



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: September 9, 2005
RE: Mar-Zane, Inc. / 057-21121-03300
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot 1/10/05



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr
Governor

Thomas W. Easterly
Commissioner

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

Mr. Ronald Morrison
Mar-Zane, Inc.
P.O. Box 1585
Zanesville, OH 43702

September 9, 2005

Re: 057-21121
First Significant Revision to
FESOP Renewal No. 057-18252-03300

Dear Mr. Morrison:

Mar-Zane, Inc. was issued a permit on August 25, 2004 for a hot asphalt batch mix plant. A letter requesting changes to this permit was received on April 14, 2005. 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.

The modification consists of constructing and operating one (1) hot asphalt drum mix operation and approval to use re-refined waste oil in the dryer/mixer burner. Additional emission units have been identified and incorporated into this revision.

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 attach a copy of this revision and the following revised permit to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Linda Quigley, c/o OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204, or call at (973) 575-2555, ext. 3284 or dial (800) 451-6027, and ask for extension 3-6878.

Sincerely,

Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

LQ/EVP

cc: File – Hamilton County
U.S. EPA, Region V
Hamilton County Health Department
Air Compliance Section Inspector – Marc Goldman
Compliance Data Section
Administrative and Development
Technical Support and Modeling



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) Renewal OFFICE OF AIR QUALITY

**Mar-Zane, Inc.
15215 River Avenue
Noblesville, Indiana 46060**

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

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

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

Operation Permit No.: F057-18252-03300	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: August 25, 2004 Expiration Date: August 25, 2009
First Significant Permit Revision No.: SPR057-21121-03300	Pages Affected: 5, 6, 15, 24-32, 36-39
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 9, 2005

SECTION A SOURCE SUMMARY 5

- A.1 General Information [326 IAC 2-8-3(b)]
- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]
- A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]
- A.4 FESOP Applicability [326 IAC 2-8-2]
- A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

SECTION B GENERAL CONDITIONS 7

- B.1 Permit No Defense [IC 13]
- B.2 Definitions [326 IAC 2-8-1]
- B.3 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5]
- B.4 Enforceability [326 IAC 2-8-6]
- B.5 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]
- B.6 Severability [326 IAC 2-8-4(4)]
- B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]
- B.8 Duty to Provide Information [326 IAC 2-8-4(5)(E)]
- B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]
- B.10 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]
- B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]
- B.12 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]
- B.13 Emergency Provisions [326 IAC 2-8-12]
- B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]
- 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]
- B.16 Permit Renewal [326 IAC 2-8-3(h)]
- B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]
- B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]
- B.19 Permit Revision Requirement [326 IAC 2-8-11.1]
- B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC13-14-2-2][IC 13-17-3-2][IC13-30-3-1]
- B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]
- 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]
- B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

SECTION C SOURCE OPERATION CONDITIONS 16

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

- C.1 Overall Source Limit [326 IAC 2-8]
- C.2 Opacity [326 IAC 5-1]
- C.3 Open Burning [326 IAC 4-1][IC 13-17-9]
- C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]
- C.5 Fugitive Dust Emissions [326 IAC 6-4]
- C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]
- C.7 Stack Height [326 IAC 1-7]
- C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61 Subpart M]

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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)]
- C.12 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]
- C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

- C.14 Emergency Reduction Plan [326 IAC 1-5-1] [326 IAC 1-5-3]
- C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]
- C.16 Compliance Response Plan -Preparation, Implementation, Records, and Reports [326 IAC 2-8-4][326 IAC 2-8-5]
- C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

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

- C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]
- C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

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

SECTION D.1 FACILITY OPERATION CONDITIONS

One (1) Drum Mix Aggregate Dryer and Conveying.....24

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

- D.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]
- D.1.2 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.90, Subpart I]
- D.1.3 Particulate Matter 10 Microns (PM₁₀) [326 IAC 2-8-4] [326 IAC 2-2]
- D.1.4 Particulate Matter (PM) [326 IAC 2-2]
- D.1.5 Sulfur Dioxide (SO₂) [326 IAC 7-1.1] [326 IAC 7-2-1]
- D.1.6 SO₂ Emissions – Re-refined Waste Oil Usage [326 IAC 2-8-4] [326 IAC 2-2]
- D.1.7 NO_x Emissions – Natural Gas Usage [326 IAC 2-8-4] [326 IAC 2-3]
- D.1.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.1.9 Testing Requirements [326 IAC 2-8-5(1)]
- D.1.10 Used Oil Requirements [326 IAC 13-8]
- D.1.11 Sulfur Dioxide Emissions and Sulfur Content

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

- D.1.12 Particulate Matter (PM)
- D.1.13 Visible Emissions Notations
- D.1.14 Parametric Monitoring
- D.1.15 Baghouse Inspections
- D.1.16 Broken Bag or Failure Detection

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

- D.1.17 Record Keeping Requirements
- D.1.18 Reporting Requirements

SECTION D.2 FACILITY OPERATION CONDITIONS

Cold mix asphalt storage piles.....30

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

- D.2.1 Volatile Organic Compounds [326 IAC 2-8-4] [326 IAC 2-3]
- D.2.2 Volatile Organic Compounds [326 IAC 8-5-2]

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

- D.2.3 Record Keeping Requirements
- D.2.4 Reporting Requirements

SECTION D.3 FACILITY OPERATION CONDITIONS	
One (1) Asphalt Cement Storage Tank.....	32
Emission Limitations and Standards [326 IAC 2-8-4(1)]	
D.3.1 Volatile Organic Compounds [326 IAC 12] [40 CFR 60.110b, Subpart Kb]	
Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]	
D.3.2 Record Keeping Requirements	
Certification Form	33
Emergency Occurrence Form.....	34
Quarterly Report Form (Aggregate Dryer – NO_x Emissions).....	36
Quarterly Report Form (Aggregate Dryer – SO₂ Emissions)	37
Quarterly Report Form (Stockpile Mix – VOC Emissions)	38
Quarterly Deviation and Compliance Monitoring Report Form	40

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 stationary asphalt paving mixture and block manufacturing plant.

Authorized individual:	Vice President of Environmental Affairs
Source Address:	15215 River Avenue, Noblesville, Indiana 46060
Mailing Address:	P. O. Box 1585, Zanesville, Ohio 43702-1585
General Source Phone:	(740) 453-0721
SIC Code:	2951
Source Location Status:	Hamilton
	Basic nonattainment for Ozone under 8-hr Standard
	Nonattainment for PM _{2.5} Standard
	Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP)
	Minor Source, under PSD and Emission Offset;
	Minor Source, Section 112 of the Clean Air Act

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

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

Scenario A

- (a) One (1) stationary hot asphalt batch mixer and aggregate dryer, with a maximum capacity of 400 tons per hour, equipped with one (1) natural gas-fired burner with a rated heat input of 150 million British thermal units per hour (MMBtu/hr), using No.2 fuel oil and re-refined waste fuel oil as backup fuels, utilizing one (1) baghouse for particulate matter (PM) emissions control, and exhausting through one (1) stack (Stack ID: SV1);

Scenario B

- (a) One (1) hot asphalt drum mixer capable of processing 400 tons per hour of raw material, equipped with one (1) 150 million British thermal units per hour (MMBtu/hr), natural gas fired burner using No. 2 distillate fuel oil and re-refined waste fuel oil as backup fuels, controlling particulate emissions with one (1) baghouse, exhausting at one (1) stack, identified as SV1, to be installed in 2005;

The batch mixer and the drum mixer cannot physically operate at the same time.

- (b) Three (3) asphalt storage silos, identified as BS 1, BS 2 and BS 3, with a combined maximum throughput of 3,504,000 ton per year of asphalt, using no control, to be installed in 2005;
- (c) Three (3) liquid asphalt storage tanks installed in 1985, identified as TK1, TK2 and TK4, with maximum capacities of 21,374 gallons, 22,669 gallons, and 10,363 gallons, respectively;

- (d) One (1) liquid asphalt storage tank installed in 2004, identified as TK3, with a maximum capacity of 28,499 gallons;
- (e) cold mix asphalt storage piles; and
- (f) one (1) asphalt cement storage tank with a maximum capacity of 30,000 gallons.

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

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

- (a) Two (2) hot oil heaters each rated at 2.0 MMBtu per hour combusting natural gas and No.2 fuel oil as a backup, and exhausting through one(1) stack;
- (b) One (1) portable No. 2 distillate fuel oil storage tank with a maximum storage capacity of 10,000 gallons;
- (c) One (1) portable emulsion storage tank with a maximum storage capacity of 10,000 gallons;
- (d) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (e) Paved and unpaved roads and parking lots with public access;
- (f) Truck and conveyor transfer operations; and
- (g) Aggregate stockpiles and vehicular trafficking.

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

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

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

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

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

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

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

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

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

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

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

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

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

B.6 Severability [326 IAC 2-8-4(4)]

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

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

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

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

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

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

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

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

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

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

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

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

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

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
 - (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ,. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
 - (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.13 Emergency Provisions [326 IAC 2-8-12]

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

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
 - (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

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

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

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

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

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

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

Request for renewal shall be submitted to:

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

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
 - (2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

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

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204
- Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

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

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

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

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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

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

- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

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

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-17-3-2][IC13-30-3-1]

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

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

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

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

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

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

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

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

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

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

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Overall Source Limit [326 IAC 2-8]

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

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD));
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

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

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided 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.2 Opacity [326 IAC 5-1]

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

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

C.3 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.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

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

C.5 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.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

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

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

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

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

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

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

All required notifications shall be submitted to:

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

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

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

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

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

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

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

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

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

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

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

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

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (" 2%) of full scale reading.
- (b) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

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

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

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

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

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) If the ERP is disapproved by IDEM, OAQ (and local agency when applicable), 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 (and local agency when applicable), that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.

- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

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

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

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

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

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

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

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

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

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

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

Stratospheric Ozone Protection

C.20 Compliance with [40 CFR 82] and [326 IAC 22-1]

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

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

SECTION D.1

FACILITY OPERATION CONDITIONS

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

Scenario A

- (a) One (1) stationary hot asphalt batch mixer and aggregate dryer, with a maximum capacity of 400 tons per hour, equipped with one (1) natural gas-fired burner with a rated heat input of 150 million British thermal units per hour (MMBtu/hr), using No.2 fuel oil and re-refined waste fuel oil as backup fuels, utilizing one (1) baghouse for particulate matter (PM) emissions control, and exhausting through one (1) stack (Stack ID: SV1);

Scenario B

- (a) One (1) hot asphalt drum mixer capable of processing 400 tons per hour of raw material, equipped with one (1) 150 million British thermal units per hour (MMBtu/hr), natural gas fired burner using No. 2 distillate fuel oil and re-refined waste fuel oil as backup fuels, controlling particulate emissions with one (1) baghouse, exhausting at one (1) stack, identified as SV1, to be installed in 2005;

The batch mixer and the drum mixer cannot physically operate at the same time.

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

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

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

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

D.1.2 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.90, Subpart I]

- (a) Pursuant to 326 IAC 12 and 40 CFR Part 60.90, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, the particulate matter emissions from the mixing and drying operations shall be limited to 0.04 grains per dry standard cubic foot (gr/dscf).
- (b) Pursuant to 326 IAC 12 and 40 CFR Part 60.92, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, the mixing and drying operations shall not discharge or cause the discharge into the atmosphere any gases which exhibit 20% opacity or greater.

