03	1.00E-03	0.88	0.88	0.88	**0.88**
Total PAH Haps	1.10E-04	1.10E-04	2.30E-04	0.10	0.10	0.20	**0.20**
Xylene	2.70E-03	2.70E-03	2.70E-03	2.37	2.37	2.37	**2.37**
					Total HAPs		**6.80**
Methodology					**Worst Single HAP**		**2.37** **Formaldehyde**

Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-1, 11.1-2, 11.1-5, 11.1-6, 11.1-19, and 11.1-11
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
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (< 2.5 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC - Volatile Organic Compounds
CO = Carbon Monoxide
HAP = Hazardous Air Pollutant
HCl = Hydrogen Chloride
PAH = Polyaromatic Hydrocarbon

Appendix A.1: Unlimited Emissions Calculations
Greenhouse Gas (CO2e) Emissions from the
Batch-Mix Plant (Dryer/Mixer) Process Emissions

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

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

Maximum Hourly Asphalt Production = 200 ton/hr
Maximum Annual Asphalt Production = 1,752,000 ton/yr

	Emission Factor (lb/ton) Batch-Mix Plant (dryer/mixer)				Unlimited/Uncontrolled Potential to Emit (tons/yr) Batch-Mix Plant (dryer/mixer)			
Criteria Pollutant	Natural Gas	No. 2 Fuel Oil	Waste Oil	Global Warming Potentials (GWP)	Natural Gas	No. 2 Fuel Oil	Waste Oil	**CO2e for Worst Case Fuel (tons/yr)**
CO2	37	37	37	1	32,412.00	32,412.00	32,412.00	
CH4	0.0074	0.0074	0.0074	25	6.48	6.48	6.48	
N2O				298	0	0	0	**32,574.06**
				Total	32,418.48	32,418.48	32,418.48	
CO2e Equivalent Emissions (tons/yr)					32,574.06	32,574.06	32,574.06	

Methodology
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.
Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-7 and 11.1-8
There are no emission factors for N20 available in either the 40 CFR 98, Subpart C or AP-42 Chapter 11.1. Therefore, it is assumed that there are no N2O emission anticipated from this process.
Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
Unlimited Potential to Emit CO2e (tons/yr) = Unlimited Potential to Emit CO2 of "worst case" fuel (ton/yr) x CO2 GWP (1) + Unlimited Potential to Emit CH4 of "worst case" fuel (ton/yr) x CH4 GWP (25) + Unlimited Potential to Emit N2O of "worst case" fuel (ton/yr) x N2O GWP (298).

Abbreviations
CO2 = Carbon Dioxide CH4 = Methane N2O = Nitrogen Dioxide PTE = Potential to Emit

Appendix A.1: Unlimited Emissions Calculations
Dryer/Mixer Slag Processing

Company Name: **Milestone Contractors, L.P.**
Source Address: **1972 West State Road, Ridgeville, IN 47380**
Permit Number: **135-34588-03158**
Reviewer: **Nida Habeeb**

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

Maximum Annual Blast Furnace Slag Usage =	735,840	ton/yr	1.5	% sulfur
Maximum Annual Steel Slag Usage =	735,840	ton/yr	0.66	% sulfur

Type of Slag	SO2 Emission Factor (lb/ton)	Unlimited Potential to Emit SO2 (tons/yr)
Blast Furnace Slag*	0.74	272.3
Steel Slag**	0.0014	0.5

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 Location: **1972 West State Road, Ridgeville, IN 47380**
Permit Number: **135-34588-03158**
Reviewer: **Nida Habeeb**

Maximum Hot Oil Heater Fuel Input Rate =	0.70	MMBtu/hr		
Natural Gas Usage =	6	MMCF/yr		
No. 2 Fuel Oil Usage =	43,800	gal/yr, and	0.50	% sulfur

Unlimited/Uncontrolled Emissions

	Emission Factor (units)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		
	Hot Oil Heater		Hot Oil Heater		
Criteria Pollutant	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	**Worse Case Fuel (tons/yr)**
PM	1.9	2.0	0.006	0.044	**0.04**
PM10/PM2.5	7.6	3.3	0.023	0.072	**0.07**
SO2	0.6	71.0	0.002	1.555	**1.55**
NOx	100	20.0	0.307	0.438	**0.44**
VOC	5.5	0.20	0.017	0.004	**0.02**
CO	84	5.0	0.258	0.110	**0.26**
Hazardous Air Pollutant					
Arsenic	2.0E-04	5.6E-04	6.1E-07	1.23E-05	**1.2E-05**
Beryllium	1.2E-05	4.2E-04	3.7E-08	9.20E-06	**9.2E-06**
Cadmium	1.1E-03	4.2E-04	3.4E-06	9.20E-06	**9.2E-06**
Chromium	1.4E-03	4.2E-04	4.3E-06	9.20E-06	**9.2E-06**
Cobalt	8.4E-05		2.6E-07		**2.6E-07**
Lead	5.0E-04	1.3E-03	1.5E-06	2.76E-05	**2.8E-05**
Manganese	3.8E-04	8.4E-04	1.2E-06	1.84E-05	**1.8E-05**
Mercury	2.6E-04	4.2E-04	8.0E-07	9.20E-06	**9.2E-06**
Nickel	2.1E-03	4.2E-04	6.4E-06	9.20E-06	**9.2E-06**
Selenium	2.4E-05	2.1E-03	7.4E-08	4.60E-05	**4.6E-05**
Benzene	2.1E-03		6.4E-06		**6.4E-06**
Dichlorobenzene	1.2E-03		3.7E-06		**3.7E-06**
Ethylbenzene					**0.0E+00**
Formaldehyde	7.5E-02	6.10E-02	2.3E-04	1.34E-03	**1.3E-03**
Hexane	1.8E+00		0.01		**5.5E-03**
Phenol					**0.0E+00**
Toluene	3.4E-03		1.0E-05		**1.0E-05**
Total PAH Haps	negl		negl		**0.0E+00**
Polycyclic Organic Matter		3.30E-03		7.23E-05	**7.2E-05**
		Total HAPs =	**5.8E-03**	**1.6E-03**	**0.007**
		Worse Single HAP =	**5.5E-03 (Hexane)**	**1.3E-03 (Formaldehyde)**	**5.5E-03 (Hexane)**

Methodology
Equivalent Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
Equivalent Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.140 MMBtu]
Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [ton/2000 lbs]
All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] * [Emission Factor (lb/kgal)] * [kgal/1000 gal] * [ton/2000 lbs]
Sources of AP-42 Emission Factors for fuel combustion:
Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4
No. 2 Fuel Oil: AP-42 Chapter 1.3 (dated 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
CO = Carbon Monoxide
HAP = Hazardous Air Pollutant
HCl = Hydrogen Chloride
PAH = Polyaromatic Hydrocarbon

Appendix A.1: Unlimited Emissions Calculations
Greenhouse Gas (CO2e) Emissions from
Hot Oil Heater Fuel Combustion with Maximum Capacity < 100 MMBtu/hr

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Maximum Hot Oil Heater Fuel Input Rate =	0.70	MMBtu/hr		
Natural Gas Usage =	6.13	MMCF/yr		
No. 2 Fuel Oil Usage =	43,800.00	gal/yr,	0.50	% sulfur

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units) Natural Gas (lb/MMCF)	Emission Factor (units) No. 2 Fuel Oil (lb/kgal)	Global Warming Potentials (GWP)	Unlimited/Uncontrolled Potential to Emit (tons/yr) Natural Gas (tons/yr)	Unlimited/Uncontrolled Potential to Emit (tons/yr) No. 2 Fuel Oil (tons/yr)
CO2	120,161.84	22,501.41	1	368.42	492.78
CH4	2.49	0.91	25	0.01	0.02
N2O	2.2	0.26	298	0.01	0.01
				368.43	492.81
CO2e Equivalent Emissions (tons/yr)				370.62	494.98

Worse Case CO2e Emissions (tons/yr)
494.98

Methodology
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
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]
Sources of Emission Factors for fuel combustion: (Note: To form a conservative estimate, the "worst case" emission factors have been used.)

Natural Gas: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/MMCF. Emission Factor for N2O from AP-42 Chapter 1.4 (dated 7/98), Table 1.4-2

No. 2 Fuel Oil: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal. Emission Factor for N2O from AP-42 Chapter 1.3 (dated 5/10), Table 1.3-8

Emission Factor (EF) Conversions

Natural Gas: EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of Natural Gas (MMBtu/scf) * Conversion Factor (1,000,000 scf/MMCF)]

Fuel Oils: EF (lb/kgal) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of the Fuel Oil (MMBtu/gal) * Conversion Factor (1000 gal/kgal)]

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]

Unlimited Potential to Emit CO2e (tons/yr) = Unlimited Potential to Emit CO2 of "worst case" fuel (ton/yr) x CO2 GWP (1) + Unlimited Potential to Emit CH4 of "worst case" fuel (ton/yr) x CH4 GWP (25) + Unlimited Potential to Emit N2O of "worst case" fuel (ton/yr) x N2O GWP (298).

Abbreviations
CO2 = Carbon Dioxide
CH4 = Methane
N2O = Nitrogen Dioxide
PTE = Potential to Emit

Appendix A.1: Unlimited Emissions Calculations
Hot Oil Heating System - Process Emissions

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

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 =	0.70	MMBtu/hr
Natural Gas Usage =	6.13	MMCF/yr, and
No. 2 Fuel Oil Usage =	43,800.00	gal/yr

	Emission Factors		Unlimited/Uncontrolled Potential to Emit (tons/yr)		
Criteria Pollutant	Natural Gas (lb/ft3)	No. 2 Fuel Oil (lb/gal)	Natural Gas	No. 2 Fuel Oil	**Worse Case PTE**
VOC	2.60E-08	2.65E-05	7.97E-05	0.001	**0.001**
CO	8.90E-06	0.0012	0.027	0.026	**0.027**
Greenhouse Gas as CO2e*					
CO2	0.20	28.00	613.20	613.20	**613.20**
Hazardous Air Pollutant					
Formaldehyde	2.60E-08	3.50E-06	7.97E-05	7.67E-05	**7.97E-05**
Acenaphthene		5.30E-07		1.16E-05	**1.16E-05**
Acenaphthylene		2.00E-07		4.38E-06	**4.38E-06**
Anthracene		1.80E-07		3.94E-06	**3.94E-06**
Benzo(b)fluoranthene		1.00E-07		2.19E-06	**2.19E-06**
Fluoranthene		4.40E-08		9.64E-07	**9.64E-07**
Fluorene		3.20E-08		7.01E-07	**7.01E-07**
Naphthalene		1.70E-05		3.72E-04	**3.72E-04**
Phenanthrene		4.90E-06		1.07E-04	**1.07E-04**
Pyrene		3.20E-08		7.01E-07	**7.01E-07**
			Total HAPs	**5.84E-04**	
			Worst Single HAP	**3.72E-04**	**(Naphthalene)**

Methodology
Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
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)
Unlimited Potential to Emit CO2e (tons/yr) = Unlimited Potential to Emit CO2 (ton/yr) x CO2 GWP (1)
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

*Note: There are no emission factors for CH4 and N20 available in either 40 CFR 98, Subpart C or AP-42 Chapter 11.1. Therefore, it is assumed that there are no CH4 and N2O emission anticipated from this process.

Abbreviations
CO = Carbon Monoxide VOC = Volatile Organic Compound CO2 = Carbon Dioxide

Unlimited Emissions Calculations
Hot Asphalt Storage and Conveyor System Heater
Fuel Combustion with Maximum Capacity < 100 MMBtu/hr
for the Hot Asphalt Storage & Conveyor System Heater

Company Name: **Milestone Contractors, L.P.**
Source Address: **1972 West State Road, Ridgeville, IN 47380**
Permit Number: **135-34588-03158**
Reviewer: **Nida Habeeb**

Maximum Hot Oil Heater Fuel Input Rate = 0.50 MMBtu/hr
Natural Gas Usage = 4 MMCF/yr
No. 2 Fuel Oil Usage = 31,286 gal/yr, and 0.50 % sulfur

Unlimited/Uncontrolled Emissions

	Emission Factor (units)		Unlimited/Uncontrolled		
	Hot Oil Heater		Hot Oil Heater		
Criteria Pollutant	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	**Worse Case Fuel (tons/yr)**
PM	1.9	2.0	0.004	0.031	**0.03**
PM10/PM2.5	7.6	3.3	0.017	0.052	**0.05**
SO2	0.6	71.0	0.001	1.111	**1.11**
NOx	100	20.0	0.219	0.313	**0.31**
VOC	5.5	0.20	0.012	0.003	**0.01**
CO	84	5.0	0.184	0.078	**0.18**
Hazardous Air Pollutant					
Arsenic	2.0E-04	5.6E-04	4.4E-07	8.76E-06	**8.8E-06**
Beryllium	1.2E-05	4.2E-04	2.6E-08	6.57E-06	**6.6E-06**
Cadmium	1.1E-03	4.2E-04	2.4E-06	6.57E-06	**6.6E-06**
Chromium	1.4E-03	4.2E-04	3.1E-06	6.57E-06	**6.6E-06**
Cobalt	8.4E-05		1.8E-07		**1.8E-07**
Lead	5.0E-04	1.3E-03	1.1E-06	1.97E-05	**2.0E-05**
Manganese	3.8E-04	8.4E-04	8.3E-07	1.31E-05	**1.3E-05**
Mercury	2.6E-04	4.2E-04	5.7E-07	6.57E-06	**6.6E-06**
Nickel	2.1E-03	4.2E-04	4.6E-06	6.57E-06	**6.6E-06**
Selenium	2.4E-05	2.1E-03	5.3E-08	3.29E-05	**3.3E-05**
Benzene	2.1E-03		4.6E-06		**4.6E-06**
Dichlorobenzene	1.2E-03		2.6E-06		**2.6E-06**
Ethylbenzene					**0**
Formaldehyde	7.5E-02	6.10E-02	1.6E-04	9.54E-04	**9.5E-04**
Hexane	1.8E+00		0.00		**0.0039**
Phenol					**0**
Toluene	3.4E-03		7.4E-06		**7.4E-06**
Total PAH Haps	negl		negl		**0**
Polycyclic Organic Matter		3.30E-03		5.16E-05	**5.2E-05**
Total HAPs =	**4.1E-03**		**1.1E-03**		**0.005**
			Worst Single HAF		3.9E-03

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
All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] *
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 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
VOC - Volatile Organic Compounds
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
CO = Carbon Monoxide
HAP = Hazardous Air Pollutant
HCl = Hydrogen Chloride
PAH = Polyaromatic Hydrocarbon

Appendix A.1: Unlimited Emissions Calculations
Greenhouse Gas (CO2e) Emissions from
Fuel Combustion with Maximum Capacity < 100 MMBtu/hr
for the Hot Asphalt Storage & Conveyor System Heater

Company Name: **Milestone Contractors, L.P.**
Source Address: **1972 West State Road, Ridgeville, IN 47380**
Permit Number: **135-34588-03158**
Reviewer: **Nida Habeeb**

Maximum Hot Oil Heater Fuel Input Rate =	0.50	MMBtu/hr		
Natural Gas Usage =	4	MMCF/yr		
No. 2 Fuel Oil Usage =	31,286	gal/yr,	0.50	% sulfur

Unlimited/Uncontrolled Emissions

	Emission Factor (units)			Potential to Emit (tons/yr)		
Criteria Pollutant	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Greenhouse Global Warming Potentials (GWP)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	**Worse Case CO2e Emissions (tons/yr)**
CO2	120,161.84	22,501.41	1	263.15	351.99	**353.55**
CH4	2.49	0.91	21	0.01	0.01	
N2O	2.2	0.26	310	0.00	0.00	
			Total	**263.16**	**352.00**	
			CO2e Equivalent Emissions (tons/yr)	264.76	353.55	**No. 2 fuel oil**

Methodology
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
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]
Sources of Emission Factors for fuel combustion: (Note: To form a conservative estimate, the "worst case" emission factors have been used.)
Natural Gas: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been
No. 2 Fuel Oil: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been
Propane: Emission Factor for CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, has been converted from
Butane: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been
Emission Factor (EF) Conversions
Natural Gas: EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of Natural Gas
Fuel Oils: EF (lb/kgal) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of the Fuel Oil
Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] * [Emission Factor
All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] * [Emission Factor (lb/kgal)] *
Unlimited Potential to Emit CO2e (tons/yr) = Unlimited Potential to Emit CO2 of "worst case" fuel (ton/yr) x CO2 GWP (1) + Unlimited
Note: No. 2 fuel oil is the "worst case" fuel

Abbreviations
CO2 = Carbon Dioxide
CH4 = Methane
N2O = Nitrogen Dioxide
PTE = Potential to Emit

Appendix A.1: Unlimited Emissions Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Output Horsepower Rating (hp)	0.0
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	0
Maximum Diesel Fuel Usage (gal/yr)	0

	Pollutant						
	PM[2]	PM10[2]	direct PM2.5[2]	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Emission Factor in lb/kgal[1]	43.07	43.07	43.07	40.13	606.85	49.22	130.77
Potential Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

[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.

[1]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)

[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)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs[3]
Emission Factor in lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	3.91E-05	1.18E-03	7.67E-04	9.25E-05	1.68E-04
Emission Factor in lb/kgal[4]	1.28E-01	5.60E-02	3.91E-02	5.36E-03	1.62E-01	1.05E-01	1.27E-02	2.30E-02
Potential Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

[3]PAH = Polyaromatic 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.

[4]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)

Potential Emission of Total HAPs (tons/yr)	**0.00E+00**
Potential Emission of Worst Case HAPs (tons/yr)	**0.00E+00**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2[5]	CH4[6]	N2O[6]
Emission Factor in lb/hp-hr	1.15	NA	NA
Emission Factor in kg/MMBtu	NA	0.003	0.0006
Emission Factor in lb/kgal	22,512.07	0.91	0.18
Potential Emission in tons/yr	0.00	0.000	0.000

[5]The AP-42 Chapter 3.3-1 emission factor in lb/hp-hr was converted to lb/kgal emission factor 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.

[5]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)

[6]The 40 CFR 98 Subpart C emission factors in kg/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) = 40 CFR 98 EF (kg/MMBtu) * 2.20462 (lb/kg) * 1/10^6 (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Summed Potential Emissions in tons/yr	**0.00**
CO2e Total in tons/yr	**0.00**

Methodology

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]

Maximum Diesel Fuel Usage (gal/yr) = Potential Throughput (hp-hr/yr) * 7000 (Btu/hp-hr) * 1/19300 (lb/Btu) * 1/7.1 (gal/lb)

Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2 and have been converted to lb/kgal

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2 and have been converted to lb/kgal

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Emissions (tons/yr) = [Maximum Diesel Fuel Usage (gal/yr) x Emission Factor (lb/kgal)] / (1,000 ga/kgal) / (2,000 lb/ton)
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

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: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Output Horsepower Rating (hp)	0.0
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	0
Maximum Diesel Fuel Usage (gal/yr)	0

Sulfur Content (S) of Fuel (% by weight): 0.50

	Pollutant						
	PM	PM10[2]	direct PM2.5[2]	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04			4.05E-03 *(.00809S)*	2.40E-02	7.05E-04	5.50E-03
Emission Factor in lb/MMBtu		0.0573	0.0573				
Emission Factor in lb/kgal[1]	13.70	7.85	7.85	79.18	469.82	13.80	107.67
Potential Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

[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.
[1]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)

[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.

[2]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)

Hazardous Air Pollutants (HAPs)

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs[3]
Emission Factor in lb/MMBtu	7.76E-04	2.81E-04	1.93E-04	7.89E-05	2.52E-05	7.88E-06	2.12E-04
Emission Factor in lb/kgal[4]	1.06E-01	3.85E-02	2.64E-02	1.08E-02	3.45E-03	1.08E-03	2.91E-02
Potential Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

[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.

[4]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)

Potential Emission of Total HAPs (tons/yr)	**0.00E+00**
Potential Emission of Worst Case HAPs (tons/yr)	**0.00E+00**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2[5]	CH4[5,6]	N2O[7]
Emission Factor in lb/hp-hr	1.16	6.35E-05	NA
Emission Factor in kg/MMBtu	NA	NA	0.0006
Emission Factor in lb/kgal	22,707.83	1.24	0.18
Potential Emission in tons/yr	0.00	0.00	0.00

[5] 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.
[5]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)

[6]According to AP-42, Table 3.4-1, TOC (as CH4) is 9% methane by weight. As a result, the lb/hp-hr emission factor for TOC (as CH4) in AP-42 has been multiplied by 9% to determine the portion that is emitted as methane.
[7]The 40 CFR 98 Subpart C emission factors in kg/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.

[7]Emission factor (lb/kgal) = 40 CFR 98 EF (kg/MMBtu) * 2.20462 (lb/kg) * 1/10^6 (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Summed Potential Emissions in tons/yr	**0.00**
CO2e Total in tons/yr	**0.00**

Methodology

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]

Maximum Diesel Fuel Usage (gal/yr) = Potential Throughput (hp-hr/yr) * 7000 (Btu/hp-hr) * 1/19300 (lb/Btu) * 1/7.1 (gal/lb)

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4 and have been converted to lb/kgal.

N2O Emission Factor from 40 CFR 98 Subpart C Table C-2 and have been converted to lb/kgal.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Emissions (tons/yr) = [Maximum Diesel Fuel Usage (gal/yr) x Emission Factor (lb/kgal)] / (1,000 ga/kgal) / (2,000 lb/ton)
*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 +

Appendix A.1: Unlimited Emissions Calculations
Asphalt Load-Out, Silo Filling, and Yard Emissions

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

The following calculations determine the unlimited/uncontrolled fugitive emissions from hot asphalt mix load-out, silo filling, and on-site yard for a drum mix hot mix asphalt plant

Asphalt Temperature, T =	325	F
Asphalt Volatility Factor, V =	-0.5	
Maximum Annual Asphalt Production =	1,752,000	tons/yr

	Emission Factor (lb/ton asphalt)			Unlimited/Uncontrolled Potential to Emit (tons/yr)			
Pollutant	**Load-Out**	**Silo Filling**	**On-Site Yard**	**Load-Out**	**Silo Filling**	**On-Site Yard**	**Total**
Total PM*	5.2E-04	5.9E-04	NA	0.46	0.51	NA	**0.97**
Organic PM	3.4E-04	2.5E-04	NA	0.30	0.222	NA	**0.52**
TOC	0.004	0.012	0.001	3.64	10.68	0.964	**15.3**
CO	0.001	0.001	3.5E-04	1.18	1.034	0.308	**2.52**

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

PM/HAPs	**0.021**	**0.025**	**0**	**0.046**
VOC/HAPs	**0.054**	**0.136**	**0.014**	**0.204**
non-VOC/HAPs	**2.8E-04**	**2.9E-05**	**7.4E-05**	**3.8E-04**
non-VOC/non-HAPs	**0.26**	**0.15**	**0.07**	**0.49**

Total VOCs	**3.42**	**10.68**	**0.9**	**15.0**
Total HAPs	**0.08**	**0.16**	**0.014**	**0.25**
			Worst Single HAP	**0.078 (formaldehyde)**

Methodology
The asphalt temperature and volatility factor were provided by the source.
Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-14, 11.1-15, and 11.1-16
Plant Load-Out Emission Factor Equations (AP-42 Table 11.1-14)::
Total PM/PM10/PM2.5 Ef = 0.000181 + 0.00141(-V)e^((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
CO = Carbon Monoxide
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound

Appendix A.1: Unlimited Emissions Calculations
Asphalt Load-Out, Silo Filling, and Yard Emissions (continued)

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Organic Particulate-Based Compounds (Table 11.1-15)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Unlimited/Uncontrolled Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of Total Organic PM)	Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)	Load-out	Silo Filling	Onsite Yard	Total
PAH HAPs										
Acenaphthene	83-32-9	PM/HAP	POM	Organic PM	0.26%	0.47%	7.8E-04	1.0E-03	NA	1.8E-03
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	0.014%	8.4E-05	3.1E-05	NA	1.1E-04
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	0.13%	2.1E-04	2.9E-04	NA	5.0E-04
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	0.056%	5.7E-05	1.2E-04	NA	1.8E-04
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	0	2.3E-05	0	NA	2.3E-05
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	0	6.6E-06	0	NA	6.6E-06
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	0	5.7E-06	0	NA	5.7E-06
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	0	6.9E-06	0	NA	6.9E-06
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	0.0095%	2.3E-05	2.1E-05	NA	4.4E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	0.21%	3.1E-04	4.7E-04	NA	7.7E-04
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	0	1.1E-06	0	NA	1.1E-06
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	0.15%	1.5E-04		NA	1.5E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.01%	2.3E-03	2.2E-03	NA	4.5E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	0	1.4E-06	0	NA	1.4E-06
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	5.27%	7.1E-03	1.2E-02	NA	0.019
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	1.82%	3.7E-03	4.0E-03	NA	7.8E-03
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	0.03%	6.6E-05	6.7E-05	NA	1.3E-04
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.80%	2.4E-03	4.0E-03	NA	6.4E-03
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	0.44%	4.5E-04	9.8E-04	NA	1.4E-03
Total PAH HAPs							**0.018**	**0.025**	**NA**	**0.043**
Other semi-volatile HAPs										
Phenol		PM/HAP	---	Organic PM	1.18%	0	3.5E-03	0	0	3.5E-03

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

Methodology
Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Speciation Profile (%)] * [Organic PM (tons/yr)]
Speciation Profiles from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-15 and 11.1-16

Abbreviations
PM = Particulate Matter
HAP = Hazardous Air Pollutant
POM = Polycyclic Organic Matter

Appendix A.1: Unlimited Emissions Calculations
Asphalt Load-Out, Silo Filling, and Yard Emissions (continued)

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Organic Volatile-Based Compounds (Table 11.1-16)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Unlimited/Uncontrolled Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of TOC)	Silo Filling and Asphalt Storage Tank (% by weight of TOC)	Load-out	Silo Filling	Onsite Yard	Total
VOC		VOC	---	TOC	94%	100%	**3.42**	**10.68**	**0.91**	**15.01**
non-VOC/non-HAPS										
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	0.26%	2.4E-01	2.8E-02	6.3E-02	0.327
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	0.055%	1.7E-03	5.9E-03	4.4E-04	0.008
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.10%	2.6E-02	1.2E-01	6.8E-03	0.150
*Worst Case Emissions (tons/yr) = Worst Case Emissions from Dryer Fuel Combustion and Dry					7.30%	1.40%	**0.266**	**0.149**	**0.070**	**0.49**
Volatile organic HAPs										
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	0.032%	1.9E-03	3.4E-03	5.0E-04	5.8E-03
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	0.0049%	3.5E-04	5.2E-04	9.3E-05	9.7E-04
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	0.039%	1.8E-03	4.2E-03	4.7E-04	6.4E-03
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	0.016%	4.7E-04	1.7E-03	1.3E-04	2.3E-03
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	0.004%	7.7E-06	4.3E-04	2.0E-06	4.4E-04
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	0.023%	5.5E-04	2.5E-03	1.4E-04	3.1E-03
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	0	4.0E-03	0	1.1E-03	5.1E-03
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	0.038%	1.0E-02	4.1E-03	2.7E-03	0.017
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	0.69%	3.2E-03	7.4E-02	8.5E-04	0.078
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	0.10%	5.5E-03	1.1E-02	1.4E-03	0.018
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	0.00031%	6.6E-05	3.3E-05	1.7E-05	1.2E-04
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0.00027%	0	2.9E-05	0	2.9E-05
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	0.0054%	2.7E-04	5.8E-04	7.0E-05	9.1E-04
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	0	2.8E-04	0	7.4E-05	3.5E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	0.062%	7.7E-03	6.6E-03	2.0E-03	0.016
1,1,1-Trichloroethane	71-55-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichloroethene	79-01-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	VOC/HAP	---	TOC	0.0013%	0	4.7E-05	0	1.3E-05	6.0E-05
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	0.20%	1.5E-02	2.1E-02	4.0E-03	0.040
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	0.057%	2.9E-03	6.1E-03	7.7E-04	9.8E-03
Total volatile organic HAPs					1.50%	1.30%	**0.055**	**0.139**	**0.014**	**0.208**