D.1.3 Particulate Matter 10 Microns (PM₁₀) [326 IAC 2-8-4][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4, PM-10 emissions from the aggregate dryer shall be limited to 0.047 pound PM-10 per ton of asphalt mix, based on a maximum throughput of 400 tons of asphalt mix per hour. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM-10 emissions from the aggregate mixing and drying operation to 83.11 tons per year for a source-wide total potential to emit of less than 100 tons per year. Compliance with this limit renders 326 IAC 2-7 and 326 IAC 2-2 not applicable.

D.1.4 Particulate Matter (PM) [326 IAC 2-2]

PM emissions from the aggregate dryer shall be limited to 0.108 pound PM per ton of asphalt mix, based on a maximum throughput of 400 tons of asphalt mix per hour. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM emissions from the aggregate mixing and drying operation to 189.28 tons per year for a source-wide total potential to emit of less than 250 tons per year. Compliance with this limit shall render the requirements of 326 IAC 2-2 not applicable.

D.1.5 Sulfur Dioxide (SO₂) [326 IAC 7-1.1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 150.0 million Btu per hour burner for the batch mix and drum mix aggregate dryer shall be limited to:

- (a) 0.5 pounds per million Btu heat input or a sulfur content of less than or equal to 0.5% when using distillate oil, and
- (b) 1.6 pounds per million Btu heat input when using re-refined waste oil. Compliance with this limit shall be achieved by limiting the sulfur content of the re-refined waste oil to 0.5% by weight or less.

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

D.1.6 SO₂ Emissions – Re-refined Waste Oil usage [326 IAC 2-8-4] [326 IAC 2-2]

- (a) The input of re-refined waste oil and re-refined waste oil equivalents to the aggregate dryer burner shall be limited to 2,476,730 U.S. gallons per twelve (12) consecutive month period with compliance determined at the end of each month and based on re-refined waste oil having a maximum sulfur content of 0.50%.
- (b) Every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 966.0 gallons of re-refined waste oil based on SO₂ emissions, such that the total gallons of re-refined waste oil and re-refined waste oil equivalent input does not exceed the limit specified.
- (c) For purposes of determining compliance, when natural gas is burned, the following equivalency calculations shall be performed:
 - (1) every MMCF of natural gas burned is equivalent to 8.4 gallons of No.2 fuel oil burned.
 - (2) every MMCF of natural gas burned is equivalent to 8.16 gallons of waste oil burned.

Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 will not apply.

D.1.7 NO_x Emissions - Natural Gas Usage [326 IAC 2-8-4][326 IAC 2-3]

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

- (a) The input of natural gas and natural gas equivalents to the aggregate dryer burner shall not exceed 1,025.26 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) For purposes of determining compliance, when No.2 fuel oil is burned, the following equivalency calculation shall be performed: every 1000 gallons (1 kgal) of No.2 fuel oil burned is equivalent to 0.3737 MMCF of natural gas burned;
- (c) For the purposes of determining compliance, when waste oil is burned, the following equivalency calculation shall be performed: every 1000 gallons (1 kgal) of waste oil burned is equivalent to 0.3868 MMCF of natural gas burned.

Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.1.9 Testing Requirements [326 IAC 2-8-5(1)]

- (a) During the period between 18 and 24 months after issuance of this permit, in order to demonstrate compliance with Conditions D.1.2, D.1.3 and D.1.4, for the batch mix operation, the Permittee shall perform PM, PM₁₀, and Opacity testing for aggregate mixing and drying operations utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensible PM₁₀. Testing shall be conducted in accordance with Section C – Performance Testing.
- (b) Within 60 days of achieving the maximum production rate but no later than 180 days after the start up of the drum mixer, in order to demonstrate compliance with Conditions D.1.2, D.1.3 and D.1.4, for the drum mix operation, the Permittee shall perform PM, PM₁₀, and Opacity testing for the aggregate mixing and drying operations utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensible PM₁₀. Testing shall be conducted in accordance with Section C – Performance Testing.

D.1.10 Used Oil Requirements [329 IAC 13-8]

- (a) Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:
 - (1) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),
- (c) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and
 - (3) Maintain records pursuant to 329 IAC 13-8-6 (Tracking).
- (b) The waste oil burned in the dryer/mixer burner shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). The burning of mixtures of used oil and hazardous waste that is regulated by 329 IAC 3.1 is prohibited at this source.

D.1.11 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Conditions D.1.5 and D.1.6 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

- (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the dryer/mixer burner using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) 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.1.12 Particulate Matter (PM)

The baghouse for PM control shall be in operation at all times when the aggregate dryer is in operation and exhausting to the outside atmosphere.

D.1.13 Visible Emissions Notations

- (a) Once per day visible emission notations of the conveying, material transfer points, mixing and drying operations (aggregate dryer) baghouse stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

D.1.14 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer, at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - -Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

D.1.15 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the one (1) stationary hot asphalt batch mixer and aggregate dryer operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.1.16 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.1.17 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.5 and D.1.6, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limit established in Conditions D.1.5 and D.1.6.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period. The natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

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

- (4) Fuel supplier certifications;

- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

To document compliance with Condition D.1.6, the Permittee shall maintain records in accordance with (1) through (3) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual waste oil usage and actual waste oil equivalence usage per month since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

- (b) To document compliance with Condition D.1.7, the Permittee shall maintain records in accordance with (1) through (3) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual natural gas usage and actual natural gas equivalence usage per month since last compliance determination period and equivalent NOx emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period.

- (c) To document compliance with Condition D.1.8, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

- (d) To document compliance with Condition D.1.13, the Permittee shall maintain records of daily visible emission notations of the aggregate dryer baghouse stack exhaust.

- (e) To document compliance with Condition D.1.14, the Permittee shall maintain the records of the pressure drop once per day.

- (f) To document compliance with Condition D.1.15 the Permittee shall maintain records of the results of the inspections required under Condition D.1.15.

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

D.1.18 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.6 and D.1.7 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

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

cold mix asphalt storage piles.

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

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

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4] [326 IAC 2-3]

The VOC solvent usage as cut back diluent in the liquid binder used in cold mix asphalt production shall be limited such that VOC emissions shall not exceed 78.93 tons per twelve (12) consecutive months with compliance determined at the end of each month. This shall be achieved by limiting the total VOC solvent usage of any one selected binder to not exceed the stated limit above for that binder during the last twelve (12) months. When more than one binder is used, the formula in paragraph (b)(4) below must be applied so that the total VOC emitted does not exceed 78.93 tons per twelve (12) consecutive month period.

(a) Liquid binder definitions:

- (1) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.
- (2) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.
- (3) Cut back asphalt slow cure, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.

(b) The liquid binder in cold mix asphalt production shall be limited as follows:

- (1) Cutback asphalt rapid cure liquid binder usage shall not exceed 86.03 tons of VOC solvent per twelve (12) consecutive month period with compliance determined at the end of each month.
- (2) Cutback asphalt medium cure liquid binder usage shall not exceed 116.76 tons of VOC solvent per twelve (12) consecutive month period with compliance determined at the end of each month.
- (3) Cutback asphalt slow cure liquid binder usage shall not exceed 326.92 tons of VOC solvent per twelve (12) consecutive month period with compliance determined at the end of each month.
- (4) The VOC solvent allotments in paragraph (b)(1) through (b)(3) above shall be adjusted when more than one type of binder is used per twelve (12) month consecutive period. 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 ratio listed in the table that follows.

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	

The equivalent total tons of VOC of the combined liquid binders shall be less than 78.93 tons per twelve (12) consecutive month period.

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) of distillate by volume of emulsion for any paving application except:

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

Compliance Determination Requirements

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

D.2.3 Record Keeping Requirements

(a) To document compliance with Condition D.2.1, the Permittee shall maintain records of cold mix asphalt VOC in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.2.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

- (1) The amount and type of liquid binds;
- (2) The volume weighted VOC and solvent content of liquid binds used for each month;
- (3) The total amount of VOC solvent usage for each month; and
- (4) The weight of VOCs emitted for each compliance period.

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

D.2.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by an "Authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.3

FACILITY OPERATION CONDITIONS

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

One (1) asphalt cement storage tank, with a maximum storage capacity of 30,000 gallons;

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

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

D.3.1 Volatile Organic Compounds (VOCs) [326 IAC 12] [40 CFR 60.110b, Subpart Kb]

Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the 30,000 gallon asphalt cement storage tank with a vapor pressure of less than 15.0 kPa, is subject to 40 CFR Part 60.116b, paragraphs (a) through (c) which requires record keeping.

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

D.3.2 Record Keeping Requirements [40 CFR 60.110b, Subpart Kb]

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain permanent records at the source in accordance with (1) through (3) below:
 - (1) the dimension of the storage vessel;
 - (2) an analysis showing the capacity of the storage vessel; and
 - (3) the true vapor pressure of each VOC stored, indicating that the maximum true vapor pressure of VOC is less than 15.0 kPa.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Mar-Zane, Inc.
Source Address: 15215 River Avenue, Noblesville, Indiana 46060
Mailing Address: P.O. Box 1585, Zanesville, Ohio 43702-1585
FESOP No.: F057-18252-03300

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

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

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

Source Name: Mar-Zane, Inc.
Source Address: 15215 River Avenue, Noblesville, Indiana 46060
Mailing Address: P.O. Box 1585, Zanesville, Ohio 43702-1585
FESOP No.: F057-18252-03300

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

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

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: Mar-Zane, Inc.
Source Address: 15215 River Avenue, Noblesville, Indiana 46060
Mailing Address: P.O. Box 1585, Zanesville, Ohio 43702-1585
FESOP No.: F057-18252-03300
Facility: Aggregate dryer
Parameter: NO_x Emissions
Limit: The input of natural gas and natural gas equivalents to the aggregate dryer burner shall not exceed 1,025.26 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

Month	Natural Gas and equivalent usage (MMCF)	Natural Gas and equivalent usage (MMCF)	Natural Gas and equivalent usage (MMCF/year)
	This Month	Previous 11 Months	12 Month Total

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

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Mar-Zane, Inc.
 Source Address: 15215 River Avenue, Noblesville, Indiana 46060
 Mailing Address: P.O. Box 1585, Zanesville, Ohio 43702-1585
 FESOP No.: F057-18252-03300
 Facility: Aggregate dryer
 Parameter: SO₂ Emissions
 Limit: The input of re-refined waste oil and re-refined waste oil equivalents to the aggregate dryer shall be limited to 2,476,730 U.S. gallons per twelve (12) consecutive month period with compliance determined at the end of each month and based on re-refined waste oil having a maximum sulfur content of 0.50%.

YEAR: _____

Month	Re-refined waste oil and equivalent usage (U.S. Gallons)	Re-refined waste oil and equivalent usage (U.S. Gallons)	Re-refined waste oil and equivalent usage (U.S. Gallons/year)
	This Month	Previous 11 Months	12 Month Total

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

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

Attach a signed certification to complete this report.

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

Single Liquid Binder Solvent Quarterly Report

Source Name: Mar-Zane, Inc.
 Source Address: 15215 River Avenue, Noblesville, Indiana 46060
 Mailing Address: P.O. Box 1585, Zanesville, Ohio 43702-1585
 FESOP No.: F057-18252-03300
 Facility: Cold Mix Stockpile Mix
 Parameter: VOC Emissions

Limit: Cutback asphalt rapid cure liquid binder usage shall not exceed 86.03 tons of VOC solvent per twelve (12) consecutive month period. Cutback asphalt medium cure liquid binder usage shall not exceed 116.76 tons of VOC solvent per twelve (12) consecutive month period. Cutback asphalt slow cure liquid binder usage shall not exceed 326.92 tons of VOC solvent per twelve (12) consecutive month period. Compliance shall be determined at the end of each month.