Methodology
Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Speciation Profile (%)] * [TOC (tons/yr)]
Speciation Profiles from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-15 and 11.1-16

Abbreviations
TOC = Total Organic Compounds
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
MTBE = Methyl tert butyl ether

Appendix A.1: Unlimited Emissions Calculations
Material Storage Piles

Company Name: **Milestone Contractors, L.P.**
Source Address: **1972 West State Road, Ridgeville, IN 47380**
Permit Number: **135-34588-03158**
Reviewer: **Nida Habeeb**

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*(s/1.5)*(365-p)/235*(f/15)
where 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

Material	Silt Content (wt %)*	Emission Factor (lb/acre/day)	Maximum Anticipated Pile Size (acres)**	PTE of PM (tons/yr)	PTE of PM10/PM2.5 (tons/yr)
Sand	2.6	3.01	2.75	1.510	0.529
Limestone	1.6	1.85	0	0.000	0.000
RAP	0.5	0.58	2.25	0.238	0.083
Gravel	1.6	1.85	0	0.000	0.000
Shingles	0.5	0.58	0.15	0.016	0.006
Slag	3.8	4.40	0.30	0.241	0.084
			Totals	**2.00**	**0.70**

Note:

The source has limestone, dolomite, sand and gravel storage piles, with a combined maximum anticipated pile size of 2.75 acres, therefore the worst case emission factor for sand was used to calculate the PTE.

Methodology
PTE of PM (tons/yr) = (Emission Factor (lb/acre/day)) * (Maximum Pile Size (acres)) * (ton/2000 lbs) * (8760 hours/yr)
PTE of PM10/PM2.5 (tons/yr) = (Potential PM Emissions (tons/yr)) * 35%
*Silt content values obtained from AP-42 Table 13.2.4-1 (dated 1/95)
**Maximum anticipated pile size (acres) provided by the source.
PM2.5 = PM10

Abbreviations
RAP - recycled asphalt pavement
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit

Appendix A.1: Unlimited Emissions Calculations
Material Processing, Handling, Crushing, Screening, and Conveying

Company Name: **Milestone Contractors, L.P.**
Source Address: **1972 West State Road, Ridgeville, IN 47380**
Permit Number: **135-34588-03158**
Reviewer: **Nida Habeeb**

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)*[(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 11.1.1.1)
Ef (PM) =	2.27E-03	lb PM/ton of material handled
Ef (PM10) =	1.07E-03	lb PM10/ton of material handled
Ef (PM2.5) =	1.62E-04	lb PM2.5/ton of material handled

Maximum Annual Asphalt Production =	1,752,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	1,664,400	tons/yr

Type of Activity	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10 (tons/yr)	Unlimited/Uncontrolled PTE of PM2.5 (tons/yr)
Truck unloading of materials into storage piles	1.89	0.89	0.14
Front-end loader dumping of materials into feeder bins	1.89	0.89	0.14
Conveyor dropping material into dryer/mixer or batch tower	1.89	0.89	0.14
Total (tons/yr)	**5.66**	**2.68**	**0.41**

Methodology
The percent asphalt cement/binder provided by the source.
Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
Unlimited Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
Raw materials may include limestone, sand, recycled asphalt pavement (RAP), gravel, slag, and other additivies
*Worst case annual mean wind speed (Indianapolis, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006

Material Screening and Conveying (AP-42 Section 11.19.2)
To estimate potential fugitive dust emissions from raw material crushing, screening, and conveying, AP-42 emission factors for Crushed Stone Processing Operations, Section 11.19.2 (dated 8/04) are utilized.

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10/PM2.5 (tons/yr)**
Crushing	0.0054	0.0024	4.49	2.00
Screening	0.025	0.0087	20.81	7.24
Conveying	0.003	0.0011	2.50	0.92
Unlimited Potential to Emit (tons/yr) =			**27.80**	**10.15**

Methodology
Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
Unlimited Potential to Emit (tons/yr) = [Maximum Material Handling Throughput (tons/yr)] * [Emission Factor (lb/ton)] * [ton/2000 lbs]
Raw materials may include stone/gravel, slag, and recycled asphalt pavement (RAP)
Emission Factors from AP-42 Chapter 11.19.2 (dated 8/04), Table 11.19.2-2
*Uncontrolled emissions factors for PM/PM10 represent tertiary crushing of stone with moisture content ranging from 0.21 to 1.3 percent by weight (Table 11.19.2-2). The bulk moisture content of aggregate in the storage piles at a hot mix asphalt production plant typically stabilizes between 3 to 5 percent by weight (Source: AP-42 Section 11.1.1.1).
**Assumes PM10 = PM2.5
Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate matter (< 2.5 um)
PTE = Potential to Emit

*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

Appendix A.1: Unlimited Emissions Calculations
Unpaved Roads

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Unpaved Roads at Industrial Site
The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Maximum Annual Asphalt Production =	1,752,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	1,664,400	tons/yr
Maximum Asphalt Cement/Binder Throughput =	87,600	tons/yr
Maximum No. 2 Fuel Oil Usage =	5,318,571	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	13.5	20.0	33.5	8.3E+04	2.8E+06	275	0.052	4334.4
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	13.5	0	13.5	8.3E+04	1.1E+06	275	0.052	4334.4
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	2.4E+03	1.2E+05	300	0.057	138.3
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	2.4E+03	2.9E+04	300	0.057	138.3
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.0	5.6E+02	2.5E+04	300	0.057	31.9
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	5.6E+02	6.7E+03	300	0.057	31.9
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.2	4.0E+05	7.6E+06	360	0.068	27019.5
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	4.0E+05	5.9E+06	360	0.068	27019.5
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	13.5	20.0	33.5	8.8E+04	2.9E+06	300	0.057	4977.3
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	13.5	0	13.5	8.8E+04	1.2E+06	300	0.057	4977.3
	Total				**1.1E+06**	**2.2E+07**			**7.3E+04**

Average Vehicle Weight Per Trip =	19.1	tons/trip
Average Miles Per Trip =	0.064	miles/trip

Unmitigated Emission Factor, Ef = k*[(s/12)^a]*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant Road)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2)
W =	19.1	19.1	19.1	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [(365 - P)/365]
Mitigated Emission Factor, Eext = E * [(365 - P)/365]
where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	5.93	1.51	0.15	lb/mile
Mitigated Emission Factor, Eext =	3.90	0.99	0.10	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	12.86	3.28	0.33	8.45	2.15	0.22	4.23	1.08	0.11
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	12.86	3.28	0.33	8.45	2.15	0.22	4.23	1.08	0.11
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.410	0.105	0.01	0.270	0.069	0.01	0.135	0.034	0.00
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.410	0.105	0.01	0.270	0.069	0.01	0.135	0.034	0.00
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.095	0.024	0.00	0.062	0.016	0.00	0.031	0.008	0.00
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.095	0.024	0.00	0.062	0.016	0.00	0.031	0.008	0.00
Aggregate/RAP Loader Full	Front-end loader (3 CY)	80.14	20.43	2.04	52.70	13.43	1.34	26.35	6.72	0.67
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	80.14	20.43	2.04	52.70	13.43	1.34	26.35	6.72	0.67
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	14.76	3.76	0.38	9.71	2.47	0.25	4.85	1.24	0.12
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	14.76	3.76	0.38	9.71	2.47	0.25	4.85	1.24	0.12
	Totals	**216.54**	**55.19**	**5.52**	**142.38**	**36.29**	**3.63**	**71.19**	**18.14**	**1.81**

Maximum Material Handling Throughput = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
Maximum Asphalt Cement/Binder Throughput = [Annual Asphalt Production Limitation (tons/yr)] * [Percent Asphalt Cement/Binder (weight %)]
Maximum Weight of Vehicle and Load (tons/trip) = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]
Maximum trips per year (trip/yr) = [Throughput (tons/yr)] / [Maximum Weight of Load (tons/trip)]
Total Weight driven per year (ton/yr) = [Maximum Weight of Vehicle and Load (tons/trip)] * [Maximum trips per year (trip/yr)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/yr) = [Maximum trips per year (trip/yr)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

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

Appendix A.1: Unlimited Emissions Calculations
Paved Roads

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (12/2003).

Maximum Annual Asphalt Production =	1,752,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	1,664,400	tons/yr
Maximum Asphalt Cement/Binder Throughput =	87,600	tons/yr
Maximum No. 2 Fuel Oil Usage =	5,318,571	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per day (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	13.5	20.0	33.50	8.3E+04	2.8E+06	300	0.057	4728.4
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	13.5	0	13.50	8.3E+04	1.1E+06	300	0.057	4728.4
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.00	2.4E+03	1.2E+05	300	0.057	138.3
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	2.4E+03	2.9E+04	300	0.057	138.3
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.00	5.6E+02	2.5E+04	300	0.057	31.9
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	5.6E+02	6.7E+03	300	0.057	31.9
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.20	4.0E+05	7.6E+06	300	0.057	22516.2
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.00	4.0E+05	5.9E+06	300	0.057	22516.2
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	13.5	20.0	33.50	8.8E+04	2.9E+06	600	0.114	9954.5
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	13.5	0	13.50	8.8E+04	1.2E+06	600	0.114	9954.5
	Total				**1.1E+06**	**2.2E+07**			**7.5E+04**

Average Vehicle Weight Per Trip =	19.1	tons/trip
Average Miles Per Trip =	0.066	miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
W =	19.1	19.1	19.1	tons = average vehicle weight (provided by source)
sL =	0.6	0.6	0.6	g/m^2 = Ubitiguous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)]
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]

where p =	125	days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N =	365	days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.14	0.03	0.01	lb/mile
Mitigated Emission Factor, Eext =	0.13	0.03	0.01	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	0.33	0.07	0.02	0.30	0.06	0.01	0.15	0.03	0.01
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	0.33	0.07	0.02	0.30	0.06	0.01	0.15	0.03	0.01
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.010	0.002	4.7E-04	0.009	0.002	4.3E-04	0.004	8.8E-04	2.2E-04
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.010	0.002	4.7E-04	0.009	0.002	4.3E-04	0.004	8.8E-04	2.2E-04
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	2.2E-03	4.5E-04	1.1E-04	2.0E-03	4.1E-04	1.0E-04	1.0E-03	2.0E-04	5.0E-05
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	2.2E-03	4.5E-04	1.1E-04	2.0E-03	4.1E-04	1.0E-04	1.0E-03	2.0E-04	5.0E-05
Aggregate/RAP Loader Full	Front-end loader (3 CY)	1.57	0.31	0.08	1.44	0.29	0.07	0.72	0.14	0.04
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	1.57	0.31	0.08	1.44	0.29	0.07	0.72	0.14	0.04
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	0.70	0.14	0.03	0.64	0.13	0.03	0.32	0.06	0.02
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	0.70	0.14	0.03	0.64	0.13	0.03	0.32	0.06	0.02
	Totals	**5.23**	**1.05**	**0.26**	**4.78**	**0.96**	**0.23**	**2.39**	**0.48**	**0.12**

*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 En
Maximum Material Handling Throughput = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
Maximum Asphalt Cement/Binder Throughput = [Annual Asphalt Production Limitation (tons/yr)] * [Percent Asphalt Cement/Binder (weight %)]
Maximum Weight of Vehicle and Load (tons/trip) = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]
Maximum trips per year (trip/yr) = [Throughput (tons/yr)] / [Maximum Weight of Load (tons/trip)]
Total Weight driven per year (ton/yr) = [Maximum Weight of Vehicle and Load (tons/trip)] * [Maximum trips per year (trip/yr)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/yr) = [Maximum trips per year (trip/yr)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

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

Appendix A.1: Unlimited Emissions Calculations
Cold Mix Asphalt Production and Stockpiles

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

The following calculations determine the amount of VOC and HAP emissions created from volatilization of solvent used as diluent in the liquid binder for cold mix asphalt production

Maximum Annual Asphalt Production =	1,752,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Asphalt Cement/Binder Throughput =	87,600	tons/yr

Volatile Organic Compounds

	Maximum weight % of VOC solvent in binder*	Weight % VOC solvent in binder that evaporates	Maximum VOC Solvent Usage (tons/yr)	PTE of VOC (tons/yr)
Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)	25.3%	95.0%	22,162.8	21,054.7
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	25,053.6	17,537.5
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	17,520.0	4,380.0
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	13,140.0	6,097.0
Other asphalt with solvent binder	25.9%	2.5%	22,688.4	567.2
			Worst Case PTE of VOC =	**21,054.7**

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) =	**5,491.83**	
PTE of Single HAP (tons/yr) =	**1,894.92**	**Xylenes**