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE BRANCH
 Multiple Liquid Binder Solvent Quarterly Report**

Source Name: Mar-Zane, Inc.
Source Address: 15215 River Avenue, Noblesville, Indiana 46060
Mailing Address: P.O. Box 1585, Zanesville, Ohio 43702-1585
FESOP No.: F057-18252-03300
Facility: Cold-mix asphalt storage piles
Parameter: VOC
Limit: 78.93 tons per twelve consecutive month period, with compliance determined at the end of each month.
Year:

Month	Type of Liquid binder	Solvent Usage This Month (tons)	Divisor	VOC emitted This Month (tons) for each solvent	VOC emitted This Month (tons)	VOC emitted Previous 11 Months (tons)	This month + Previous 11 months =VOC emitted 12 Month Total(tons)
Month 1	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
Month 2	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				
Month 3	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	other asphalt		38				

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

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

Attach a signed certification to complete this report.

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

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

Source Name: Mar-Zane, Inc.
Source Address: 15215 River Avenue, Noblesville, Indiana 46060
Mailing Address: P.O. Box 1585, Zanesville, Ohio 43702-1585
FESOP No.: F057-18252-03300

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
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: _____

Attach a signed certification to complete this report.

**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 Background and Description

Source Name:	Mar-Zane, Inc.
Source Location:	15215 River Avenue, Noblesville, Indiana 46060
County:	Hamilton
SIC Code:	2951
Operation Permit No.:	F057-18252-03300
Operation Permit Issuance Date:	August 25, 2004
Significant Permit Revision No.:	057-21121-03300
Permit Reviewer:	Linda Quigley/EVP

The Office of Air Quality (OAQ) has reviewed a FESOP significant permit revision application from Mar-Zane, Inc. relating to the operation of a stationary hot batch mix and hot drum mix asphalt plant.

History

Mar-Zane, Inc. was issued a FESOP renewal on August 24, 2004. A request for a revision to the FESOP was received on April 14, 2005. Mar-Zane, Inc. requests to use re-refined waste oil for combustion and approval to operate a hot asphalt drum mixer. The source is currently permitted to operate a hot asphalt batch mixer. Mar-Zane states that the batch mixer will remain on site and will only be used on occasion. The drum mixer and batch mixer cannot be operated at the same time because both mixers use the same burner. In addition, Mar-Zane submitted information on other activities not previously identified in the FESOP renewal.

New Emission Units and Pollution Control Equipment

The revision request consists of the following new emission units and pollution control devices:

- (a) One (1) hot asphalt drum mixer capable of processing 400 tons per hour of raw material, equipped with one (1) 150 million British thermal units per hour (MMBtu/hr) natural gas fired burner using No. 2 distillate fuel oil and re-refined waste fuel oil as backup fuels, controlling particulate emissions with one (1) baghouse, exhausting at one (1) stack, identified as SV1, to be installed in 2005;
- (b) One (1) additional hot oil heater, rated at 2.0 million British thermal units per hour (MMBtu/hr), combusting natural gas and No. 2 fuel oil as backup, and exhausting at one (1) stack, to be installed in 2005;
- (c) Three (3) asphalt storage silos, identified as BS 1, BS 2 and BS 3, with a combined maximum throughput of 3,504,000 ton per year of asphalt, using no control, to be installed in 2005;
- (d) Three (3) liquid asphalt storage tanks installed in 1985, identified as TK1, TK2 and TK4, with maximum capacities of 21,374 gallons, 22,669 gallons, and 10,363 gallons, respectively;

- (e) One (1) liquid asphalt storage tank installed in 2004, identified as TK3, with a maximum capacity of 28,499 gallons.

The revision also includes changes to emission calculations for paved and unpaved roads.

Existing Approvals

The source has been operating under the renewal FESOP 057-18252-03300 issued on August 24, 2004. No other approvals have been issued since the FESOP renewal.

All conditions from previous approval were incorporated into this FESOP revision.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

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

An administratively complete FESOP revision application for the purposes of this review was received on April 14, 2005. Additional information was received on May 13, 2005.

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

Emission Calculations

See Appendix A of this document for detailed emission calculations, pages one (1) through fourteen (14).

Potential To Emit of Modification

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

Pollutant	Potential To Emit (tons/year)
PM	Greater than 250
PM-10	Greater than 100
SO ₂	Greater than 250
VOC	Less than 100
CO	Less than 100
NO _x	Less than 100
HAPs	Less than 10

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM, PM10 and SO₂ is each greater than twenty-five (25) tons per year. Therefore, pursuant to 326 IAC 2-8-11.1(f)(1), a significant permit revision is required.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP.

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	Total HAPs
⁽¹⁾ Aggregate Dryer (Drum Mix) (senerio a)	⁽²⁾ 50.54	⁽³⁾ 83.11	⁽⁴⁾ 91.02	18.13	43.61	⁽⁴⁾ 97.40	15.27
⁽¹⁾ Aggregate Dryer (Batch Mix) (senerio b)	⁽²⁾ 50.54	⁽³⁾ 83.11	⁽⁴⁾ 91.02	16.21	43.61	⁽⁴⁾ 97.40	13.35
Cold Mix Storage	-	-	-	⁽³⁾ 78.93	-	-	-
Paved and Unpaved Roads	53.42	13.62	-	-	-	-	-
Conveying and Handling	4.48	2.12	-	-	-	-	-
Storage Piles	1.18	0.41	-	-	-	-	-
Storage Silos (filling/load out)	0.50	0.50	-	2.80	0.40	-	-
Hot Oil Heaters	0.25	0.13	8.89	0.10	1.47	2.50	-
Total Emissions	110.25	99.90	99.90	99.90	44.75	99.90	15.27

- (1) The drum mixer is the primary mixer. The Batch mixer will be used on occasion, however the drum mixer and batch mixer cannot be operated at the same time. Emissions listed in **bold** were used as worst case scenerio to establish permit limits. Cold mix storage VOC limitation has been established by using the PTE of VOC from the batch mix operation. Therefore, the same limitations will apply regardless of which mixing operation is being used. In addition, limitations were added to the permit for each type of cold mix (slow cure, medium cure, and fast cure).
- (2) Maximum allowable PM emissions pursuant to 40 CFR Part 60.90, Subpart I.
- (3) Maximum allowable PM10 and VOC emissions in order to render 326 IAC 2-7 (Part 70) and 326 IAC 2-3 (Emission Offset) not applicable.
- (4) Maximum allowable SO₂ and NO_x emissions in order to render 326 IAC 2-7 (Part 70) not applicable.

County Attainment Status

The source is located in Hamilton County.

Pollutant	Status
PM2.5	Basic nonattainment
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Basic nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Hamilton County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) U.S.EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Hamilton County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of non-attainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM10 emissions as surrogate for PM2.5 emissions pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability for the source section.
- (c) Hamilton County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

Source Status

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

Pollutant	Emissions (tons/yr)
PM	< 250
PM-10	< 100
SO ₂	< 100
VOC	< 100
CO	< 100
NO _x	< 100
Single HAP	< 10
Combination HAPs	< 25

This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater. This source is not in one of the 28 listed source categories.

Federal Rule Applicability

- (a) This source is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90, Subpart I) because it meets the definition of a hot mix asphalt facility pursuant to the rule and was constructed after the June 11, 1973 rule applicability date. This rule limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf) and also limits visible emissions to 20% opacity. The source will comply with this rule by using a baghouse to limit particulate matter emissions to less than 0.04 gr/dscf (see Appendix A, page 14 of 14, for detailed calculations).

- (b) The two (2) liquid asphalt storage tanks installed in 1985, identified as TK1 and TK2, with maximum capacities of 21,374 gallons and 22,669 gallons, respectively, and the one (1) 28,499 gallon liquid asphalt storage tank installed in 2004, identified as TK3, are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb) (Standards of Performance for Volatile Organic Liquid Storage Vessels). Although they were constructed after July 23, 1984, and have a storage capacity greater than 75 cubic meters each, the tanks have a storage capacity greater than 75 cubic meters but less than 151 cubic meters each, and the liquid asphalt stored in the tanks have a maximum true vapor pressure of less than 15.0 kPa each. Therefore, pursuant to 40 CFR 60.110b(b), as amended in the October 15, 2003 Federal Register, these tanks are not subject to this rule.
- (c) The one (1) 10,363 gallon liquid asphalt storage tank installed in 1985, identified as TK4 is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) (Standards of Performance for Volatile Organic Liquid Storage Vessels) since it has a storage capacity of less than 75 cubic meters.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in the permit for this source.

State Rule Applicability – Entire Source

326 IAC 2-3 Emission Offset

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

On April 15, 2004, the United States Environmental Protection Agency (U.S. EPA) named 23 Indiana counties and one partial county nonattainment for the new 8-hour ozone standard. The designations became effective on June 15, 2004. Hamilton County has been designated as nonattainment for the 8-hour ozone standard. A major source in a nonattainment area is a source that emits or has the potential to emit 100 tpy of any regulated pollutant. Mar-Zane, Inc. has a limited potential to emit of VOC and NO_x below 100 tpy, (see 326 IAC 2-8-4 below). Therefore, 326 IAC 2-3 does not apply.

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

This source is not subject to the requirements of this rule. As shown in the Potential to Emit After issuance Table on page 3 above, the allowable emissions of SO₂, NO_x and PM₁₀, (see 326 IAC 2-8-4 below), are less than 100 tons per year after application of all federally enforceable emission limits. The uncontrolled potential to emit of CO is less than 100 tons per year. PM emissions from the aggregate dryer shall be limited to 0.108 pound PM per ton of asphalt mix, based on a maximum throughput of 400 tons of asphalt mix per hour. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM emissions from the aggregate mixing and drying operation to 189.28 tons per year for a source-wide total potential to emit of less than 250 tons per year. The source will comply with the PM emission limit by utilizing a baghouse for controlling PM emissions to less than 43.21 pounds per hour from the aggregate dryer. This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2. Therefore, 326 IAC 2-2 does not apply.

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

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any source that constructs or reconstructs a major source of HAPs, which has the potential to emit (PTE) 10 tons per year of any single HAP or 25 tons per year of any combination of HAPs, must control emissions from that source using technologies consistent with the Maximum Achievable Control Technology (MACT). This source, including this revision, has potential single HAP and total HAP emissions of less than 10 and 25 tons per year, respectively, therefore, this rule does not apply.

326 IAC 2-8-4 (FESOP)

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

- (a) The usage of re-refined waste fuel oil with a limited sulfur content of 0.50% and re-refined waste fuel oil equivalents in the 150 MMBtu/hr aggregate dryer burner shall not exceed 2,476,730 U.S. gallons per twelve (12) consecutive month period with compliance determined at the end of each month, so that SO₂ emissions are limited to less than 100 tons per year.
- (b) The usage of natural gas and natural gas equivalents in the 150 MMBtu/hr burner shall be limited to 1,025.26 million (MM) cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month, so that NO_x emissions are limited below 100 tons per year.
- (c) PM-10 emissions from the aggregate dryer shall be limited to 0.047 pound PM-10 per ton of asphalt mix, based on a maximum throughput of 400 tons of asphalt mix per hour. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM-10 emissions from the aggregate mixing and drying operation to 83.11 tons per year for a source-wide total potential to emit of less than 100 tons per year. The source will comply with the PM-10 emission limit by utilizing a baghouse for controlling PM-10 emissions to less than 18.97 pounds per hour from the aggregate dryer.
- (d) The VOC solvent usage as cut back diluent in the liquid binder used in cold mix asphalt production shall be limited such that VOC emissions shall not exceed 78.93 tons per twelve (12) consecutive months with compliance determined at the end of each month. This shall be achieved by limiting the total VOC solvent usage of any one selected binder to not exceed the stated limit above for that binder during the last twelve (12) months. When more than one binder is used, the formula in paragraph (4) below must be applied so that the total VOC emitted does not exceed 78.93 tons per twelve (12) consecutive month period.

Liquid binder definitions:

- (1) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.
- (2) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.
- (3) Cut back asphalt slow cure, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.

The liquid binder in cold mix asphalt production shall be limited as follows:

- (1) Cutback asphalt rapid cure liquid binder usage shall not exceed 86.03 tons of VOC solvent per twelve (12) consecutive month period with compliance determined at the end of each month.

- (2) Cutback asphalt medium cure liquid binder usage shall not exceed 116.76 tons of VOC solvent per twelve (12) consecutive month period with compliance determined at the end of each month.
- (3) Cutback asphalt slow cure liquid binder usage shall not exceed 326.92 tons of VOC solvent per twelve (12) consecutive month period with compliance determined at the end of each month.
- (4) The VOC solvent allotments in paragraph (1) through (3) above shall be adjusted when more than one type of binder is used per twelve (12) consecutive month period. 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 ratio listed in the table that follows.

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	

The equivalent total tons of VOC of the combined liquid binders shall be less than 78.93 tons per twelve (12) consecutive month period.

These limits will render the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset), not applicable.

No other State Rules – Entire Source have been affected as a result of this revision.

State Rule Applicability – Individual Facilities

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

This rule applies to all facilities with a potential to emit greater than twenty-five (25) tons per year or ten (10) pounds per hour of sulfur dioxide. The 150 MMBtu/hr dryer burner burning distillate oil and re-refined waste oil is subject to the requirements of this rule because the potential sulfur dioxide emissions from this facility is greater than twenty-five (25) tons per year. Therefore, pursuant to this rule the sulfur dioxide emissions from the 150 MMBtu/hr dryer burner burning No. 2 distillate oil shall be limited to 0.5 lb/MMBtu heat input. This equates to a fuel oil sulfur content limit of 0.5%. Therefore, the sulfur content of the No. 2 fuel oil must be less than or equal to 0.5% in order to comply with this rule (See Appendix A, Page 14 of 14 for detailed calculations). The source will comply with this rule by using No. 2 distillate oil with a sulfur content of 0.5% or less in the burner. The sulfur dioxide emissions from the 150 MMBtu/hr dryer burner burning re-refined waste oil shall be limited to 1.6 lb/MMBtu heat input. This equates to a fuel oil sulfur content limit of 1.5%. Therefore, the sulfur content of the re-refined waste oil must be less than or equal to 1.5% in order to comply with this rule (See Appendix A, Page 14 of 14 for detailed calculations). The source will comply with this rule by using re-refined waste oil with a sulfur content of 0.5% or less in the burner.

The two (2) 2.0 MMBtu/hr hot oil heaters are not subject to the requirements of this rule because potential SO₂ emissions from each of these units is less than 25 tons per year.

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

This source is subject to 326 IAC 7-2-1 (Reporting Requirements) because it has a potential to emit greater than twenty-five (25) tons per year of sulfur dioxide. This rule requires the source to submit to the Office of Air Quality upon request records of sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates based on a calendar-month average.

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

The storage tanks at this source are not subject to 326 IAC 8-4-3 because the tanks have storage capacities less than 39,000 gallons each.

329 IAC 13-8 (Used Oil Requirements)

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

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

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

No other State Rules – Individual Facilities have been affected as a result of this revision.

Testing Requirements

Within sixty (60) days of achieving maximum production rate but no later than one hundred and eighty (180) days after initial startup of the hot asphalt drum mixer, the Permittee shall conduct performance tests in order to demonstrate compliance with Conditions D.1.2, D.1.3, and D.1.4 of the permit. The Permittee shall perform PM, PM-10 and Opacity testing utilizing methods as approved by the Commissioner.

There will be no change to the testing requirements for the hot asphalt batch mixer.

Compliance Requirements

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

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

There is no change to the compliance monitoring requirements applicable to this source as a result of this revision.

Proposed Changes

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:

Scenario A

- (a) One (1) stationary hot asphalt batch mixer and aggregate dryer, with a maximum capacity of 400 tons per hour, equipped with one (1) natural gas-fired burner with a rated heat input of 150 million British thermal units per hour (MMBtu/hr), using No.2 fuel oil **and re-refined waste fuel oil** as backup fuels, utilizing one (1) baghouse for particulate matter (PM) emissions control, and exhausting through one (1) stack (Stack ID: SV1);

Scenario B

- (a) **One (1) hot asphalt drum mixer capable of processing 400 tons per hour of raw material, equipped with one (1) 150 million British thermal units per hour (MMBtu/hr), natural gas fired burner using No. 2 distillate fuel oil and re-refined waste fuel oil as backup fuels, controlling particulate emissions with one (1) baghouse, exhausting at one (1) stack, identified as SV1, to be installed in 2005;**
The batch mixer and the drum mixer cannot physically operate at the same time.
- (b) **Three (3) asphalt storage silos, identified as BS 1, BS 2 and BS 3, with a combined maximum throughput of 3,504,000 ton per year of asphalt, using no control, to be installed in 2005;**
- (c) **Three (3) liquid asphalt storage tanks installed in 1985, identified as TK1, TK2 and TK4, with maximum capacities of 21,374 gallons, 22,669 gallons, and 10,363 gallons, respectively, to be installed in 2005;**
- (d) **One (1) liquid asphalt storage tank installed in 2004, identified as TK3, with a maximum capacity of 28,499 gallons;**
- ~~(b)~~(e) cold mix asphalt storage piles; and
- ~~(e)~~(f) one (1) asphalt cement storage tank with a maximum capacity of 30,000 gallons.

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

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

- (a) ~~One (1)~~ **Two (2)** hot oil heaters **each** rated at 2.0 MMBtu per hour combusting natural gas and No.2 fuel oil as a backup, and exhausting through one(1) stack;
- (b) One (1) portable No. 2 distillate fuel oil storage tank with a maximum storage capacity of 10,000 gallons;
- (c) One (1) portable emulsion storage tank with a maximum storage capacity of 10,000 gallons;
- (d) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (e) Paved and unpaved roads and parking lots with public access;
- (f) Truck and conveyor transfer operations; and
- (g) Aggregate stockpiles and vehicular trafficking.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

Scenario A

- (a) One (1) stationary hot asphalt batch mixer and aggregate dryer, with a maximum capacity of 400 tons per hour, equipped with one (1) natural gas-fired burner with a rated heat input of 150 million British thermal units per hour (MMBtu/hr), using No.2 fuel oil **and re-refined waste fuel oil** as backup fuels, utilizing one (1) baghouse for particulate matter (PM) emissions control, and exhausting through one (1) stack (Stack ID: SV1);

Scenario B

- (a) **One (1) hot asphalt drum mixer capable of processing 400 tons per hour of raw material, equipped with one (1) 150 million British thermal units per hour (MMBtu/hr), natural gas fired burner using No. 2 distillate fuel oil and re-refined waste fuel oil as backup fuels, controlling particulate emissions with one (1) baghouse, exhausting at one (1) stack, identified as SV1, to be installed in 2005;**

The batch mixer and the drum mixer cannot physically operate at the same time.

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

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

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

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

D.1.2 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.90, Subpart I] ~~[326 IAC 2-2]~~

- (a) Pursuant to 326 IAC 12 and 40 CFR Part 60.90, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, the particulate matter emissions from the mixing and drying operations shall be limited to 0.04 grains per dry standard cubic foot (gr/dscf). ~~This is equivalent to a particulate matter emission rate of 12.35 pounds per hour and 54.09 tons per year respectively. Compliance with this limit unless 326 IAC 2-2.~~
- (b) **Pursuant to 326 IAC 12 and 40 CFR Part 60.92, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, the mixing and drying operations shall not discharge or cause the discharge into the atmosphere any gases which exhibit 20% opacity or greater.**

D.1.3 Particulate Matter 10 Microns (PM₁₀) [326 IAC 2-8-4][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4, ~~particulate matter 10 microns emissions from the aggregate mixing and drying operation shall not exceed 21.9 pounds per hour, including both filterable and condensable fraction which is equivalent to 95.92 tons per year.~~ **PM-10 emissions from the aggregate dryer shall be limited to 0.047 pound PM-10 per ton of asphalt mix, based on a maximum throughput of 400 tons of asphalt mix per hour. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM-10 emissions from the aggregate mixing and drying operation to 83.11 tons per year for a source-wide total potential to emit of less than 100 tons per year. Compliance with this limit renders 326 IAC 2-7 and 326 IAC 2-2 not applicable.**

~~D.1.4 Opacity [326 IAC 12] [40 CFR 60.90, Subpart I]~~

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

D.1.4 Particulate Matter (PM) [326 IAC 2-2]

PM emissions from the aggregate dryer shall be limited to 0.108 pound PM per ton of asphalt mix, based on a maximum throughput of 400 tons of asphalt mix per hour. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM emissions from the aggregate mixing and drying operation to 189.28 tons per year for a source-wide total potential to emit of less than 250 tons per year. Compliance with this limit shall render the requirements of 326 IAC 2-2 not applicable.

D.1.5 Sulfur Dioxide (SO₂) [326 IAC 7-1.1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 150.0 million Btu per hour burner for the **batch mix and drum mix** aggregate dryer shall be limited to: ~~0.5 pounds per MMBtu heat input or a sulfur content of less than or equal to 0.50% when using distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.~~

- (a) 0.5 pounds per million Btu heat input or a sulfur content of less than or equal to 0.5% when using distillate oil, and**
- (b) 1.6 pounds per million Btu heat input when using re-refined waste oil. Compliance with this limit shall be achieved by limiting the sulfur content of the re-refined waste oil to 0.5% by weight or less.**

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

D.1.6 SO₂ Emissions - Fuel Re-refined Waste Oil usage [326 IAC 2-8-4] [326 IAC 2-2]

- (a) The input of No. 2 fuel oil and No. 2 fuel oil re-refined waste oil and re-refined waste oil equivalents to the aggregate dryer burner shall be limited to ~~2,663,662~~ **2,476,730** U.S. gallons per twelve (12) consecutive months ~~period~~ with compliance determined at the end of each month and based on ~~No. 2 fuel re-refined waste oil~~ having a maximum sulfur content of 0.50%.**
- (b) Every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 966.0 gallons of re-refined waste oil based on SO₂ emissions, such that the total gallons of re-refined waste oil and re-refined waste oil equivalent input does not exceed the limit specified.**
- (b)(c) For purposes of determining compliance, when natural gas is burned, the following equivalency calculations shall be performed:**

- (1) every MMCF of natural gas burned is equivalent to 8.4 gallons of No.2 fuel oil burned.
- (2) **every MMCF of natural gas burned is equivalent to 8.16 gallons of waste oil burned.**

Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 will not apply.