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

		Hazardous Air Pollutant (HAP) Content (% by weight)* For Various Petroleum Solvents				
Volatile Organic HAP	CAS#	Gasoline	Kerosene	Diesel (#2) Fuel Oil	No. 2 Fuel Oil	No. 6 Fuel Oil
1,3-Butadiene	106-99-0	3.70E-5%				
2,2,4-Trimethylpentane	540-84-1	2.40%				
Acenaphthene	83-32-9		4.70E-5%		1.80E-4%	
Acenaphthylene	208-96-8		4.50E-5%		6.00E-5%	
Anthracene	120-12-7		1.20E-6%	5.80E-5%	2.80E-5%	5.00E-5%
Benzene	71-43-2	1.90%		2.90E-4%		
Benzo(a)anthracene	56-55-3			9.60E-7%	4.50E-7%	5.50E-4%
Benzo(a)pyrene	50-32-8			2.20E-6%	2.10E-7%	4.40E-5%
Benzo(g,h,i)perylene	191-24-2			1.20E-7%	5.70E-8%	
Biphenyl	92-52-4			6.30E-4%	7.20E-5%	
Chrysene	218-01-9			4.50E-7%	1.40E-6%	6.90E-4%
Ethylbenzene	100-41-4	1.70%		0.07%	3.40E-4%	
Fluoranthene	206-44-0		7.10E-6%	5.90E-5%	1.40E-5%	2.40E-4%
Fluorene	86-73-7		4.20E-5%	8.60E-4%	1.90E-4%	
Indeno(1,2,3-cd)pyrene	193-39-5			1.60E-7%		1.00E-4%
Methyl-tert-butylether	1634-04-4	0.33%				
Naphthalene	91-20-3	0.25%	0.31%	0.26%	0.22%	4.20E-5%
n-Hexane	110-54-3	2.40%				
Phenanthrene	85-01-8		8.60E-6%	8.80E-4%	7.90E-4%	2.10E-4%
Pyrene	129-00-0		2.40E-6%	4.60E-5%	2.90E-5%	2.30E-5%
Toluene	108-88-3	8.10%		0.18%	6.20E-4%	
Total Xylenes	1330-20-7	9.00%		0.50%	0.23%	
Total Organic HAPs		**26.08%**	**0.33%**	**1.29%**	**0.68%**	**0.19%**
Worst Single HAP		**9.00% Xylenes**	**0.31% Naphthalene**	**0.50% Xylenes**	**0.23% Xylenes**	**0.07% Chrysene**

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]
*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

PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]
PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science.

Abbreviations
VOC = Volatile Organic Compounds
PTE = Potential to Emit

Appendix A.1: Unlimited Emissions Calculations
Gasoline Fuel Transfer and Dispensing Operation

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

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

Volatile Organic Compounds

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

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)]

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science.

Abbreviations
VOC = Volatile Organic Compounds
PTE = Potential to Emit

Appendix A.2: Limited Emissions Summary
Entire Source - Batch Mix

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Asphalt Plant Limitations - Batch Mix

Maximum Hourly Asphalt Production =	200	ton/hr					
Annual Asphalt Production Limitation =	492,792	ton/yr					
Blast Furnace Slag Usage Limitation =	30,000	ton/yr	1.50	% sulfur			
Steel Slag Usage Limitation =	30,000	ton/yr	0.66	% sulfur			
Maximum Dryer Fuel Input Rate =	85	MMBtu/hr					
Natural Gas Limitation =	745	MMCF/yr					
No. 2 Fuel Oil Limitation =	2,400,971	gal/yr, and	0.50	% sulfur			
No. 4 Fuel Oil Limitation =	0	gal/yr, and	0.00	% sulfur			
Residual (No. 5 or No. 6) Fuel Oil Limitation =	0	gal/yr, and	0.00	% sulfur			
Propane Limitation =	0	gal/yr, and	0.00	gr/100 ft3 sulfur			
Butane Limitation =	0	gal/yr, and	0.00	gr/100 ft3 sulfur			
Used/Waste Oil Limitation =	1,500,200	gal/yr, and	0.75	% sulfur	1.02 % ash	0.200 % chlorine,	0.010 % lead
Diesel Fuel Limitation - Generator < 600 HP =	0	gal/yr,and					
Diesel Fuel Limitation - Generator > 600 HP =	0	gal/yr	0.00	% sulfur			

PM Dryer/Mixer Limitation =	0.882	lb/ton of asphalt production
PM10 Dryer/Mixer Limitation =	0.362	lb/ton of asphalt production
PM2.5 Dryer/Mixer Limitation =	0.383	lb/ton of asphalt production
NOx Dryer/Mixer Limitation =	0.152	lb/ton of asphalt production
CO Dryer/Mixer Limitation =	0.4	lb/ton of asphalt production
VOC Dryer/Mixer Limitation =	0.036	lb/ton of asphalt production
Blast Furnace Slag SO2 Dryer/Mixer Limitation =	0.7400	lb/ton of slag processed
Steel Slag SO2 Dryer/Mixer Limitation =	0.0014	lb/ton of slag processed
Cold Mix Asphalt VOC Limitation =	52.0	tons/yr
HCl Limitation =	13.2	lb/kgal

Limited/Controlled Emissions

	Limited/Controlled Potential Emissions (tons/year)										
	Criteria Pollutants							Greenhouse Gas Pollutants	Hazardous Air Pollutants		
Process Description	**PM**	**PM10**	**PM2.5**	**SO2**	**NOx**	**VOC**	**CO**	**CO_2e**	**Total HAPs**	**Worst Case HAP**	
Ducted Emissions											
Dryer Fuel Combustion (worst case)	48.97	39.02	39.02	85.23	37.23	2.05	31.27	45,004	11.26	9.90	HCl
Dryer/Mixer and Batch Tower (Process)	217.20	89.19	94.42	21.68	37.45	8.87	98.56	9,162	1.91	0.67	Xylene
Dryer/Mixer Slag Processing	0	0	0	11.10	0	0	0	0	0	0	n/a
Hot Oil Heater Fuel Combustion/Process (worst case)	0.04	0.07	0.07	1.55	0.44	0.02	0.26	613	0.01	negl	negl
Hot Asphalt Storage & Conveyor System Heater Fuel Combustion (worst case)	0.03	0.05	0.05	1.11	0.31	0.01	0.18	354	0.005	negl	negl
Diesel-Fired Generator < 600 HP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/a
Diesel-Fired Generator > 600 HP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/a
Worst Case Emissions*	**217.27**	**89.31**	**94.54**	**99.00**	**38.20**	**8.90**	**99.00**	**45,970**	**11.28**	**9.90**	HCl
Fugitive Emissions											
Asphalt Load-Out, Silo Filling, On-Site Yard	0.27	0.27	0.27	0	0	4.22	0.71	0	0.07	0.02	HCOH
Material Storage Piles	2.00	0.70	0.70	0	0	0	0	0	0	0	n/a
Material Processing and Handling	1.59	0.75	0.11	0	0	0	0	0	0	0	n/a
Material Crushing, Screening, and Conveying	7.82	2.86	2.86	0	0	0	0	0	0	0	n/a
Unpaved and Paved Roads (worst case)	20.04	5.11	0.51	0	0	0	0	0	0	0	n/a
Cold Mix Asphalt Production	0	0	0	0	0	51.96	0	0	13.55	4.68	Xylenes
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0.00	0	0	0.00	0.00	n/a
Volatile Organic Liquid Storage Vessels	0	0	0	0	0	negl	0	0	negl	negl	negl
Total Fugitive Emissions	**31.73**	**9.69**	**4.46**	**0**	**0**	**56.18**	**0.71**	**0.00**	**13.62**	**4.68**	Xylenes
Totals Limited/Controlled Emissions	**249.00**	**99.00**	**99.00**	**99.00**	**38.20**	**65.08**	**99.71**	**45,970**	**24.90**	**9.90**	**HCL**

negl = negligible

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

*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.

(1) Limited PTE based upon annual production and fuel usage limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP)
(2) Limited PTE based upon annual production limit and lb/ton emission limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).
(3) Limited PTE based upon annual production limit to comply with 326 IAC 2-2 (PSD) & 326 IAC 2-8 (FESOP).
(4) Limited PTE based upon maximum annual VOC usage limit to comply with 326 IAC 2-8 (FESOP).

Appendix A.2: Limited Emissions Summary
Dryer/Mixer Fuel Combustion with Maximum Capacity < 100 MMBtu/hr

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

The following calculations determine the limited emissions created from the combustion of natural gas, fuel oil, propane, butane, or used/waste oil in the dryer/mixer and all other fuel combustion sources at the source.

Fuel Limitations

Maximum Fuel Input Rate =	85	MMBtu/hr							
Natural Gas Limitation =	745	MMCF/yr							
No. 2 Fuel Oil Limitation =	2,400,971	gal/yr, and	0.50	% sulfur					
No. 4 Fuel Oil Limitation =	0	gal/yr, and	0.00	% sulfur					
Residual (No. 5 or No. 6) Fuel Oil Limitation =	0	gal/yr, and	0.00	% sulfur					
Propane Limitation =	0	gal/yr, and	0.00	gr/100 ft3 sulfur					
Butane Limitation =	0	gal/yr, and	0.00	gr/100 ft3 sulfur					
Used/Waste Oil Limitation =	1,500,200	gal/yr, and	0.75	% sulfur	1.02	% ash	0.200	% chlorine,	0.010 % lead

Limited Emissions

	Emission Factor (units)							Limited Potential to Emit (tons/yr)							
Criteria Pollutant	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil* (lb/kgal)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/ Waste Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/ Waste Oil (tons/yr)	**Worst Case Fuel (tons/yr)**
PM	1.9	2.0	7.0	3.22	0.5	0.6	65.3	0.71	2.40	0.00	0.00	0.000	0.000	48.97	**48.97**
PM10/PM2.5	7.6	3.3	8.3	4.72	0.5	0.6	52.02	2.83	3.96	0.00	0.00	0.000	0.000	39.02	**39.02**
SO2	0.6	71.0	0.0	0.0	0.00	0.00	110.3	0.22	85.23	0.00	0.00	0.000	0.000	82.70	**85.23**
NOx	100	20.0	20.0	55.0	13.0	15.0	19.0	37.23	24.01	0.00	0.00	0.00	0.00	14.25	**37.23**
VOC	5.5	0.20	0.20	0.28	1.0	1.10	1.0	2.05	0.24	0.00	0.00	0.00	0.00	0.75	**2.05**
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	31.27	6.00	0.00	0.00	0.00	0.00	3.75	**31.27**
Hazardous Air Pollutant															
HCl							13.2							9.90	**9.90**
Antimony			5.25E-03	5.25E-03			negl			0.00E+00	0.00E+00			negl	**0.0E+00**
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03			1.1E-01	7.4E-05	6.72E-04	0.00E+00	0.00E+00			8.25E-02	**8.3E-02**
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05			negl	4.5E-06	5.04E-04	0.00E+00	0.00E+00			negl	**5.0E-04**
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04			9.3E-03	4.1E-04	5.04E-04	0.00E+00	0.00E+00			6.98E-03	**7.0E-03**
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04			2.0E-02	5.2E-04	5.04E-04	0.00E+00	0.00E+00			1.50E-02	**1.5E-02**
Cobalt	8.4E-05		6.02E-03	6.02E-03			2.1E-04	3.1E-05		0.00E+00	0.00E+00			1.58E-04	**1.6E-04**
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03			0.55	1.9E-04	1.51E-03	0.00E+00	0.00E+00			4.1E-01	**0.41**
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03			6.8E-02	1.4E-04	1.01E-03	0.00E+00	0.00E+00			5.10E-02	**0.05**
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04				9.7E-05	5.04E-04	0.00E+00	0.00E+00				**5.0E-04**
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02			1.1E-02	7.8E-04	5.04E-04	0.00E+00	0.00E+00			8.25E-03	**0.008**
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04			negl	8.9E-06	2.52E-03	0.00E+00	0.00E+00			negl	**2.5E-03**
1.1.1-Trichloroethane			2.36E-04	2.36E-04						0.00E+00	0.00E+00				**0.0E+00**
1,3-Butadiene															**0.0E+00**
Acetaldehyde															**0.0E+00**
Acrolein															**0.0E+00**
Benzene	2.1E-03		2.14E-04	2.14E-04				7.8E-04		0.00E+00	0.00E+00				**7.8E-04**
Bis(2-ethylhexyl)phthalate							2.2E-03							1.65E-03	**1.7E-03**
Dichlorobenzene	1.2E-03						8.0E-07	4.5E-04						6.00E-07	**4.5E-04**
Ethylbenzene			6.36E-05	6.36E-05						0.00E+00	0.00E+00				**0.0E+00**
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				2.8E-02	7.32E-02	0.00E+00	0.00E+00				**0.073**
Hexane	1.8E+00							0.67							**0.670**
Phenol							2.4E-03							1.80E-03	**1.8E-03**
Toluene	3.4E-03		6.20E-03	6.20E-03				1.3E-03		0.00E+00	0.00E+00				**1.3E-03**
Total PAH Haps	negl		1.13E-03	1.13E-03			3.9E-02	negl		0.00E+00	0.00E+00			2.93E-02	**2.9E-02**
Polycyclic Organic Matter		3.30E-03							3.96E-03						**4.0E-03**
Xylene			1.09E-04	1.09E-04						0.00E+00	0.00E+00				**0.0E+00**
							Total HAPs	**0.70**	**0.09**	**0.00**	**0.00**	**0**	**0**	**10.51**	**11.26**
														Worst Case HAI	**9.90 HCl**

Methodology

Natural Gas: Limited Potential to Emit (tons/yr) = (Natural Gas Limitation (MMCF/yr)) * (Emission Factor (lb/MMCF)) * (ton/2000 lbs)
All Other Fuels: Limited Potential to Emit (tons/yr) = (Fuel Limitation (gals/yr)) * (Emission Factor (lb/kgal)) * (kgal/1000 gal) * (ton/2000 lbs)
Sources of AP-42 Emission Factors for fuel combustion:
Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4
No. 2, No.4, and No.6 Fuel Oil: AP-42 Chapter 1.3 (dated 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11
Propane and Butane: AP-42 Chapter 1.5 (dated 7/08), Tables 1.5-1 (assuming PM = PM10)
Waste Oil: AP-42 Chapter 1.11 (dated 10/96), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5
*Since there are no specific AP-42 HAP emission factors for combustion of No. 4 fuel oil, it was assumed that HAP emissions from combustion of No. 4 fuel oil were equal to combustion of residual or No. 6 fuel oil.