D.1.7 NO_x Emissions - Natural Gas Usage [326 IAC 2-8-4][326 IAC 2-3]

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

- (a) The input of natural gas and natural gas equivalents to the aggregate dryer burner shall not exceed ~~698.24~~ **1,025.26** million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) For purposes of determining compliance, when No.2 fuel oil is burned, the following equivalency calculation shall be performed: every 1000 gallons (1 kgal) of No.2 fuel oil burned is equivalent to ~~0.0744~~ **0.3737** MMCF of natural gas burned;
- (c) **For the purposes of determining compliance, when waste oil is burned, the following equivalency calculation shall be performed: every 1000 gallons (1 kgal) of waste oil burned is equivalent to 0.3868 MMCF of natural gas burned.**

Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.1.9 Testing Requirements [326 IAC 2-8-5(1)]

- (a) During the period between 18 and 24 months after issuance of this permit, in order to demonstrate compliance with Conditions ~~D.1.1, D.1.2, and D.1.3~~ **and D.1.4, for the batch mix operation**, the Permittee shall perform PM, ~~and~~ PM₁₀, **and Opacity** testing for aggregate mixing and drying operations utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensible PM₁₀. Testing shall be conducted in accordance with Section C – Performance Testing.
- (b) **Within 60 days of achieving the maximum production rate but no later than 180 days after the start up of the drum mixer, in order to demonstrate compliance with Conditions D.1.2, D.1.3 and D.1.4, for the drum mix operation, the Permittee shall perform PM, PM10, and Opacity testing for the aggregate mixing and drying operations utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensible PM₁₀. Testing shall be conducted in accordance with Section C – Performance Testing.**

D.1.10 Used Oil Requirements [329 IAC 13-8]

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

- (1) **Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),**
 - (2) **Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and**
 - (3) **Maintain records pursuant to 329 IAC 13-8-6 (Tracking).**
- (b) **The waste oil burned in the dryer/mixer burner shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). The burning of mixtures of used oil and hazardous waste that is regulated by 329 IAC 3.1 is prohibited at this source.**

~~D.1.10~~**D.1.11 Sulfur Dioxide Emissions and Sulfur Content**

Compliance with Conditions ~~D.1.4~~ **D.1.5** and D.1.6 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the ~~boiler~~ **dryer/mixer burner** using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) 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.1.12~~**D.1.13 Visible Emissions Notations**

- (a) Once per ~~shift~~ **day** visible emission notations of the conveying, material transfer points, mixing and drying operations (aggregate dryer) baghouse stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

D.1.13D.1.14 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer, at least once per ~~shift~~ **day** when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of ~~3.0 and 6.0~~ **1.0 and 8.0** inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

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

D.1.16D.1.17 Record Keeping Requirements

- (a) To document compliance with Conditions ~~D.1.4~~ **D.1.5** and D.1.6, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limit established in Conditions ~~D.1.4~~ **D.1.5** and D.1.6.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period. The natural gas fired boiler certification does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1); and

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

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

To document compliance with Condition D.1.6, the Permittee shall maintain records in accordance with (1) through (3) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual ~~No. 2 distillate fuel~~ **waste oil usage and actual waste oil equivalence usage** and ~~natural gas equivalence usage~~ per month since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

(b) To document compliance with Condition ~~D.1.5~~ **D.1.7**, the Permittee shall maintain records in accordance with (1) through (3) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual natural gas **usage and actual natural gas equivalence usage** and ~~No. 2 distillate fuel~~ ~~oil equivalence usage~~ per month since last compliance determination period and equivalent NOx emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period.

(c) To document compliance with Condition ~~D.1.7~~ **D.1.8**, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

(d) To document compliance with Condition ~~D.1.11~~ **D.1.13**, the Permittee shall maintain records of daily visible emission notations of the aggregate dryer baghouse stack exhaust.

(e) To document compliance with Condition ~~D.1.12~~ **D.1.14**, the Permittee shall maintain the records of the pressure drop once per ~~shift~~ **day**.

(f) To document compliance with Condition ~~D.1.13~~ **D.1.15**, the Permittee shall maintain records of the results of the inspections required under Condition ~~D.1.13~~ **D.1.15**.

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

~~D.1.17~~ **D.1.18** Reporting Requirements

A quarterly summary of the information to document compliance with Conditions ~~D.1.5~~ and **D.1.6 and D.1.7** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

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

cold mix asphalt storage piles.

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

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

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4] ~~[326 IAC 2-1.1-5]~~ [326 IAC 2-3]

~~The throughput of cold mix (stockpile mix) asphalt shall be limited to 4,561 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, based on a maximum 7.0% of cutback asphalt or emulsion in total cold mix asphalt produced with a maximum oil distillate content of 35.0% in cutback asphalt. Compliance with this limit shall render 326 IAC 2-7 and 326 IAC 2-1.1-5 not applicable.~~

The VOC solvent usage as cut back diluent in the liquid binder used in cold mix asphalt production shall be limited such that VOC emissions shall not exceed 78.91 tons per twelve (12) consecutive months with compliance determined at the end of each month. This shall be achieved by limiting the total VOC solvent usage of any one selected binder to not exceed the stated limit above for that binder during the last twelve (12) months. When more than one binder is used, the formula in paragraph (b)(4) below must be applied so that the total VOC emitted does not exceed 78.93 tons per twelve (12) consecutive month period.

(a) Liquid binder definitions:

- (1) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.
- (2) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.
- (3) Cut back asphalt slow cure, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.

(b) The liquid binder in cold mix asphalt production shall be limited as follows:

- (1) Cutback asphalt rapid cure liquid binder usage shall not exceed 86.03 tons of VOC solvent per twelve (12) consecutive month period with compliance determined at the end of each month.
- (2) Cutback asphalt medium cure liquid binder usage shall not exceed 116.76 tons of VOC solvent per twelve (12) consecutive month period with compliance determined at the end of each month.

- (3) **Cutback asphalt slow cure liquid binder usage shall not exceed 326.92 tons of VOC solvent per twelve (12) consecutive month period with compliance determined at the end of each month.**
- (4) **The VOC solvent allotments in paragraph (b)(1) through (b)(3) above shall be adjusted when more than one type of binder is used per twelve (12) month consecutive period. 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 ratio listed in the table that follows.**

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	

The equivalent total tons of VOC of the combined liquid binders shall be less than 78.93 tons per twelve (12) consecutive month period.

Reporting forms have been revised to reflect the above changes.

Section A.1 has been updated as follows:

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

The Permittee owns and operates stationary asphalt paving mixture and block manufacturing plant.

Authorized individual:	Vice President of Environmental Affairs
Source Address:	15215 River Avenue, Noblesville, Indiana 46060
Mailing Address:	P. O. Box 1585, Zanesville, Ohio 43702-1585
General Source Phone:	(740) 453-0721
SIC Code:	2951
Source Location Status:	Hamilton
	Attainment for all criteria pollutants
	Basic nonattainment for Ozone under 8-hr Standard
	Nonattainment for PM2.5 Standard
	Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP)
	Minor Source, under PSD and Emission Offset NSR
	Non-attainment;
	Minor Source, Section 112 of the Clean Air Act

In addition to the above changes, IDEM, OAQ has decided to add the following condition to Section B:

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.

Conclusion

The operation of this stationary hot batch mix and hot drum mix asphalt plant shall be subject to the conditions of the attached **Significant Permit Revision 057-21121-03300**.

Company Name: Mar-Zane, Inc.
 Plant Location: 15215 River Avenue, Noblesville, Indiana 46060
 County: Hamilton
 Permit Reviewer: Linda Quigley/EVP

**** aggregate dryer burner****

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1 and 1.4-2.

Criteria Pollutant: $\frac{150 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{1000 \text{ Btu/cf} * 2,000 \text{ lb/ton}}$ * Ef (lb/MMcf) = (ton/yr)

P M:	1.9 lb/MMcf =	1.25 ton/yr
P M-10:	7.6 lb/MMcf =	4.99 ton/yr
S O 2:	0.6 lb/MMcf =	0.39 ton/yr
N O x:	190.0 lb/MMcf =	124.83 ton/yr
V O C:	5.5 lb/MMcf =	3.61 ton/yr
C O:	84.0 lb/MMcf =	55.19 ton/yr

The following calculations determine the amount of emissions created by the combustion of re-refined waste oil

@ 0.50 % sulfur, and

@ 1.08 % ash, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.11 - Waste Oil Combustion, Tables 1.11-1, 1.11-2, , 1.11-3, and 1.11-4.

Criteria Pollutant: $\frac{150 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{140,000 \text{ Btu/gal} * 2,000 \text{ lb/ton}}$ * Ef (lb/1,000 gal) = (ton/yr)

P M:	68.8 lb/1000 gal =	322.87 ton/yr
P M-10:	51.0 lb/1000 gal =	239.34 ton/yr
S O 2:	73.5 lb/1000 gal =	344.93 ton/yr
N O x:	19.0 lb/1000 gal =	89.16 ton/yr
V O C:	1.00 lb/1000 gal =	4.69 ton/yr
C O:	5.0 lb/1000 gal =	23.46 ton/yr

The following calculations determine the amount of emissions created by the combustion of No. 2 distillate fuel oil

@ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and

US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-5.

Criteria Pollutant: $\frac{150 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{139,000 \text{ Btu/gal} * 2,000 \text{ lb/ton}}$ * Ef (lb/1,000 gal) = (ton/yr)

P M:	2.0 lb/1000 gal =	9.45 ton/yr
P M-10:	1.0 lb/1000 gal =	4.73 ton/yr
S O 2:	71.0 lb/1000 gal =	335.59 ton/yr
N O x:	20.0 lb/1000 gal =	94.53 ton/yr
V O C:	0.20 lb/1000 gal =	0.95 ton/yr
C O:	5.0 lb/1000 gal =	23.63 ton/yr

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

Criteria Pollutant:		Worst Case Fuel
P M:	322.87 ton/yr	Re-refined Waste Oil
P M-10:	239.34 ton/yr	Re-refined Waste Oil
S O 2:	344.93 ton/yr	Re-refined Waste Oil
N O x:	124.83 ton/yr	Natural Gas
V O C:	4.69 ton/yr	Re-refined Waste Oil
C O:	55.19 ton/yr	Natural Gas

****hot oil heaters****

The following calculations determine the amount of emissions created by natural gas combustion, from the hot oil heater based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant:	$\frac{4 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{1,000 \text{ Btu/cf} * 2,000 \text{ lb/ton}}$	* Ef (lb/MMcf) = (ton/yr)
P M:	1.9 lb/MMcf =	0.03 ton/yr
P M-10:	7.6 lb/MMcf =	0.13 ton/yr
S O 2:	0.6 lb/MMcf =	0.01 ton/yr
N O x:	100.0 lb/MMcf =	1.75 ton/yr
V O C:	5.5 lb/MMcf =	0.10 ton/yr
C O:	84.0 lb/MMcf =	1.47 ton/yr

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.5 % sulfur, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

Criteria Pollutant:	$\frac{4 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{140,000 \text{ Btu/gal} * 2,000 \text{ lb/ton}}$	* Ef (lb/1,000 gal) = (ton/yr)
P M:	2.0 lb/1000 gal =	0.25 ton/yr
P M-10:	1.0 lb/1000 gal =	0.13 ton/yr
S O 2:	71.0 lb/1000 gal =	8.89 ton/yr
N O x:	20.0 lb/1000 gal =	2.50 ton/yr
V O C:	0.20 lb/1000 gal =	0.03 ton/yr
C O:	5.0 lb/1000 gal =	0.63 ton/yr

The maximum potential emissions from the hot oil heater due to fuel combustion are the following:

Criteria Pollutant:		Worst Case Fuel
P M:	0.25 ton/yr	No. 2 Fuel Oil
P M-10:	0.13 ton/yr	Natural Gas
S O 2:	8.89 ton/yr	No. 2 Fuel Oil
N O x:	2.50 ton/yr	No. 2 Fuel Oil
V O C:	0.10 ton/yr	Natural Gas
C O:	1.47 ton/yr	Natural Gas

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

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-5 and 11.1-10 for a drum mix dryer which has the capability of combusting either fuel oil or natural gas:

Pollutant:	Ef	lb/ton x	400	ton/hr x	8,760	hr/yr
			2,000	lb/ton		
Criteria Pollutant:						
	P M:	28	lb/ton =	49,056.00	ton/yr	
	P M-10:	6.4	lb/ton =	11,212.80	ton/yr	
	VOC:	0.008718	lb/ton =	15.27	ton/yr	

The VOC emission factor for aggregate drying includes HAP emissions which are assumed to be VOC.

**** aggregate drying: batch-mix plant ****

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-1, 11.1-5 and 11.1-6 for a batch mix dryer which has the capability of combusting either fuel oil or natural gas:

Pollutant:	Ef	lb/ton x	400	ton/hr x	8,760	hr/yr
			2,000	lb/ton		
Criteria Pollutant:						
	P M:	32	lb/ton =	56,064.00	ton/yr	
	P M-10:	4.5	lb/ton =	7,884.00	ton/yr	
	V O C:	0.008	lb/ton =	13.35	ton/yr	

The VOC emission factor for aggregate drying includes organic HAP emissions which are assumed to be VOC.

**** silo filling and load out ****

The following calculation determines the amount of emissions created by silo filling and load out, based on 8,760 hours of operation and AP-42, Table 11.1-14.

A common term for all equations is:

$$(-V)e^{((0.0251)(T+460)-20.43)}$$

Where: V = asphalt volatility (default = -0.05)
T = hot mix asphalt temperature (default = 325F)

$$(0.05)e^{((0.0251)(785) - 20.43)} = (0.05)(0.48) = 0.024$$

The PM emission factor for filling operations is:

$$EF = 0.000332 + (0.00105)(0.024) = 0.000357 \text{ lb/ton}$$

$$\text{Potential silo filling PM emissions} = (3,504,000 \text{ tpy}) * (0.000357 \text{ lb/ton}) / (2000 \text{ lb/ton}) = \mathbf{0.6 \text{ tpy}}$$

The TOC emission factor for filling operations is:

$$\begin{aligned} \text{EF} &= (0.0504)(0.024) = 0.00121 \text{ lb/ton} \\ \text{Potential silo filling TOC emissions} &= (3,504,000 \text{ tpy}) * (0.00121 \text{ lb/ton}) / (2000 \text{ lb/ton}) = \mathbf{2.1 \text{ tpy}} \end{aligned}$$

The CO emission factor for silo filling operations is:

$$\begin{aligned} \text{EF} &= (0.00488)(0.024) = 0.000117 \\ \text{Potential silo filling CO emissions} &= (3,504,000 \text{ tpy}) * (0.000117 \text{ lb/ton}) / (2000 \text{ lb/ton}) = \mathbf{0.2 \text{ tpy}} \end{aligned}$$

The PM silo load out emission factor is:

$$\begin{aligned} \text{EF} &= (0.000181) + (0.00141)(0.024) = 0.000215 \text{ lb/ton} \\ \text{Load out potential PM emissions} &= (3,504,000 \text{ tpy}) * (0.000215 \text{ lb/ton}) / (2000 \text{ lb/ton}) = \mathbf{0.4 \text{ tpy}} \end{aligned}$$

The TOC silo load out emission factor is:

$$\begin{aligned} \text{EF} &= (0.0172)(0.024) = 0.000413 \text{ lb/ton} \\ \text{Load out potential TOC emissions} &= (3,504,000 \text{ tpy}) * (0.000413 \text{ lb/ton}) / (2000 \text{ lb/ton}) = \mathbf{0.7 \text{ tpy}} \end{aligned}$$

The CO silo load out emission factor is:

$$\begin{aligned} \text{EF} &= (0.00558)(0.024) = 0.000134 \text{ lb/ton} \\ \text{Load out potential CO emissions} &= (3,504,000 \text{ tpy}) * (0.000134 \text{ lb/ton}) / (2000 \text{ lb/ton}) = \mathbf{0.2 \text{ tpy}} \end{aligned}$$

The maximum potential emissions from the silo filling and load out operations are the following:

$$\begin{aligned} \text{PM} &= \mathbf{1.00 \text{ tpy}} \\ \text{TOC} &= \mathbf{2.80 \text{ tpy}} \\ \text{CO} &= \mathbf{0.40 \text{ tpy}} \end{aligned}$$

**** conveying / handling ****

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

PM-10 Emissions:

$$\begin{aligned} E &= k * (0.0032) * ((U/5)^{1.3}) / ((M/2)^{1.4}) \\ &= 2.42E-03 \text{ lb PM-10/ton} \\ &\quad 5.12E-03 \text{ lb PM/ton} \\ \text{where } k &= 0.35 \text{ (particle size multiplier for } <10\mu\text{m)} \\ &\quad 0.74 \text{ (particle size multiplier for } <30\mu\text{m)} \\ U &= 12 \text{ mph mean wind speed} \\ M &= 2.6 \text{ material moisture content (\%)} \end{aligned}$$

$$\frac{400 \text{ ton/hr} * 8,760 \text{ hrs/yr} * E_f \text{ (lb/ton of material)}}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

$$\begin{aligned} \text{Total PM 10 Emissions:} & \mathbf{4.24 \text{ tons/yr}} \\ \text{Total PM Emissions:} & \mathbf{8.97 \text{ tons/yr}} \end{aligned}$$

**** unpaved roads ****

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2.

Single Axle Dump

$$\begin{aligned}
 &3.25 \text{ trip/hour} * \\
 &0.05 \text{ mile/trip} * \\
 &2 \text{ (round trip) } x = \qquad \qquad \qquad 2847 \text{ miles per year}
 \end{aligned}$$

$$\begin{aligned}
 E_f &= k \cdot (s/12)^a \cdot (W/3)^b \\
 &= 1.40 \text{ lb PM-10/mile} \\
 &= 5.48 \text{ lb PM/mile} \\
 \text{where } k &= 1.5 \text{ (particle size multiplier for PM-10)} \\
 k &= 4.9 \text{ (particle size multiplier for PM)} \\
 s &= 4.8 \text{ mean \% silt content of unpaved roads} \\
 a &= 0.9 \text{ Constant for PM-10} \\
 a &= 0.7 \text{ Constant for PM} \\
 b &= 0.45 \text{ Constant for PM and PM-10} \\
 W &= 16 \text{ tons average vehicle weight}
 \end{aligned}$$

$$\text{PM-10: } \frac{1.40 \text{ lb/mi} \times 2847 \text{ mi/yr}}{2000 \text{ lb/ton}} = \mathbf{1.99 \text{ tons/yr}}$$

$$\text{PM: } \frac{5.48 \text{ lb/mi} \times 2847 \text{ mi/yr}}{2000 \text{ lb/ton}} = \mathbf{7.80 \text{ tons/yr}}$$

Tandem Axle Dump

$$\begin{aligned}
 &2.165 \text{ trip/hour} * \\
 &0.05 \text{ mile/trip} * \\
 &2 \text{ (round trip) } x = \qquad \qquad \qquad 1896.54 \text{ miles per year}
 \end{aligned}$$

$$\begin{aligned}
 E_f &= k \cdot (s/12)^a \cdot (W/3)^b \\
 &= 1.64 \text{ lb PM-10/mile} \\
 &= 6.45 \text{ lb PM/mile} \\
 \text{where } k &= 1.5 \text{ (particle size multiplier for PM-10)} \\
 k &= 4.9 \text{ (particle size multiplier for PM)} \\
 s &= 4.8 \text{ mean \% silt content of unpaved roads} \\
 a &= 0.9 \text{ Constant for PM-10} \\
 a &= 0.7 \text{ Constant for PM} \\
 b &= 0.45 \text{ Constant for PM and PM-10} \\
 W &= 23 \text{ tons average vehicle weight}
 \end{aligned}$$

$$\text{PM-10: } \frac{1.64 \text{ lb/mi} \times 1896.54 \text{ mi/yr}}{2000 \text{ lb/ton}} = \mathbf{1.56 \text{ tons/yr}}$$

$$\text{PM: } \frac{6.45 \text{ lb/mi} \times 1896.54 \text{ mi/yr}}{2000 \text{ lb/ton}} = \mathbf{6.12 \text{ tons/yr}}$$

Tri-axle Dump

1.625 trip/hour *
0.05 mile/trip *
2 (round trip) x = 1423.5 miles per year

$$E_f = k \cdot (s/12)^a \cdot (W/3)^b$$

$$= 1.88 \text{ lb PM-10/mile}$$

$$= 7.38 \text{ lb PM/mile}$$

where k = 1.5 (particle size multiplier for PM-10)
k= 4.9 (particle size multiplier for PM)
s= 4.8 mean % silt content of unpaved roads
a= 0.9 Constant for PM-10
a= 0.7 Constant for PM
b= 0.45 Constant for PM and PM-10
W= 31 tons average vehicle weight

$$\text{PM-10: } \frac{1.88 \text{ lb/mi} \times 1423.5 \text{ mi/yr}}{2000 \text{ lb/ton}} = 1.34 \text{ tons/yr}$$

$$\text{PM: } \frac{7.38 \text{ lb/mi} \times 1423.5 \text{ mi/yr}}{2000 \text{ lb/ton}} = 5.25 \text{ tons/yr}$$

Quad-axle Dump

1.3 trip/hour *
0.05 mile/trip *
2 (round trip) x = 1138.8 miles per year

$$E_f = k \cdot (s/12)^a \cdot (W/3)^b$$

$$= 2.06 \text{ lb PM-10/mile}$$

$$= 8.09 \text{ lb PM/mile}$$

where k = 1.5 (particle size multiplier for PM-10)
k= 4.9 (particle size multiplier for PM)
s= 4.8 mean % silt content of unpaved roads
a= 0.9 Constant for PM-10
a= 0.7 Constant for PM
b= 0.45 Constant for PM and PM-10
W= 38 tons average vehicle weight

$$\text{PM-10: } \frac{2.06 \text{ lb/mi} \times 1138.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 1.17 \text{ tons/yr}$$

$$\text{PM: } \frac{8.09 \text{ lb/mi} \times 1138.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 4.61 \text{ tons/yr}$$

Front End Loader

23.45 trip/hour *
0.05 mile/trip *
2 (round trip) x = 20542.2 miles per year

$$E_f = k \cdot (s/12)^a \cdot (W/3)^b$$

$$= 2.06 \text{ lb PM-10/mile}$$

$$= 8.09 \text{ lb PM/mile}$$

where k = 1.5 (particle size multiplier for PM-10)
k= 4.9 (particle size multiplier for PM)
s= 4.8 mean % silt content of unpaved roads
a= 0.9 Constant for PM-10
a= 0.7 Constant for PM
b= 0.45 Constant for PM and PM-10
W= 38 tons average vehicle weight

$$\text{PM-10: } \frac{2.06 \text{ lb/mi} \times 20542.2 \text{ mi/yr}}{2000 \text{ lb/ton}} = 21.17 \text{ tons/yr}$$

$$\text{PM: } \frac{8.09 \text{ lb/mi} \times 20542.2 \text{ mi/yr}}{2000 \text{ lb/ton}} = 83.07 \text{ tons/yr}$$

Total PM Emissions From Unpaved Roads = 106.85 tons/yr

Total PM-10 Emissions From Unpaved Roads = 27.23 tons/yr

**** storage ****

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

Material	Silt Content	Pile Size	Storage Capacity	P M Emissions	P M-10 Emissions
TP1-13	(wt %)	(acres)	(tons)	tons/yr	tons/yr
Sand	1.1	1.50	35,000	0.35	0.12
Gravel	0.9	1.50	35,000	0.29	0.10
Limestone	1.2	1.50	35,000	0.38	0.13
RAP	0.8	1.00	25,000	0.17	0.06
				1.18	0.41

Material	Silt Content	Pile Size	Storage Capacity	P M Emissions	P M-10 Emissions
DS1	(wt %)	(acres)	(tons)	tons/yr	tons/yr
Sand	1.1	1.50	35,000	0.35	0.12
Gravel	0.9	1.50	35,000	0.29	0.10
Limestone	1.2	1.50	35,000	0.38	0.13
RAP	0.8	1.00	25,000	0.17	0.06
				1.18	0.41
Total				2.37	0.83

Methodology: $PM\ Emissions = 1.7 * (wt\% \text{ silt content} / 1.5) * (365 - p) / 235 * (f / 15) * \text{pile size} / 2000 * 365$

Where:

- p = 125 days of rain greater than or equal to 0.01 inches
- f = 15 % of wind greater than or equal to 12 mph

PM-10 Emissions = 35% of PM emissions

****cold mix VOC storage emissions****

The following calculations determine the amount of VOC emissions created by the application of cutback asphalt containing a maximum of 20.0% of the liquid binder by weight of VOC solvent, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 4.5, Table 4.5-1.