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

Appendix A.2: Limited Emissions Summary
Greenhouse Gas (CO2e) Emissions from the
Dryer/Mixer Fuel Combustion with Maximum Capacity < 100 MMBtu/hr

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

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 at the source.

Fuel Limitations

Maximum Fuel Input Rate =	85	MMBtu/hr							
Natural Gas Limitation =	745	MMCF/yr							
No. 2 Fuel Oil Limitation =	2,400,971	gal/yr, and	0.50	% sulfur					
No. 4 Fuel Oil Limitation =	0	gal/yr, and	0.00	% sulfur					
Residual (No. 5 or No. 6) Fuel Oil Limitation =	0	gal/yr, and	0.00	% sulfur					
Propane Limitation =	0	gal/yr, and	0.00	gr/100 ft3 sulfur					
Butane Limitation =	0	gal/yr, and	0.00	gr/100 ft3 sulfur					
Used/Waste Oil Limitation =	1,500,200	gal/yr, and	0.75	% sulfur	1.02	% ash	0.200	% chlorine,	0.010 % lead

Limited Emissions

	Emission Factor (units)						
CO2e Fraction	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil (lb/kgal)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)
CO2	120,161.84	22,501.41	24,153.46	24,835.04	12,500.00	14,506.73	22,024.15
CH4	2.49	0.91	0.97	1.00	0.60	0.67	0.89
N2O	2.20	0.26	0.19	0.53	0.90	0.90	0.18

Global Warming Potentials (GWP)		
Name	Chemical Formula	Global warming potential
Carbon dioxide	CO_2	1
Methane	CH_4	25
Nitrous oxide	N_2O	298

	Limited Potential to Emit (tons/yr)						
CO2e Fraction	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/Waste Oil (tons/yr)
CO2	44,736.25	27,012.61	0.00	0.00	0.00	0.00	16,520.32
CH4	0.93	1.10	0.00	0.00	0.00	0.00	0.67
N2O	0.82	0.31	0.00	0.00	0.00	0.00	0.14
Total	44,738.00	27,014.02	0.00	0.00	0.00	0.00	16,521.12
CO2e Equivalent Emissions (tons/yr)	45,003.54	27,133.02	0.00	0.00	0.00	0.00	16,577.30

CO2e for Worst Case Fuel* (tons/yr)
45,003.54

Methodology
Fuel Limitations from TSD Appendix A.2, page 1 of 15.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Sources of Emission Factors for fuel combustion: (Note: To form a conservative estimate, the "worst case" emission factors have been used.)

Natural Gas: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/MMCF. Emission Factor for N2O from AP-42 Chapter 1.4 (dated 7/98), Table 1.4-2

No. 2, No. 4, and Residual (No. 5 or No. 6) Fuel Oil: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal. Emission Factor for N2O from AP-42 Chapter 1.3 (dated 5/10), Table 1.3-8

Propane and Butane: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal. Emission Factor for N2O from AP-42 Chapter 1.5 (dated 7/08), Table 1.5-1

Waste Oil: Emission Factors for CO2, CH4, and N2O from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal.

Emission Factor (EF) Conversions

Natural Gas: EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of Natural Gas (MMBtu/scf) * Conversion Factor (1,000,000 scf/MMCF)]

Fuel Oils: EF (lb/kgal) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of the Fuel Oil (MMBtu/gal) * Conversion Factor (1000 gal/kgal)]

Natural Gas: Limited Potential to Emit (tons/yr) = (Natural Gas Limitation (MMCF/yr)) * (Emission Factor (lb/MMCF)) * (ton/2000 lbs)
All Other Fuels: Limited Potential to Emit (tons/yr) = (Fuel Limitation (gals/yr)) * (Emission Factor (lb/kgal)) * (kgal/1000 gal) * (ton/2000 lbs)
Limited CO2e Emissions (tons/yr) = CO2 Potential Emission of "worst case" fuel (ton/yr) x CO2 GWP (1) + CH4 Potential Emission of "worst case" fuel (ton/yr) x CH4 GWP (25) + N2O Potential Emission of "worst case" fuel (ton/yr) x N2O GWP (298).

Abbreviations
CH4 = Methane CO2 = Carbon Dioxide N2O = Nitrogen Dioxide PTE = Potential to Emit

Appendix A.2: Limited Emissions Summary
Dryer/Mixer and Batch Tower - Process Emissions

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

The following calculations determine the limited emissions from the aggregate drying/mixing and the batch tower.

Maximum Hourly Asphalt Production =	200	ton/hr
Annual Asphalt Production Limitation =	492,792	ton/yr
PM Dryer/Mixer Limitation =	0.882	lb/ton of asphalt production
PM10 Dryer/Mixer Limitation =	0.362	lb/ton of asphalt production
PM2.5 Dryer/Mixer Limitation =	0.383	lb/ton of asphalt production
NOx Dryer/Mixer Limitation =	0.152	lb/ton of asphalt production
CO Dryer/Mixer Limitation =	0.400	lb/ton of asphalt production
VOC Dryer/Mixer Limitation =	0.036	lb/ton of asphalt production

	Emission Factor or Limitation (lb/ton) Batch-Mix Plant (dryer, hot screens, and mixer)			Limited/Controlled Potential to Emit (tons/yr) Batch-Mix Plant (dryer, hot screens, and mixer)			
Criteria Pollutant	Natural Gas	No. 2 Fuel Oil	Waste Oil	Natural Gas	No. 2 Fuel Oil	Waste Oil	**Worst Case PTE**
PM	0.882	0.882	0.882	217.2	217.2	217.2	**217.2**
PM10	0.362	0.362	0.362	89.2	89.2	89.2	**89.2**
PM2.5	0.383	0.383	0.383	94.4	94.4	94.4	**94.4**
SO2*	0.0046	0.088	0.088	1.1	21.7	21.7	**21.7**
NOx*	0.025	0.15	0.15	6.2	37.5	37.5	**37.5**
VOC	0.036	0.036	0.036	8.9	8.9	8.9	**8.9**
CO**	0.400	0.400	0.400	98.6	98.6	98.6	**98.6**
Hazardous Air Pollutant							
Arsenic	4.60E-07	4.60E-07	4.60E-07	1.13E-04	1.13E-04	1.13E-04	**1.13E-04**
Beryllium	1.50E-07	1.50E-07	1.50E-07	3.70E-05	3.70E-05	3.70E-05	**3.70E-05**
Cadmium	6.10E-07	6.10E-07	6.10E-07	1.50E-04	1.50E-04	1.50E-04	**1.50E-04**
Chromium	5.70E-07	5.70E-07	5.70E-07	1.40E-04	1.40E-04	1.40E-04	**1.40E-04**
Lead	8.90E-07	8.90E-07	1.00E-05	2.19E-04	2.19E-04	2.46E-03	**2.46E-03**
Manganese	6.90E-06	6.90E-06	6.90E-06	1.70E-03	1.70E-03	1.70E-03	**1.70E-03**
Mercury	4.10E-07	4.10E-07	4.10E-07	1.01E-04	1.01E-04	1.01E-04	**1.01E-04**
Nickel	3.00E-06	3.00E-06	3.00E-06	7.39E-04	7.39E-04	7.39E-04	**7.39E-04**
Selenium	4.90E-07	4.90E-07	4.90E-07	1.21E-04	1.21E-04	1.21E-04	**1.21E-04**
Acetaldehyde	3.20E-04	3.20E-04	3.20E-04	0.08	0.08	0.08	**0.08**
Benzene	2.80E-04	2.80E-04	2.80E-04	0.07	0.07	0.07	**0.07**
Ethylbenzene	2.20E-03	2.20E-03	2.20E-03	0.54	0.54	0.54	**0.54**
Formaldehyde	7.40E-04	7.40E-04	7.40E-04	0.18	0.18	0.18	**0.18**
Quinone	2.70E-04	2.70E-04	2.70E-04	0.07	0.07	0.07	**0.07**
Toluene	1.00E-03	1.00E-03	1.00E-03	0.25	0.25	0.25	**0.25**
Total PAH Haps	1.10E-04	1.10E-04	2.30E-04	0.03	0.03	0.06	**0.06**
Xylene	2.70E-03	2.70E-03	2.70E-03	0.67	0.67	0.67	**0.67**
						Total HAPs	**1.91**
Methodology						**Worst Single HAP**	**0.67** **Xylene**

Limited/Controlled Potential to Emit (tons/yr) = (Annual Asphalt Production Limitation (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-1, 11.1-2, 11.1-5, 11.1-6, 11.1-19, and 11.1-11
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.
* SO2 and NOx 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 batch 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
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (< 2.5 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC - Volatile Organic Compounds
CO = Carbon Monoxide
HAP = Hazardous Air Pollutant
HCl = Hydrogen Chloride
PAH = Polyaromatic Hydrocarbon

Appendix A.2: Limited Emissions Summary
Greenhouse Gas (CO2e) Emissions from the
Batch-Mix Plant (Dryer/Mixer) Process Emissions

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

The following calculations determine the limited emissions from the aggregate drying/mixing

Maximum Hourly Asphalt Production =	200	ton/hr
Annual Asphalt Production Limitation =	492,792	ton/yr

	Emission Factor (lb/ton) Batch-Mix Plant (dryer/mixer)				Limited Potential to Emit (tons/yr) Batch-Mix Plant (dryer/mixer)			
Criteria Pollutant	Natural Gas	No. 2 Fuel Oil	Waste Oil	Global Warming Potentials (GWP)	Natural Gas	No. 2 Fuel Oil	Waste Oil	**CO2e for Worst Case Fuel (tons/yr)**
CO2	37	37	37	1	9,116.66	9,116.66	9,116.66	
CH4	0.0074	0.0074	0.0074	25	1.82	1.82	1.82	
N2O				298	0	0	0	
				Total	9,118.48	9,118.48	9,118.48	**9,162.24**
CO2e Equivalent Emissions (tons/yr)					9,162.24	9,162.24	9,162.24	

Methodology
Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-7 and 11.1-8
There are no emission factors for N20 available in either the 40 CFR 98, Subpart C or AP-42 Chapter 11.1. Therefore, it is assumed that there are no N2O emission anticipated from this process.

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.
Limited CO2e Emissions (tons/yr) = CO2 Potential Emission of "worst case" fuel (ton/yr) x CO2 GWP (1) + CH4 Potential Emission of "worst case" fuel (ton/yr) x CH4 GWP (25) + N2O Potential Emission of "worst case" fuel (ton/yr) x N2O GWP (298).

Abbreviations
CO2 = Carbon Dioxide CH4 = Methane N2O = Nitrogen Dioxide PTE = Potential to Emit

Appendix A.2: Limited Emissions Summary
Dryer/Mixer Slag Processing

Company Name: **Milestone Contractors, L.P.**
Source Address: **1972 West State Road, Ridgeville, IN 47380**
Permit Number: **135-34588-03158**
Reviewer: **Nida Habeeb**

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

Limited Blast Furnace Slag Usage =	30,000	ton/yr	1.50	% sulfur
Limited Annual Steel Slag Usage =	30,000	ton/yr	0.66	% sulfur

Type of Slag	SO2 Emission Factor (lb/ton)	Limited Potential to Emit SO2 (tons/yr)
Blast Furnace Slag*	0.7400	11.1
Steel Slag**	0.0014	0.02

Methodology

* Testing results for blast furnace slag, obtained January 9, 2009 from similar operations at Rieth-Riley Construction Co., Inc. facility located in Valparaiso, IN (permit #127-27075-05241), produced an Emission Factor of 0.54 lb/ton from blast furnace slag containing 1.10% sulfur content. The source has requested a safety factor of 0.20 lb/ton be added to the tested value for use at this location to allow for a sulfur content up to 1.5%.

** Testing results for steel slag, obtained June 2009 from E & B Paving, Inc. facility located in Huntington, IN. The testing results showed a steel slag emission factor of 0.0007 lb/ton from slag containing 0.33% sulfur content.