VOC Emission Factor = 0.350% weight percent flash-off of cold mix
Potential Throughput (tons/yr) = 3,504,000 tons/yr stockpile mix

Potential VOC Emissions (tons/yr) = Potential Throughput (tons/yr) * wt percent flash-off
Potential VOC Emissions = 12,264.00 tons/yr

* Weight percent flash-off is based on a 7.0 percent by weight of cutback asphalt, containing a maximum of 20.0% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.

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

Criteria Pollutants:

P M:	56,506.30 ton/yr	
P M-10:	11,484.57 ton/yr	
S O 2:	353.81 ton/yr	
N O x:	127.33 ton/yr	
V O C:	12,286.86 ton/yr	(VOCs include HAPs from aggregate drying operation)
C O:	57.06 ton/yr	

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

In order to qualify for the FESOP program, this facility must limit PM-10, SO₂, NO_x and VOC emissions to 99.9 tons per year. Consequently, SO₂ emissions from the aggregate dryer are being limited to 91.02 tons per year (99.9 ton/yr - 8.88 ton/yr from other combustion sources), and NO_x emissions from the aggregate dryer are being limited to 97.40 tpy (99.9 tpy - 2.5 tpy from other combustion sources).

* Emissions of PM and PM-10 from aggregate drying operations are controlled with a 99.950 % control effic.

The following calculations determine the amount of emissions created by natural gas combustion based on a maximum fuel usage of 1,038.42 MMcf

Natural Gas:	<u>1,038.42 MMcf/yr</u>	* Ef (lb/MMcf) = (ton/yr)
	2,000 lb/ton	
P M:	1.9 lb/MMcf =	4.93E-04 ton/yr *
P M-10:	7.6 lb/MMcf =	1.97E-03 ton/yr *
S O 2:	0.6 lb/MMcf =	0.31 ton/yr
N O x:	190.0 lb/MMcf =	98.65 ton/yr
V O C:	5.5 lb/MMcf =	2.86 ton/yr
C O:	84.0 lb/MMcf =	43.61 ton/yr

The following calculations determine the amount of emissions created by No. 2 fuel oil @ 0.50 % sulfur based on a fuel usage limitation of 2,563,944 gal/yr:

No. 2 Distillate Oil:	<u>2,563,944 gal/yr</u>	* Ef (lb/1,000 gal) = (ton/yr)
	2,000 lb/ton	
P M:	2.0 lb/1000 gal =	1.28E-03 ton/yr *
P M-10:	1.0 lb/1000 gal =	6.41E-04 ton/yr *
S O 2:	71.0 lb/1000 gal =	91.02 ton/yr
N O x:	20.0 lb/1000 gal =	25.64 ton/yr
V O C:	0.2 lb/1000 gal =	0.26 ton/yr
C O:	5.0 lb/1000 gal =	6.41 ton/yr

The following calculations determine the amount of emissions created by re-refined waste oil @ 0.50 % sulfur based on a fuel usage limitation of 2,476,735 gal/yr:

Re-refined Waste Oil: $\frac{2,476,735 \text{ gal/yr}}{2,000 \text{ lb/ton}}$ * Ef (lb/1,000 gal) = (ton/yr)

P M:	68.8 lb/1000 gal =	4.26E-02 ton/yr *
P M-10:	51.0 lb/1000 gal =	3.16E-02 ton/yr *
S O 2:	73.5 lb/1000 gal =	91.02 ton/yr
N O x:	19.0 lb/1000 gal =	23.53 ton/yr
V O C:	1.0 lb/1000 gal =	1.24 ton/yr
C O:	5.0 lb/1000 gal =	6.19 ton/yr

Criteria Pollutant:

		Worst Case Fuel
P M:	4.26E-02 ton/yr *	Re-refined Waste Oil
P M-10:	3.16E-02 ton/yr *	Re-refined Waste Oil
S O 2:	91.02 ton/yr	Re-refined Waste Oil/No. 2 Fuel Oil
N O x:	98.65 ton/yr	Natural Gas
V O C:	2.86 ton/yr	Natural Gas
C O:	43.61 ton/yr	Natural Gas

Primary Fuel Usage Limitations

Fuel Oil: Re-refined waste oil

$$\frac{91.02 \text{ tons SO2/year limited}}{344.93 \text{ tons SO2/year potential}} * 9385.71 \frac{\text{Kgals}}{\text{year potential}} = 2476.73 \frac{\text{Kgals}}{\text{year limited}}$$

Secondary Fuel Usage Limitations

Fuel Oil: No. 2 distillate fuel oil

$$\frac{91.02 \text{ tons SO2/year limited}}{335.59 \text{ tons SO2/year potential}} * 9453.24 \frac{\text{Kgals}}{\text{year potential}} = 2563.94 \frac{\text{Kgals}}{\text{year limited}}$$

Fuel: Natural Gas

$$\frac{97.4 \text{ tons NOX/year limited}}{124.83 \text{ tons NOX/year potential}} * 1314.00 \frac{\text{MMcf}}{\text{year potential}} = 1025.26 \frac{\text{MMcf}}{\text{year limited}}$$

Secondary Fuel equivalence for re-refined waste oil is determined from the limiting pollutant, SO2, as follows:

$$\frac{0.6 \text{ lb/MMcf}}{73.50 \text{ lb/1000 gal}} = 8.16 \text{ gallons per million cubic feet (MMcf) natural gas (i.e., every 1 MMcf natural gas burned is equivalent to 8.16 gallons of oil burned, based on SO2 emissions)}$$

Secondary Fuel equivalence for No. 2 fuel oil is determined from the limiting pollutant, SO2, as follows:

$$\frac{0.6 \text{ lb/MMcf}}{71.00 \text{ lb/1000 gal}} = 8.45 \text{ gallons per million cubic feet (MMcf) natural gas (i.e., every 1 MMcf natural gas burned is equivalent to 8.45 gallons of oil burned, based on SO2 emissions)}$$

Secondary fuel equivalence limit for #2 distillate fuel oil based on SO2 emissions from re-refined waste oil

$$\frac{335.59 \text{ #2 F.O. potential emissions (ton/yr)}}{9453.24 \text{ #2 F.O. potential usage (kgal/yr)}} / \frac{344.93 \text{ W.O. potential emissions (ton/yr)}}{9385.71 \text{ W.O. potential usage (kgal/yr)}} = 0.9660 \frac{\text{Kgal W.O. burned}}{\text{Kgal #2 F.O. burned}}$$

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

hot oil heaters:		nonfugitive	
P M:	0.25 ton/yr x	100.00%	emitted after controls = 0.25 ton/yr
P M-10:	0.13 ton/yr x	100.00%	emitted after controls = 0.13 ton/yr
aggregate drying:		nonfugitive	
P M:	56,386.87 ton/yr x	0.05%	emitted after controls = 28.19 ton/yr
P M-10:	11,452.14 ton/yr x	0.05%	emitted after controls = 5.73 ton/yr
VOC:	15.27 ton/yr x	100.00%	emitted after controls = 15.27 ton/yr
conveying/handling:		fugitive	
P M:	8.97 ton/yr x	50%	emitted after controls = 4.48 ton/yr
P M-10:	4.24 ton/yr x	50%	emitted after controls = 2.12 ton/yr
silo filling/load out:		fugitive	
P M:	1.00 ton/yr x	50%	emitted after controls = 0.50 ton/yr
P M-10:	1.00 ton/yr x	50%	emitted after controls = 0.50 ton/yr
VOC:	2.80 ton/yr x	100%	emitted after controls = 2.80 ton/yr
CO:	0.40 ton/yr x	100%	emitted after controls = 0.40 ton/yr
unpaved roads:		fugitive	
P M:	106.85 ton/yr x	50%	emitted after controls = 53.42 ton/yr
P M-10:	27.23 ton/yr x	50%	emitted after controls = 13.62 ton/yr
storage piles:		fugitive	
P M:	2.37 ton/yr x	50%	emitted after controls = 1.18 ton/yr
P M-10:	0.83 ton/yr x	50%	emitted after controls = 0.41 ton/yr
Cold mix storage:		fugitive	
VOC:	12,264.00	315.72 limited diluent throughput (tpy) =	78.93 ton/yr

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

Criteria Pollutant:

	Non-Fugitive	Fugitive	Total
PM:	28.44 ton/yr	59.59 ton/yr	88.03 ton/yr
PM-10:	5.86 ton/yr	16.65 ton/yr	22.51 ton/yr
S O 2:	99.90 ton/yr	0.00 ton/yr	99.90 ton/yr
N O x:	99.90 ton/yr	0.00 ton/yr	99.90 ton/yr
V O C:	18.17 ton/yr	81.73 ton/yr	99.90 ton/yr
C O:	45.09 ton/yr	0.40 ton/yr	45.49 ton/yr

Hazardous Air Pollutants (HAPs)

**** aggregate dryer burner****

The following calculations determine the amount of HAP emissions created by the combustion of distillate fuel oil before & after controls @ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-10.

Hazardous Air Pollutants (HAPs):

		150 MMBtu/hr * 8760 hr/yr	* Ef (lb/10 ¹² Btu) = (ton/yr)	
		2,000 lb/ton	Potential To Emit	Limited Emissions
Arsenic:	4 lb/10 ¹² Btu =		2.63E-03 ton/yr	1.31E-06 ton/yr
Beryllium:	3 lb/10 ¹² Btu =		1.97E-03 ton/yr	9.85E-07 ton/yr
Cadmium:	3 lb/10 ¹² Btu =		1.97E-03 ton/yr	9.85E-07 ton/yr
Chromium:	3 lb/10 ¹² Btu =		1.97E-03 ton/yr	9.85E-07 ton/yr
Lead:	9 lb/10 ¹² Btu =		5.91E-03 ton/yr	2.96E-06 ton/yr
Manganese:	6 lb/10 ¹² Btu =		3.94E-03 ton/yr	1.97E-06 ton/yr
Mercury:	3 lb/10 ¹² Btu =		1.97E-03 ton/yr	9.85E-07 ton/yr
Nickel:	3 lb/10 ¹² Btu =		1.97E-03 ton/yr	9.85E-07 ton/yr
Selenium:	15 lb/10 ¹² Btu =		9.86E-03 ton/yr	4.93E-06 ton/yr
Total HAPs =			3.22E-02 ton/yr	1.61E-05 ton/yr

The following calculations determine the amount of HAP emissions created by the combustion of waste oil before & after controls @ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.11-5.

Hazardous Air Pollutants (HAPs):

		150 MMBtu/hr * 8,760 hr/yr	* Ef (lb/1,000 gal) = (ton/yr)	
		140,000 Btu/gal * 2,000 lb/ton	Potential To Emit	Limited Emissions
Arsenic:	1.10E-01 lb/1000 gal =		5.16E-01 ton/yr	2.58E-04 ton/yr
Cadmium:	9.30E-03 lb/1000 gal =		4.36E-02 ton/yr	2.18E-05 ton/yr
Chromium:	2.00E-02 lb/1000 gal =		9.39E-02 ton/yr	4.69E-05 ton/yr
Cobalt:	2.10E-04 lb/1000 gal =		9.86E-04 ton/yr	4.93E-07 ton/yr
Lead:	1.87E-01 lb/1000 gal =		8.78E-01 ton/yr	4.39E-04 ton/yr
Manganese:	6.80E-02 lb/1000 gal =		3.19E-01 ton/yr	1.60E-04 ton/yr
Nickel:	1.10E-02 lb/1000 gal =		5.16E-02 ton/yr	2.58E-05 ton/yr
HCL^(a):	0.00E+00 lb/1000 gal =		0.00E+00 ton/yr	0.00E+00 ton/yr
Total HAPs =			1.90E+00 ton/yr	9.52E-04 ton/yr

(a) HCL emission factor = 66Cl^(b) (b) = weight % chlorine in fuel. Marzane uses waste oil that does not contain chlorine.

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

The following calculations determine the amount of HAP emissions created by aggregate drying before & after controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-10 for a drum mix dryer which can be fired with either fuel oil or natural gas. The HAP emission factors represent the worst case emissions (fuel oil combustion).

Pollutant:	Ef	lb/ton x	400	ton/hr x	8760 hr/yr		
Hazardous Air Pollutants (HAPs):			2000	lb/ton		Potential To Emit	Limited Emissions
Benzene:	3.90E-04	lb/ton =				0.68 ton/yr	0.68 ton/yr
Ethylbenzene:	2.40E-04	lb/ton =				0.42 ton/yr	0.42 ton/yr
Formaldehyde:	3.10E-03	lb/ton =				5.43 ton/yr	5.43 ton/yr
Hexane:	9.20E-04	lb/ton =				1.61 ton/yr	1.61 ton/yr
2,2,4 Trimethylpentane:	4.00E-05	lb/ton =				0.07 ton/yr	0.07 ton/yr
Methyl chloroform:	4.8E-05	lb/ton =				0.08 ton/yr	0.08 ton/yr
Toluene:	2.90E-03	lb/ton =				5.08 ton/yr	5.08 ton/yr
Total Polycyclic Organic Matter (POM):	8.800E-04	lb/ton =				1.54 ton/yr	1.54 ton/yr
Xylene:	2.00E-04	lb/ton =				0.35 ton/yr	0.35 ton/yr
Total HAPs =						15.27 ton/yr	15.27 ton/yr

**** aggregate drying: batch-mix plant ****

The following calculations determine the amount of HAP emissions created by aggregate drying before & after controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-9 for a batch mix dryer which can be fired with either fuel oil or natural gas.

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

Hazardous Air Pollutants (HAPs):		Potential To Emit	Limited Emissions
Acetaldehyde:	3.2E-04	lb/ton = 0.56 ton/yr	0.56 ton/yr
Benzene:	2.8E-04	lb/ton = 0.49 ton/yr	0.49 ton/yr
Ethylbenzene:	2.2E-03	lb/ton = 3.85 ton/yr	3.85 ton/yr
Formaldehyde:	7.4E-04	lb/ton = 1.30 ton/yr	1.30 ton/yr
PAH (total) HAPs:*	1.1E-04	lb/ton = 0.19 ton/yr	0.19 ton/yr
Quinone:	2.7E-04	lb/ton = 0.47 ton/yr	0.47 ton/yr
Toluene:	1.0E-03	lb/ton = 1.75 ton/yr	1.75 ton/yr
Xylene:	2.7E-03	lb/ton = 4.73 ton/yr	4.73 ton/yr
Total HAPs =		13.35 ton/yr	13.35 ton/yr

* See AP-42, Section 11.1, Table 11.1-9 for complete listing of PAH HAPs.

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

Hazardous Air Pollutants (HAPs):

Drum Mix:		Batch Mix:	
Arsenic:	0.516 ton/yr	Acetaldehyde:	0.561 ton/yr
Benzene:	0.683 ton/yr	Arsenic:	0.516 ton/yr
Beryllium:	0.002 ton/yr	Benzene:	0.491 ton/yr
Cadmium:	0.044 ton/yr	Beryllium:	0.002 ton/yr
Chromium:	0.094 ton/yr	Cadmium:	0.044 ton/yr
Cobalt:	0.001 ton/yr	Chromium:	0.094 ton/yr
Ethylbenzene:	0.420 ton/yr	Cobalt:	0.001 ton/yr
Formaldehyde:	5.431 ton/yr	Ethylbenzene:	3.854 ton/yr
Hexane:	1.612 ton/yr	Formaldehyde:	1.296 ton/yr
Lead:	0.878 ton/yr	Manganese:	0.319 ton/yr
1,1,1-Trimethylpentane:	0.070 ton/yr	Mercury:	0.002 ton/yr
Manganese:	0.319 ton/yr	Nickel:	0.052 ton/yr
Mercury:	0.002 ton/yr	Quinone:	0.473 ton/yr
Methyl chloroform:	0.084 ton/yr	Selenium:	0.683 ton/yr
Nickel:	0.052 ton/yr	Toluene:	1.752 ton/yr
Selenium:	0.683 ton/yr	Total PAH:	0.193 ton/yr
Toluene:	5.081 ton/yr	Xylene:	4.730 ton/yr
Total POM:	1.542 ton/yr	Total:	15.06 ton/yr
Xylene:	0.350 ton/yr		
Total:	17.864 ton/yr		

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

Hazardous Air Pollutants (HAPs):

Drum Mix:

Arsenic:	0.000	ton/yr
Benzene:	0.683	ton/yr
Beryllium:	0.000	ton/yr
Cadmium:	0.000	ton/yr
Chromium:	0.000	ton/yr
Cobalt:	0.000	ton/yr
Ethylbenzene:	0.420	ton/yr
Formaldehyde:	5.431	ton/yr
Hexane:	1.612	ton/yr
Lead:	0.000	ton/yr
Trimethylpentane:	0.070	ton/yr
Manganese:	0.000	ton/yr
Mercury:	0.000	ton/yr
Methyl chloroform:	0.084	ton/yr
Nickel:	0.000	ton/yr
Selenium:	0.000	ton/yr
Toluene:	5.081	ton/yr
Total POM:	1.542	ton/yr
Xylene:	0.350	ton/yr
Total:	15.275	ton/yr

Batch Mix:

Acetaldehyde:	0.561	ton/yr
Arsenic:	0.000	ton/yr
Benzene:	0.491	ton/yr
Beryllium:	0.000	ton/yr
Cadmium:	0.000	ton/yr
Chromium:	0.000	ton/yr
Cobalt:	0.000	ton/yr
Ethylbenzene:	3.854	ton/yr
Formaldehyde:	1.296	ton/yr
Manganese:	0.000	ton/yr
Mercury:	0.000	ton/yr
Nickel:	0.000	ton/yr
Quinone:	0.473	ton/yr
Selenium:	0.000	ton/yr
Toluene:	1.752	ton/yr
Total PAH:	0.193	ton/yr
Xylene:	4.730	ton/yr
Total:	13.35	ton/yr

**** miscellaneous ****

326 IAC 7 Compliance Calculations:

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

$$0.5 \text{ lb/MMBtu} \times 139,000 \text{ Btu/gal} = 69.5 \text{ lb/1000gal}$$

$$69.5 \text{ lb/1000gal} / 142 \text{ lb/1000 gal} = 0.5 \%$$

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

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

$$1.6 \text{ lb/MMBtu} \times 140,000 \text{ Btu/gal} = 224 \text{ lb/1000gal}$$

$$224 \text{ lb/1000gal} / 142 \text{ lb/1000 gal} = 1.6 \%$$

Sulfur content must be less than or equal to 1.6% to comply with 326 IAC 7.

326 IAC 6-3-2 Compliance Calculations:

The following calculations determine compliance with 326 IAC 6-3-2 for process weight rates in excess of 30 tons per hour:

$$\text{limit} = 55 * (400^{0.11}) - 40 = 66.31 \text{ lb/hr or } 290.45 \text{ ton/yr}$$

Since the emission limits pursuant to Subpart I of 50.54 tons per year are more stringent than this limit, the limit pursuant to 326 IAC 6-3-2 does not apply. The emission limits pursuant to Subpart I shall also render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

PM-10 Emission Limit for Aggregate Dryer:

$$(99.9 \text{ tons PM-10/yr} - 16.79 \text{ tons PM-10/yr from other sources})$$

=

$$83.11 \text{ tons PM-10/yr} = 18.97 \text{ lbs/hr}$$

PM-10 emissions from the aggregate dryer are controlled to 5.6 lbs/hr < 18.99 lbs/hr (Will comply)

Based on a maximum asphalt mix throughput of 400 tons/hr, this emission limit is equivalent to 0.042 lb PM10 per ton of asphalt mix.

Compliance with NSPS (326 IAC 12; 40 CFR 60.90 to 60.93, Subpart I)

The following calculations determine compliance with NSPS, which limits stack emissions from asphalt plants to 0.04 gr/dscf.

Aggregate Dryer Baghouse (Drum Mix):

$$\frac{24.69 \text{ ton/yr} * 2000 \text{ lb/ton} * 7000 \text{ gr/lb}}{525,600 \text{ min/yr} * 33,654 \text{ dscf/min}} = 0.020 \text{ gr/dscf (will comply)}$$

Aggregate Dryer Baghouse (Batch Mix):

$$\frac{28.19 \text{ ton/yr} * 2000 \text{ lb/ton} * 7000 \text{ gr/lb}}{525,600 \text{ min/yr} * 33,654 \text{ dscf/min}} = 0.022 \text{ gr/dscf (will comply)}$$

Allowable particulate emissions under NSPS equate to 50.54 tons per year. 11.54 lbs/hr

Note:

$$\text{SCFM} = \frac{48,430 \text{ acfm} * (460 + 68) * (1 - 0.0261)}{33,654 \text{ scfm} * (460 + 280)}$$

Assumes exhaust gas temperature of 280F and exhaust gas flow of 68,000 acfm.

PM Emission Limit for Aggregate Dryer:

$$(249.0 \text{ tons PM/yr} - 59.72 \text{ tons PM/yr from other sources})$$

=

$$189.28 \text{ tons PM/yr} = 43.21 \text{ lbs/hr}$$

PM emissions from the aggregate dryer are controlled to 5.64 lbs/hr < 43.21 lbs/hr (Will comply)

Based on a maximum asphalt mix throughput of 400 tons/hr, this emission limit is equivalent to 0.108 lb PM per ton of asphalt mix.

Compliance with this limit shall render the requirements of 326 IAC 2-2 (PSD) not applicable.