Limited Potential to Emit SO2 from Slag (tons/yr) = [(Limited Slag Usage (ton/yr)] * [Emission Factor (lb/ton)] * [ton/2000 lbs]

Abbreviations

SO2 = Sulfur Dioxide

Appendix A.2: Limited Emissions Summary
Hot Oil Heater
Fuel Combustion with Maximum Capacity < 100 MMBtu/hr

Company Name: Milestone Contractors, L.P.
Source Location: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Maximum Hot Oil Heater Fuel Input Rate = 0.70 MMBtu/hr
Natural Gas Usage = 6 MMCF/yr
No. 2 Fuel Oil Usage = 43,800 gal/yr, and 0.50 % sulfur

Unlimited/Uncontrolled Emissions

Criteria Pollutant	Emission Factor (units) Hot Oil Heater: Natural Gas (lb/MMCF)	Emission Factor (units) Hot Oil Heater: No. 2 Fuel Oil (lb/kgal)	Unlimited/Uncontrolled Potential to Emit (tons/yr) Hot Oil Heater: Natural Gas (tons/yr)	Unlimited/Uncontrolled Potential to Emit (tons/yr) Hot Oil Heater: No. 2 Fuel Oil (tons/yr)	**Worse Case Fuel (tons/yr)**
PM	1.9	2.0	0.006	0.044	**0.04**
PM10/PM2.5	7.6	3.3	0.023	0.072	**0.07**
SO2	0.6	71.0	0.002	1.555	**1.55**
NOx	100	20.0	0.307	0.438	**0.44**
VOC	5.5	0.20	0.017	0.004	**0.02**
CO	84	5.0	0.258	0.110	**0.26**
Hazardous Air Pollutant					
Arsenic	2.0E-04	5.6E-04	6.1E-07	1.23E-05	**1.2E-05**
Beryllium	1.2E-05	4.2E-04	3.7E-08	9.20E-06	**9.2E-06**
Cadmium	1.1E-03	4.2E-04	3.4E-06	9.20E-06	**9.2E-06**
Chromium	1.4E-03	4.2E-04	4.3E-06	9.20E-06	**9.2E-06**
Cobalt	8.4E-05		2.6E-07		**2.6E-07**
Lead	5.0E-04	1.3E-03	1.5E-06	2.76E-05	**2.8E-05**
Manganese	3.8E-04	8.4E-04	1.2E-06	1.84E-05	**1.8E-05**
Mercury	2.6E-04	4.2E-04	8.0E-07	9.20E-06	**9.2E-06**
Nickel	2.1E-03	4.2E-04	6.4E-06	9.20E-06	**9.2E-06**
Selenium	2.4E-05	2.1E-03	7.4E-08	4.60E-05	**4.6E-05**
Benzene	2.1E-03		6.4E-06		**6.4E-06**
Dichlorobenzene	1.2E-03		3.7E-06		**3.7E-06**
Ethylbenzene					**0**
Formaldehyde	7.5E-02	6.10E-02	2.3E-04	1.34E-03	**0.001**
Hexane	1.8E+00		0.01		**0.006**
Phenol					**0**
Toluene	3.4E-03		1.0E-05		**1.0E-05**
Total PAH Haps	negl		negl		**0**
Polycyclic Organic Matter		3.30E-03		7.23E-05	**7.2E-05**
		Total HAPs =	**5.8E-03**	**1.6E-03**	**0.007**
		Worst Single HAP =	**5.5E-03 (Hexane)**	**1.3E-03 (Formaldehyde)**	**5.5E-03 (Hexane)**

Methodology
Equivalent Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
Equivalent Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.140 MMBtu]
Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [ton/2000 lbs]
All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] * [Emission Factor (lb/kgal)] * [kgal/1000 gal] * [ton/2000 lbs]
Sources of AP-42 Emission Factors for fuel combustion:
Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4
No. 2 Fuel Oil: AP-42 Chapter 1.3 (dated 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11

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

Appendix A.2: Limited Emissions Summary
Greenhouse Gas (CO2e) Emissions from
Hot Oil Heater Fuel Combustion with Maximum Capacity < 100 MMBtu/hr

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Maximum Hot Oil Heater Fuel Input Rate =	0.70	MMBtu/hr		
Natural Gas Usage =	6.13	MMCF/yr		
No. 2 Fuel Oil Usage =	43,800.00	gal/yr,	0.50	% sulfur

Unlimited/Uncontrolled Emissions

	Emission Factor (units)			Unlimited/Uncontrolled Potential to Emit (tons/yr)		
Criteria Pollutant	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Global Warming Potentials (GWP)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	**Worse Case CO2e Emissions (tons/yr)**
CO2	120,161.84	22,501.41	1	368.42	492.78	**494.98**
CH4	2.49	0.91	25	0.008	2.00E-02	
N2O	2.20	0.26	298	0.007	5.69E-03	
			Total	368.43	492.81	
			CO2e Equivalent Emissions (tons/yr)	370.62	494.98	

Methodology

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Sources of Emission Factors for fuel combustion: (Note: To form a conservative estimate, the "worst case" emission factors have been used.)

Natural Gas : Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/MMCF. Emission Factor for N2O from AP-42 Chapter 1.4 (dated 7/98), Table 1.4-2

No. 2 Fuel Oil: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted from kg/mmBtu to lb/kgal. Emission Factor for N2O from AP-42 Chapter 1.3 (dated 5/10), Table 1.3-8

Emission Factor (EF) Conversions

Natural Gas: EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of Natural Gas (MMBtu/scf) * Conversion Factor (1,000,000 scf/MMCF)]

Fuel Oils: EF (lb/kgal) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of the Fuel Oil (MMBtu/gal) * Conversion Factor (1000 gal/kgal)]

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]

Unlimited Potential to Emit CO2e (tons/yr) = Unlimited Potential to Emit CO2 of "worst case" fuel (ton/yr) x CO2 GWP (1) + Unlimited Potential to Emit CH4 of "worst case" fuel (ton/yr) x CH4 GWP (25) + Unlimited Potential to Emit N2O of "worst case" fuel (ton/yr) x N2O GWP (298).

Abbreviations

CH4 = Methane
CO2 = Carbon Dioxide
N2O = Nitrogen Dioxide
PTE = Potential to Emit

Appendix A.2: Limited Emissions Summary
Hot Oil Heating System - Process Emissions

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

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 =	0.70	MMBtu/hr
Natural Gas Usage =	6.13	MMCF/yr, and
No. 2 Fuel Oil Usage =	43,800.00	gal/yr

	Emission Factors		Unlimited/Uncontrolled Potential to Emit (tons/yr)		
Criteria Pollutant	Natural Gas (lb/ft3)	No. 2 Fuel Oil (lb/gal)	Natural Gas	No. 2 Fuel Oil	**Worse Case PTE**
VOC	2.60E-08	2.65E-05	7.97E-05	0.001	**0.001**
CO	8.90E-06	0.0012	0.027	0.026	**0.027**
Greenhouse Gas as CO2e*					
CO2	0.20	28.00	613.20	613.20	**613.20**
Hazardous Air Pollutant					
Formaldehyde	2.60E-08	3.50E-06	7.97E-05	7.67E-05	**7.97E-05**
Acenaphthene		5.30E-07		1.16E-05	**1.16E-05**
Acenaphthylene		2.00E-07		4.38E-06	**4.38E-06**
Anthracene		1.80E-07		3.94E-06	**3.94E-06**
Benzo(b)fluoranthene		1.00E-07		2.19E-06	**2.19E-06**
Fluoranthene		4.40E-08		9.64E-07	**9.64E-07**
Fluorene		3.20E-08		7.01E-07	**7.01E-07**
Naphthalene		1.70E-05		3.72E-04	**3.72E-04**
Phenanthrene		4.90E-06		1.07E-04	**1.07E-04**
Pyrene		3.20E-08		7.01E-07	**7.01E-07**
				Total HAPs	**5.84E-04**

Worst Single HAP 3.72E-04 (Naphthalene)

Methodology
Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
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)
Unlimited Potential to Emit CO2e (tons/yr) = Unlimited Potential to Emit CO2 (ton/yr) x CO2 GWP (1)
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

*Note: There are no emission factors for CH4 and N20 available in either 40 CFR 98, Subpart C or AP-42 Chapter 11.1. Therefore, it is assumed that there are no CH4 and N2O emission anticipated from this process.

Abbreviations
CO = Carbon Monoxide VOC = Volatile Organic Compound CO2 = Carbon Dioxide

Appendix A.2 Limited Emissions Calculations
Hot Asphalt Storage and Conveyor System Heater
Fuel Combustion with Maximum Capacity < 100 MMBtu/hr
Hot Asphalt Storage & Conveyor System Heater

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Note: Since the emissions from the hot oil heating system are minimal, the limited emissions are equal to the unlimited emissions.

Maximum Hot Oil Heater Fuel Input Rate = 0.50 MMBtu/hr
Natural Gas Usage = 4 MMCF/yr
No. 2 Fuel Oil Usage = 31,286 gal/yr, and 0.50 % sulfur

Unlimited/Uncontrolled Emissions

	Emission Factor (units)		Unlimited/Uncontrolled		
	Hot Oil Heater		Hot Oil Heater		
Criteria Pollutant	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	**Worse Case Fuel (tons/yr)**
PM	1.9	2.0	0.004	0.031	**0.03**
PM10/PM2.5	7.6	3.3	0.017	0.052	**0.05**
SO2	0.6	71.0	0.001	1.111	**1.11**
NOx	100	20.0	0.219	0.313	**0.31**
VOC	5.5	0.20	0.012	0.003	**0.01**
CO	84	5.0	0.184	0.078	**0.18**
Hazardous Air Pollutant					
Arsenic	2.0E-04	5.6E-04	4.4E-07	8.76E-06	**8.8E-06**
Beryllium	1.2E-05	4.2E-04	2.6E-08	6.57E-06	**6.6E-06**
Cadmium	1.1E-03	4.2E-04	2.4E-06	6.57E-06	**6.6E-06**
Chromium	1.4E-03	4.2E-04	3.1E-06	6.57E-06	**6.6E-06**
Cobalt	8.4E-05		1.8E-07		**1.8E-07**
Lead	5.0E-04	1.3E-03	1.1E-06	1.97E-05	**2.0E-05**
Manganese	3.8E-04	8.4E-04	8.3E-07	1.31E-05	**1.3E-05**
Mercury	2.6E-04	4.2E-04	5.7E-07	6.57E-06	**6.6E-06**
Nickel	2.1E-03	4.2E-04	4.6E-06	6.57E-06	**6.6E-06**
Selenium	2.4E-05	2.1E-03	5.3E-08	3.29E-05	**3.3E-05**
Benzene	2.1E-03		4.6E-06		**4.6E-06**
Dichlorobenzene	1.2E-03		2.6E-06		**2.6E-06**
Ethylbenzene					**0**
Formaldehyde	7.5E-02	6.10E-02	1.6E-04	9.54E-04	**9.5E-04**
Hexane	1.8E+00		0.00		**0.004**
Phenol					**0**
Toluene	3.4E-03		7.4E-06		**7.4E-06**
Total PAH Haps	negl		negl		**0**
Polycyclic Organic Matter		3.30E-03		5.16E-05	**5.2E-05**
		Total HAPs =	**4.1E-03**	**1.1E-03**	**0.005**
				Worst Case HAP	**0.004**
					Hexane

Methodology
Equivalent Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]
Equivalent Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] * [8,760 hrs/yr] * [1 gal/0.140 MMBtu]
Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] * [Emission
All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] * [Emission Factor
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 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
VOC - Volatile Organic Compounds
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
CO = Carbon Monoxide
HAP = Hazardous Air Pollutant
HCl = Hydrogen Chloride
PAH = Polyaromatic Hydrocarbon

Appendix A.2: Limited Emissions Summary
Greenhouse Gas (CO2e) Emissions from
Fuel Combustion with Maximum Capacity < 100 MMBtu/hr
Hot Asphalt Storage & Conveyor System Heater

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Maximum Hot Oil Heater Fuel Input Rate = 0.50 MMBtu/hr
Natural Gas Usage = 4 MMCF/yr
No. 2 Fuel Oil Usage = 31,286 gal/yr, 0.50 % sulfur

Unlimited/Uncontrolled Emissions

	Emission Factor (units)		Greenhouse Gas Global Warming Potentials	to Emit (tons/yr)	
Criteria Pollutant	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	(GWP)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)
CO2	120,161.84	22,501.41	1	263.15	351.99
CH4	2.49	0.91	21	0.005	1.43E-02
N2O	2.20	0.26	310	0.005	4.07E-03
			Total	263.16	352.00
			CO2e Equivalent Emissions (tons/yr)	264.76	353.55

Worse Case CO2e Emissions (tons/yr)
353.55

No. 2 fuel oil

Methodology
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Sources of Emission Factors for fuel combustion: (Note: To form a conservative estimate, the "worst case" emission factors have been used.)
Natural Gas : Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted
No. 2 Fuel Oil: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted
Propane and Butane: Emission Factors for CO2 and CH4 from 40 CFR Part 98 Subpart C, Tables C-1 and 2, have been converted
Emission Factor (EF) Conversions
Natural Gas: EF (lb/MMCF) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of Natural Gas
Fuel Oils: EF (lb/kgal) = [EF (kg/MMBtu) * Conversion Factor (2.20462 lbs/kg) * Heating Value of the Fuel Oil (MMBtu/gal) *
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)] *
All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] * [Emission Factor (lb/kgal)] * [kgal/1000
Unlimited Potential to Emit CO2e (tons/yr) = Unlimited Potential to Emit CO2 of "worst case" fuel (ton/yr) x CO2 GWP (1) + Unlimited Potential
Note: No. 2 fuel oil is the "worst case" fuel
*The source will limit the combined CO2e emissions from the dryer mixer burner, hot oil heaters, diesel fuel-fired portable crusher, and dryer

Abbreviations
CH4 = Methane
CO2 = Carbon Dioxide
N2O = Nitrogen Dioxide
PTE = Potential to Emit

Appendix A.2: Limited Emissions Summary
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Output Horsepower Rating (hp)	0.0
Limited Hours Operated per Year	2500
Limited Throughput (hp-hr/yr)	0
Limited Diesel Fuel Usage (gal/yr)	0

	Pollutant						
	PM[2]	PM10[2]	direct PM2.5[2]	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Emission Factor in lb/kgal[1]	43.07	43.07	43.07	40.13	606.85	49.22	130.77
Limited Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

[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.

[1]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)

[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)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs[3]
Emission Factor in lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	3.91E-05	1.18E-03	7.67E-04	9.25E-05	1.68E-04
Emission Factor in lb/kgal[4]	1.28E-01	5.60E-02	3.91E-02	5.36E-03	1.62E-01	1.05E-01	1.27E-02	2.30E-02
Limited Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

[3]PAH = Polyaromatic 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.

[4]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**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2[5]	CH4[6]	N2O[6]
Emission Factor in lb/hp-hr	1.15	NA	NA
Emission Factor in kg/MMBtu	NA	0.003	0.0006
Emission Factor in lb/kgal	22,512.07	0.91	0.18
Limited Emission in tons/yr	0.00	0.000	0.000

[5]The AP-42 Chapter 3.3-1 emission factor in lb/hp-hr was converted to lb/kgal emission factor 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.

[5]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)

[6]The 40 CFR 98 Subpart C emission factors in kg/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) = 40 CFR 98 EF (kg/MMBtu) * 2.20462 (lb/kg) * 1/10^6 (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Summed Limited Emissions in tons/yr	**0.00**
CO2e Total in tons/yr	**0.00**

Methodology

Limited Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Limited Hours Operated per Year]

Limited Diesel Fuel Usage (gal/yr) = Limited Throughput (hp-hr/yr) * 7000 (Btu/hp-hr) * 1/19300 (lb/Btu) * 1/7.1 (gal/lb)

Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2 and have been converted to lb/kgal

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2 and have been converted to lb/kgal

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Limited Emissions (tons/yr) = [Limited Diesel Fuel Usage (gal/yr) x Emission Factor (lb/kgal)] / (1,000 ga/kgal) / (2,000 lb/ton)

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

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: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Output Horsepower Rating (hp)	0.0
Limited Hours Operated per Year	2500
Limited Throughput (hp-hr/yr)	0
Limited Diesel Fuel Usage (gal/yr)	0

Sulfur Content (S) of Fuel (% by weight): 0.50

	Pollutant						
	PM	PM10[2]	direct PM2.5[2]	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04			4.05E-03 *(.00809S)*	2.40E-02	7.05E-04	5.50E-03
Emission Factor in lb/MMBtu		0.0573	0.0573				
Emission Factor in lb/kgal[1]	13.70	7.85	7.85	79.18	469.82	13.80	107.67
Limited Emission in tons/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00

[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.

[1]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)

[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.

[2]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)

Hazardous Air Pollutants (HAPs)

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs[3]
Emission Factor in lb/MMBtu	7.76E-04	2.81E-04	1.93E-04	7.89E-05	2.52E-05	7.88E-06	2.12E-04
Emission Factor in lb/kgal[4]	1.06E-01	3.85E-02	2.64E-02	1.08E-02	3.45E-03	1.08E-03	2.91E-02
Limited Emission in tons/yr	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

[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.

[4]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**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2[5]	CH4[5,6]	N2O[7]
Emission Factor in lb/hp-hr	1.16	6.35E-05	NA
Emission Factor in kg/MMBtu	NA	NA	0.0006
Emission Factor in lb/kgal	22,707.83	1.24	0.18
Limited Emission in tons/yr	0.00	0.00	0.00

[5] 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.

[5]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)

[6]According to AP-42, Table 3.4-1, TOC (as CH4) is 9% methane by weight. As a result, the lb/hp-hr emission factor for TOC (as CH4) in AP-42 has been multiplied by 9% to determine the portion that is emitted as methane.

[7]The 40 CFR 98 Subpart C emission factors in kg/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.

[7]Emission factor (lb/kgal) = 40 CFR 98 EF (kg/MMBtu) * 2.20462 (lb/kg) * 1/10^6 (MMBtu/Btu) * 19,300 (Btu/lb) * 7.1 (lb/gal) * 1,000 (gal/kgal)

Summed Potential Emissions in tons/yr	**0.00**
CO2e Total in tons/yr	**0.00**

Methodology

Limited Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Limited Hours Operated per Year]

Limited Diesel Fuel Usage (gal/yr) = Limited Throughput (hp-hr/yr) * 7000 (Btu/hp-hr) * 1/19300 (lb/Btu) * 1/7.1 (gal/lb)

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4 and have been converted to lb/kgal.

N2O Emission Factor from 40 CFR 98 Subpart C Table C-2 and have been converted to lb/kgal.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Limited Emissions (tons/yr) = [Limited Diesel Fuel Usage (gal/yr) x Emission Factor (lb/kgal)] / (1,000 ga/kgal) / (2,000 lb/ton)

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Appendix A.2: Limited Emissions Summary
Asphalt Load-Out, Silo Filling, and Yard Emissions

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

The following calculations determine the limited fugitive emissions from hot asphalt mix load-out, silo filling, and on-site yard for a drum mix hot mix asphalt plant

Asphalt Temperature, T =	325	F
Asphalt Volatility Factor, V =	-0.5	
Annual Asphalt Production Limitation =	492,792	tons/yr

	Emission Factor (lb/ton asphalt)			Limited Potential to Emit (tons/yr)			
Pollutant	**Load-Out**	**Silo Filling**	**On-Site Yard**	**Load-Out**	**Silo Filling**	**On-Site Yard**	**Total**
Total PM*	5.2E-04	5.9E-04	NA	0.13	0.14	NA	**0.27**
Organic PM	3.4E-04	2.5E-04	NA	0.08	0.063	NA	**0.15**
TOC	0.004	0.012	0.001	1.02	3.00	0.271	**4.3**
CO	0.001	0.001	3.5E-04	0.33	0.291	0.087	**0.71**

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

PM/HAPs	**0.006**	**0.007**	**0**	**0.013**
VOC/HAPs	**0.015**	**0.038**	**0.004**	**0.057**
non-VOC/HAPs	**7.9E-05**	**8.1E-06**	**2.1E-05**	**1.1E-04**
non-VOC/non-HAPs	**0.07**	**0.04**	**0.02**	**0.14**

Total VOCs	**0.96**	**3.00**	**0.3**	**4.2**
Total HAPs	**0.02**	**0.05**	**0.004**	**0.07**
			Worst Single HAP	**0.022 (formaldehyde)**

Methodology
The asphalt temperature and volatility factor were provided by the source.
Limited Potential to Emit (tons/yr) = (Annual Asphalt Production Limitation (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-14, 11.1-15, and 11.1-16
Plant Load-Out Emission Factor Equations (AP-42 Table 11.1-14)::
Total PM/PM10 Ef = 0.000181 + 0.00141(-V)e^((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
CO = Carbon Monoxide
PM = Particulate
Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound

Appendix A.2: Limited Emissions Summary
Asphalt Load-Out, Silo Filling, and Yard Emissions (continued)

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Organic Particulate-Based Compounds (Table 11.1-15)

					Speciation Profile		Limited Potential to Emit (tons/yr)			
Pollutant	CASRN	Category	HAP Type	Source	Load-out and Onsite Yard (% by weight of Total Organic PM)	Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)	Load-out	Silo Filling	Onsite Yard	Total
PAH HAPs										
Acenaphthene	83-32-9	PM/HAP	POM	Organic PM	0.26%	0.47%	2.2E-04	2.9E-04	NA	5.1E-04
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	0.014%	2.4E-05	8.8E-06	NA	3.2E-05
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	0.13%	5.9E-05	8.1E-05	NA	1.4E-04
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	0.056%	1.6E-05	3.5E-05	NA	5.1E-05
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	0	6.4E-06	0	NA	6.4E-06
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	0	1.8E-06	0	NA	1.8E-06
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	0	1.6E-06	0	NA	1.6E-06
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	0	1.9E-06	0	NA	1.9E-06
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	0.0095%	6.6E-06	5.9E-06	NA	1.2E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	0.21%	8.7E-05	1.3E-04	NA	2.2E-04
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	0	3.1E-07	0	NA	3.1E-07
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	0.15%	4.2E-05	9.4E-05	NA	1.4E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.01%	6.5E-04	6.3E-04	NA	1.3E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	0	3.9E-07	0	NA	3.9E-07
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	5.27%	2.0E-03	3.3E-03	NA	0.005
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	1.82%	1.1E-03	1.1E-03	NA	2.2E-03
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	0.03%	1.8E-05	1.9E-05	NA	3.7E-05
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.80%	6.8E-04	1.1E-03	NA	1.8E-03
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	0.44%	1.3E-04	2.8E-04	NA	4.0E-04
Total PAH HAPs							**0.005**	**0.007**	**NA**	**0.012**
Other semi-volatile HAPs										
Phenol		PM/HAP	---	Organic PM	1.18%	0	9.9E-04	0	0	9.9E-04

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

Methodology
Limited Potential to Emit (tons/yr) = [Speciation Profile (%)] * [Organic PM (tons/yr)]
Speciation Profiles from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-15 and 11.1-16

Abbreviations
PM = Particulate Matter
HAP = Hazardous Air Pollutant
POM = Polycyclic Organic Matter

Appendix A.2: Limited Emissions Summary
Asphalt Load-Out, Silo Filling, and Yard Emissions (continued)

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Organic Volatile-Based Compounds (Table 11.1-16)

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Limited Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of TOC)	Silo Filling and Asphalt Storage Tank (% by weight of TOC)	Load-out	Silo Filling	Onsite Yard	Total
VOC		VOC	---	TOC	94%	100%	**0.96**	**3.00**	**0.25**	**4.22**
non-VOC/non-HAPS										
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	0.26%	6.7E-02	7.8E-03	1.8E-02	0.092
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	0.055%	4.7E-04	1.7E-03	1.2E-04	0.002
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.10%	7.3E-03	3.3E-02	1.9E-03	0.042
Total non-VOC/non-HAPS					7.30%	1.40%	**0.075**	**0.042**	**0.020**	**0.14**
Volatile organic HAPs										
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	0.032%	5.3E-04	9.6E-04	1.4E-04	1.6E-03
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	0.0049%	9.8E-05	1.5E-04	2.6E-05	2.7E-04
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	0.039%	5.0E-04	1.2E-03	1.3E-04	1.8E-03
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	0.016%	1.3E-04	4.8E-04	3.5E-05	6.5E-04
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	0.004%	2.2E-06	1.2E-04	5.7E-07	1.2E-04
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	0.023%	1.5E-04	6.9E-04	4.1E-05	8.9E-04
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	0	1.1E-03	0	3.0E-04	1.4E-03
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	0.038%	2.9E-03	1.1E-03	7.6E-04	0.005
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	0.69%	9.0E-04	2.1E-02	2.4E-04	0.022
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	0.10%	1.5E-03	3.0E-03	4.1E-04	0.005
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	0.00031%	1.8E-05	9.3E-06	4.9E-06	3.3E-05
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0.00027%	0	8.1E-06	0	8.1E-06
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	0.0054%	7.5E-05	1.6E-04	2.0E-05	2.6E-04
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	0	7.9E-05	0	2.1E-05	1.0E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	0.062%	2.2E-03	1.9E-03	5.7E-04	0.005
1,1,1-Trichloroethane	71-55-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichloroethene	79-01-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	VOC/HAP	---	TOC	0.0013%	0	1.3E-05	0	3.5E-06	1.7E-05
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	0.20%	4.2E-03	6.0E-03	1.1E-03	0.011
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	0.057%	8.2E-04	1.7E-03	2.2E-04	2.7E-03
Total volatile organic HAPs					1.50%	1.30%	**0.015**	**0.039**	**0.004**	**0.058**

Methodology
Limited Potential to Emit (tons/yr) = [Speciation Profile (%)] * [TOC (tons/yr)]
Speciation Profiles from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-15 and 11.1-16

Abbreviations
TOC = Total Organic Compounds
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
MTBE = Methyl tert butyl ether

Appendix A.2: Limited Emissions Summary
Material Storage Piles

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

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*(s/1.5)*(365-p)/235*(f/15)
where 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

Material	Silt Content (wt %)*	Emission Factor (lb/acre/day)	Maximum Anticipated Pile Size (acres)**	PTE of PM (tons/yr)	PTE of PM10/PM2.5 (tons/yr)
Sand	2.6	3.01	2.75	1.510	0.529
Limestone	1.6	1.85	0	0.000	0.000
RAP	0.5	0.58	2.25	0.238	0.083
Gravel	1.6	1.85	0	0.000	0.000
Shingles	0.5	0.58	0.15	0.016	0.006
Slag	3.8	4.40	0.30	0.241	0.084
			Totals	**2.00**	**0.70**

Note:

The source has limestone, dolomite, sand and gravel storage piles, with a combined maximum anticipated pile size of 2.75 acres, therefore the worst case emission factor for sand was used to calculate the PTE.

Methodology
PTE of PM (tons/yr) = (Emission Factor (lb/acre/day)) * (Maximum Pile Size (acres)) * (ton/2000 lbs) * (8760 hours/yr)
PTE of PM10/PM2.5 (tons/yr) = (Potential PM Emissions (tons/yr)) * 35%
*Silt content values obtained from AP-42 Table 13.2.4-1 (dated 1/95)
**Maximum anticipated pile size (acres) provided by the source.
PM2.5 = PM10

Abbreviations
RAP = recycled asphalt pavement
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit

Appendix A.2: Limited Emissions Summary
Material Processing, Handling, Crushing, Screening, and Conveying

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

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)*[(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 11.1.1.1)
Ef (PM) =	2.27E-03	lb PM/ton of material handled
Ef (PM10) =	1.07E-03	lb PM10/ton of material handled
Ef (PM2.5) =	1.62E-04	lb PM2.5/ton of material handled

Annual Asphalt Production Limitation =	492,792	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	468,153	tons/yr

Type of Activity	Limited PTE of PM (tons/yr)	Limited PTE of PM10 (tons/yr)	Limited PTE of PM2.5 (tons/yr)
Truck unloading of materials into storage piles	0.53	0.25	0.04
Front-end loader dumping of materials into feeder bins	0.53	0.25	0.04
Conveyor dropping material into dryer/mixer or batch tower	0.53	0.25	0.04
Total (tons/yr)	**1.59**	**0.75**	**0.11**

Methodology
The percent asphalt cement/binder provided by the source.
Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
Limited Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)
Raw materials may include limestone, sand, recycled asphalt pavement (RAP), gravel, slag, and other additivies
*Worst case annual mean wind speed (Indianapolis, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006

Material Screening and Conveying (AP-42 Section 19.2.2)
To estimate potential fugitive dust emissions from raw material crushing, screening, and conveying, AP-42 emission factors for Crushed Stone Processing Operations, Section 19.2.2 (dated 8/04) are utilized.

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Limited PTE of PM (tons/yr)	Limited PTE of PM10/PM2.5 (tons/yr)**
Crushing	0.0054	0.0024	1.26	0.56
Screening	0.025	0.0087	5.85	2.04
Conveying	0.003	0.0011	0.70	0.26
Limited Potential to Emit (tons/yr) =			**7.82**	**2.86**

Methodology
Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
Limited Potential to Emit (tons/yr) = [Maximum Material Handling Throughput (tons/yr)] * [Emission Factor (lb/ton)] * [ton/2000 lbs]
Raw materials may include stone/gravel, slag, and recycled asphalt pavement (RAP)
Emission Factors from AP-42 Chapter 11.19.2 (dated 8/04), Table 11.19.2-2
*Uncontrolled emissions factors for PM/PM10 represent tertiary crushing of stone with moisture content ranging from 0.21 to 1.3 percent by weight (Table 11.19.2-2). The bulk moisture content of aggregate in the storage piles at a hot mix asphalt production plant typically stabilizes between 3 to 5 percent by weight (Source: AP-42 Section 11.1.1.1).
**Assumes PM10 = PM2.5
Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit

Appendix A.2: Limited Emissions Summary
Unpaved Roads

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Unpaved Roads at Industrial Site
The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Annual Asphalt Production Limitation =	492,792	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	468,153	tons/yr
Maximum Asphalt Cement/Binder Throughput =	24,640	tons/yr
No. 2 Fuel Oil Limitation =	2,400,971	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	13.5	20.0	33.5	2.3E+04	7.8E+05	275	0.052	1219.1
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	13.5	0	13.5	2.3E+04	3.2E+05	275	0.052	1219.1
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	6.8E+02	3.3E+04	300	0.057	38.9
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	6.8E+02	8.2E+03	300	0.057	38.9
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.0	2.5E+02	1.1E+04	300	0.057	14.4
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	2.5E+02	3.0E+03	300	0.057	14.4
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.2	1.1E+05	2.1E+06	360	0.068	7599.9
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	1.1E+05	1.7E+06	360	0.068	7599.9
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	13.5	20.0	33.5	2.5E+04	8.3E+05	300	0.057	1400.0
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	13.5	0	13.5	2.5E+04	3.3E+05	300	0.057	1400.0
	Total				**3.2E+05**	**6.1E+06**			**2.1E+04**

Average Vehicle Weight Per Trip =	19.1	tons/trip
Average Miles Per Trip =	0.064	miles/trip

Unmitigated Emission Factor, Ef = k*[(s/12)^a]*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant Road)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2)
W =	19.1	19.1	19.1	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [(365 - P)/365]
Mitigated Emission Factor, Eext = E * [(365 - P)/365]

where P =	125	days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	5.93	1.51	0.15	lb/mile
Mitigated Emission Factor, Eext =	3.90	0.99	0.10	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	3.62	0.92	0.09	2.38	0.61	0.06	1.19	0.30	0.03
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	3.62	0.92	0.09	2.38	0.61	0.06	1.19	0.30	0.03
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.115	0.029	0.00	0.076	0.019	1.9E-03	0.038	0.010	9.7E-04
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.115	0.029	0.00	0.076	0.019	1.9E-03	0.038	0.010	9.7E-04
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.043	0.011	1.1E-03	0.028	0.007	7.2E-04	0.014	0.004	3.6E-04
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.043	0.011	1.1E-03	0.028	0.007	7.2E-04	0.014	0.004	3.6E-04
Aggregate/RAP Loader Full	Front-end loader (3 CY)	22.55	5.75	0.57	14.82	3.78	0.38	7.41	1.89	0.19
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	22.55	5.75	0.57	14.82	3.78	0.38	7.41	1.89	0.19
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	4.15	1.06	0.11	2.73	0.70	0.07	1.37	0.35	0.03
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	4.15	1.06	0.11	2.73	0.70	0.07	1.37	0.35	0.03
	Totals	**60.95**	**15.53**	**1.55**	**40.07**	**10.21**	**1.02**	**20.04**	**5.11**	**0.51**

Methodology
Maximum Material Handling Throughput = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
Maximum Asphalt Cement/Binder Throughput = [Annual Asphalt Production Limitation (tons/yr)] * [Percent Asphalt Cement/Binder (weight %)]
Maximum Weight of Vehicle and Load (tons/trip) = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]
Maximum trips per year (trip/yr) = [Throughput (tons/yr)] / [Maximum Weight of Load (tons/trip)]
Total Weight driven per year (ton/yr) = [Maximum Weight of Vehicle and Load (tons/trip)] * [Maximum trips per year (trip/yr)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/yr) = [Maximum trips per year (trip/yr)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

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

Appendix A.2: Limited Emissions Summary
Paved Roads

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (12/2003).

Annual Asphalt Production Limitation =	492,792	tons/yr
Percent Asphalt Cement/Binder (weight %) =	5.0%	
Maximum Material Handling Throughput =	468,153	tons/yr
Maximum Asphalt Cement/Binder Throughput =	24,640	tons/yr
No. 2 Fuel Oil Limitation =	2,400,971	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per day (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	13.5	20.0	33.50	2.3E+04	7.8E+05	300	0.057	1330.0
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	13.5	0	13.50	2.3E+04	3.2E+05	300	0.057	1330.0
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.00	6.8E+02	3.3E+04	300	0.057	38.9
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	6.8E+02	8.2E+03	300	0.057	38.9
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.00	2.5E+02	1.1E+04	300	0.057	14.4
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.00	2.5E+02	3.0E+03	300	0.057	14.4
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.20	1.1E+05	2.1E+06	300	0.057	6333.2
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.00	1.1E+05	1.7E+06	300	0.057	6333.2
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	13.5	20.0	33.50	2.5E+04	8.3E+05	600	0.114	2800.0
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	13.5	0	13.50	2.5E+04	3.3E+05	600	0.114	2800.0
	Total				**3.2E+05**	**6.1E+06**			**2.1E+04**

Average Vehicle Weight Per Trip =	19.1	tons/trip
Average Miles Per Trip =	0.066	miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
W =	19.1	19.1	19.1	tons = average vehicle weight (provided by source)
sL =	0.6	0.6	0.6	g/m^2 = Ubitiguous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)]
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]

where p =	125	days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N =	365	days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.14	0.03	0.01	lb/mile
Mitigated Emission Factor, Eext =	0.13	0.03	0.01	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	0.09	0.02	0.00	0.09	0.02	0.00	0.04	0.01	0.00
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	0.09	0.02	0.00	0.09	0.02	0.00	0.04	0.01	0.00
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.003	0.001	1.3E-04	0.002	0.000	1.2E-04	0.001	2.5E-04	6.1E-05
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.003	0.001	1.3E-04	0.002	0.000	1.2E-04	0.001	2.5E-04	6.1E-05
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	1.0E-03	2.0E-04	4.9E-05	9.2E-04	1.8E-04	4.5E-05	4.6E-04	9.2E-05	2.3E-05
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	1.0E-03	2.0E-04	4.9E-05	9.2E-04	1.8E-04	4.5E-05	4.6E-04	9.2E-05	2.3E-05
Aggregate/RAP Loader Full	Front-end loader (3 CY)	0.44	0.09	0.02	0.41	0.08	0.02	0.20	0.04	0.01
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	0.44	0.09	0.02	0.41	0.08	0.02	0.20	0.04	0.01
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	0.20	0.04	0.01	0.18	0.04	0.01	0.09	0.02	0.00
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	0.20	0.04	0.01	0.18	0.04	0.01	0.09	0.02	0.00
	Totals	**1.47**	**0.29**	**0.07**	**1.35**	**0.27**	**0.07**	**0.67**	**0.13**	**0.03**

Methodology
Maximum Material Handling Throughput = [Annual Asphalt Production Limitation (tons/yr)] * [1 - Percent Asphalt Cement/Binder (weight %)]
Maximum Asphalt Cement/Binder Throughput = [Annual Asphalt Production Limitation (tons/yr)] * [Percent Asphalt Cement/Binder (weight %)]
Maximum Weight of Vehicle and Load (tons/trip) = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]
Maximum trips per year (trip/yr) = [Throughput (tons/yr)] / [Maximum Weight of Load (tons/trip)]
Total Weight driven per year (ton/yr) = [Maximum Weight of Vehicle and Load (tons/trip)] * [Maximum trips per year (trip/yr)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/yr) = [Maximum trips per year (trip/yr)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

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

Appendix A.2: Limited Emissions Summary
Cold Mix Asphalt Production and Stockpiles

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

The following calculations determine the amount of VOC and HAP emissions created from volatilization of solvent used as diluent in the liquid binder for cold mix asphalt production

Limited VOC Emissions from the Sum of the Liquid Binders = 51.96 tons/yr

Volatile Organic Compounds

	Maximum weight % of VOC solvent in binder	Weight % VOC solvent in binder that evaporates	VOC Solvent Usage Limitation (tons/yr)	Limited PTE of VOC (tons/yr)	Liquid Binder Adjustment Ratio
Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)	25.3%	95.0%	54.70	51.96	1.053
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	74.23	51.96	1.429
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	207.84	51.96	4.000
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	111.99	51.96	2.155
Other asphalt with solvent binder	25.9%	2.5%	2078.44	51.96	40.0
Worst Case Limited PTE of VOC =				**51.96**	

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) =	**13.55**	
Limited PTE of Single HAP (tons/yr) =	**4.68**	**Xylenes**

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

		Hazardous Air Pollutant (HAP) Content (% by weight)* For Various Petroleum Solvents				
Volatile Organic HAP	CAS#	Gasoline	Kerosene	Diesel (#2) Fuel Oil	No. 2 Fuel Oil	No. 6 Fuel Oil
1,3-Butadiene	106-99-0	3.70E-5%				
2,2,4-Trimethylpentane	540-84-1	2.40%				
Acenaphthene	83-32-9		4.70E-5%		1.80E-4%	
Acenaphthylene	208-96-8		4.50E-5%		6.00E-5%	
Anthracene	120-12-7		1.20E-6%	5.80E-5%	2.80E-5%	5.00E-5%
Benzene	71-43-2	1.90%		2.90E-4%		
Benzo(a)anthracene	56-55-3			9.60E-7%	4.50E-7%	5.50E-4%
Benzo(a)pyrene	50-32-8			2.20E-6%	2.10E-7%	4.40E-5%
Benzo(g,h,i)perylene	191-24-2			1.20E-7%	5.70E-8%	
Biphenyl	92-52-4			6.30E-4%	7.20E-5%	
Chrysene	218-01-9			4.50E-7%	1.40E-6%	6.90E-4%
Ethylbenzene	100-41-4	1.70%		0.07%	3.40E-4%	
Fluoranthene	206-44-0		7.10E-6%	5.90E-5%	1.40E-5%	2.40E-4%
Fluorene	86-73-7		4.20E-5%	8.60E-4%	1.90E-4%	
Indeno(1,2,3-cd)pyrene	193-39-5			1.60E-7%		1.00E-4%
Methyl-tert-butylether	1634-04-4	0.33%				
Naphthalene	91-20-3	0.25%	0.31%	0.26%	0.22%	4.20E-5%
n-Hexane	110-54-3	2.40%				
Phenanthrene	85-01-8		8.60E-6%	8.80E-4%	7.90E-4%	2.10E-4%
Pyrene	129-00-0		2.40E-6%	4.60E-5%	2.90E-5%	2.30E-5%
Toluene	108-88-3	8.10%		0.18%	6.20E-4%	
Total Xylenes	1330-20-7	9.00%		0.50%	0.23%	
Total Organic HAPs		**26.08%**	**0.33%**	**1.29%**	**0.68%**	**0.19%**
Worst Single HAP		**9.00% Xylenes**	**0.31% Naphthalene**	**0.50% Xylenes**	**0.23% Xylenes**	**0.07% Chrysene**

Methodology
Limited PTE of VOC (tons/yr) = [Weight % VOC solvent in binder that evaporates] * [VOC Solvent Usage Limitation (tons/yr)]
Limited PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]
Limited PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] * [Worst Case Limited PTE of VOC (tons/yr)]

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science.

Abbreviations
VOC = Volatile Organic Compounds
PTE = Potential to Emit

Appendix A.2: Limited Emissions Summary
Gasoline Fuel Transfer and Dispensing Operation

Company Name: Milestone Contractors, L.P.
Source Address: 1972 West State Road, Ridgeville, IN 47380
Permit Number: 135-34588-03158
Reviewer: Nida Habeeb

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

Volatile Organic Compounds

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

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)]

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science.

Abbreviations
VOC = Volatile Organic Compounds
PTE = Potential to Emit

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Robert J Beyke
Milestone Contractors
5950 S Belmont Ave
Indianapolis, IN 46217

DATE: September 17, 2014

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
FESOP
135-34588-03158

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because 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.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Jim Gross VP - Plants Milestone Contractors
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

September 17, 2014

TO: Ridgeville Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Milestone Contractors LP
Permit Number: 135-34588-03158

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

IDEM Staff	CDENNY 9/17/2014 Milestone Contractors 135-34588-03158 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Robert J Beyke Milestone Contractors 5950 S Belmont Ave Indianapolis IN 46217 (Source CAATS)									
2		Jim Gross VP - Plants Milestone Contractors 5950 S Belmont Ave Indianapolis IN 46217 *(RO CAATS)*									
3		Ridgeville Public Library Walnut and Camden Rd, P.O. Box 63 Ridgeville IN 47380-0063 *(Library)*									
4		Randolph County Commissioners 100 South Main Street Winchester IN 47394 *(Local Official)*									
5		Randolph County Health Department 325 S. Oak St Winchester IN 47394 *(Health Department)*									
6		Ridgeville Town Council P.O. Box 43 Ridgeville IN 47380 *(Local Official)*									
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