



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: January 12, 2009
RE: CGS Services, Inc / 145-22532-00060
FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

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.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

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.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

CGS Services, Inc.
2920 E US 52, Morristown, Indiana 46161
Morristown, Indiana 46161

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. 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 2-7 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.: T 145-22532-00060	
Issued by:  Chrystal A. Wagner, Section Chief Permits Branch Office of Air Quality	Issuance Date: January 12, 2009 Expiration Date: January 12, 2014

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1, A.3 and A.4 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 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a sand and gravel operation and hot mix asphalt production.

Source Address:	2920 E US 52, Morrilltown, Indiana 46161
Mailing Address:	P.O. Box 212, Morrilltown, Indiana 46161
General Source Phone Number:	765 - 763 - 1238
SIC Code:	2951
County Location:	Shelby
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

This sand and gravel operation and hot mix asphalt production consists of three (3) plants:

- (a) Stationary asphalt plant, identified as S-1 (Plant ID 00060), is located at 2920 E US 52, Morrilltown, Indiana;
- (b) Portable asphalt plant, identified as W-1 (Plant ID 05056), is located at 2920 E US 52, Morrilltown, Indiana;
- (c) Portable asphalt plant, identified as W-2 (Plant ID 05202), is located at 2920 E US 52, Morrilltown, Indiana;

Since the three (3) plants are located on contiguous or adjacent properties, belong to the same industrial grouping, and are under common control of the same entity, they will be considered one (1) source. IDEM, OAQ determined that the three (3) plants are one (1) source in T 145-14524-00060, 05056 & 05202 issued on November 1, 2001. The source will be issued a single Part 70 Operating Permit Renewal (T 145-22532-00060) and although the portable description will be retained for two (2) asphalt plants, it will only apply to the on-site portability of these units.

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

Stationary Asphalt Plant, identified as S-1

- (a) One (1) hot continuous drum mixer, identified as Kiln Hood Outlet, constructed in 2005, equipped with a baghouse, exhausting to Stack S-1a, capacity: 300 tons of asphalt per hour.
- (b) One (1) dryer burner, identified as Burner, burning either natural gas, diesel, or No. 2 fuel oil, constructed in 2005, equipped with a baghouse, exhausting to Stack S-1a, rated at 120.0 million British thermal units per hour.

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

Portable Asphalt Plant, identified as W-1

- (c) One (1) portable warm mix asphalt drum mixer, identified as W1, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, capacity: 200 tons of asphalt per hour.
- (d) One (1) dryer burner, burning No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, exhausting to Stack W-1a, rated at 62.0 million British thermal units per hour.
- (e) One (1) warm oil heater, identified as W-1i, burning natural gas, diesel, or No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, exhausting to Stack W-1i, rated at 0.75 million British thermal units per hour.
- (f) One (1) diesel generator, identified as E34, rated at 205 kilowatts.

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

Portable Asphalt Plant, identified as W-2

- (g) One (1) portable warm mix asphalt drum mixer, identified as W2, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, capacity: 200 tons of asphalt per hour.
- (h) One (1) dryer burner, burning No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, exhausting to Stack W-2a, rated at 62.0 million British thermal units per hour.
- (i) One (1) warm oil heater, identified as W-2i, burning natural gas, diesel, or No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, exhausting to Stack W-2i, rated at 0.75 million British thermal units per hour.
- (j) One (1) diesel generator, identified as E33, rated at 175 kilowatts.

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

A.4 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5 (15)]

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

- (a) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

Stationary Asphalt Plant, identified as S-1

- (b) One (1) bucket elevator. [326 IAC 6-3-2]
- (c) Two (2) silos, identified as Silo 1 and Silo 2. [326 IAC 6-3-2]
- (d) Five (5) storage bins, throughput capacity: 175 tons per hour each. [326 IAC 6-3-2]

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 Permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

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

B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5] [326 IAC 2-7-4(a)(1)(D)] [IC 13-15-3-6(a)]

- (a) This permit, T 145-22532-00060 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 of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-7-7]

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

B.5 Severability [326 IAC 2-7-5(5)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(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 "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U.S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (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 the "responsible official" 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, or its equivalent, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) The "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

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

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

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (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 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]

- (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) by job title responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1 (34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

- (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.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865
 - (5) For each emergency lasting one (1) hour or more, the Permittee submitted the

attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

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

The notice fulfills the requirement of 326 IAC 2-7-5(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 "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) 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 2-7 and any other applicable rules.
- (g) 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.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC

13 and rules from 326 IAC, referenced 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 Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T 145-22532-00060, 05056 & 05202 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.

- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

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 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

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

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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 2-7-9(a)(3)]
- (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 2-7-9(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(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 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

- (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 2-7-4. 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 "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [40 CFR 72]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1 (34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326

IAC 2-7-11 (c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]
[326 IAC 2-7-12 (b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(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 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2] [326 IAC 2-3-2]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

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 Part 70 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 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 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 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.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

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

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

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11 (c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [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) Except as provided in 326 IAC 2-7-19(e), 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.25 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [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 emission limitation, standard or rule if the appropriate performance or compliance test or procedure had been performed.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

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

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

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 at Stationary Asphalt Plant and Portable Asphalt Plants, identified as S-1, W-1 and W-2, shall meet the following, unless otherwise stated in this permit:

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

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. 326 IAC 4-1-3(a)(2)(D) and (E); 4-1-3(b)(2)(A)&(B); 4-1-3(b)(3)(D), 4-1-3(b)(4) & (5); 4-1-3(c)(1)(B)-(F); 4-1-3(C)(2)(B); 4-1-3(c)(6); 4-1-3(c)(8); and 4-1-6 are not federally enforceable.

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

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

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on May 14, 1999. The plan consists of applying water to unpaved and paved roads, as well as storage piles on an as-needed basis and restricting the speed of trucks to 15 miles per hour for stationary plant S-1 and the two (2) portable plants W-1 and W-2.

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. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

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

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

Testing Requirements [326 IAC 2-7-6(1)]

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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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 "responsible official" as defined by 326 IAC 2-7-1(34).
- (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.
- (d) In addition to any other testing required by this permit if at any time the Permittee replaces a control device that is used to comply with an emission limitation listed in Section D, then the Permittee shall conduct a performance test no later than one hundred eighty (180) days after installation of the replacement control device in accordance with this Condition.

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 2-7-5(1)] [326 IAC 2-7-6(1)]

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.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 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.16 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

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

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

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

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

- (a) Pursuant to 326 IAC 2-6-3(b)(2), starting in 2005 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
 - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement required by this permit shall be considered timely if the date post-marked 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.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are

available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-7-5(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 "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

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

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

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

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Stationary Asphalt Plant, identified as S-1

- (a) One (1) hot continuous drum mixer, identified as Kiln Hood Outlet, constructed in 2005, equipped with a baghouse, exhausting to Stack S-1a, capacity: 300 tons of asphalt per hour.
- (b) One (1) dryer burner, identified as Burner, burning either natural gas, diesel, or No. 2 fuel oil, constructed in 2005, equipped with a baghouse, exhausting to Stack S-1a, rated at 120.0 million British thermal units per hour.

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

Portable Asphalt Plant, identified as W-1:

- (c) One (1) portable warm mix asphalt drum mixer, identified as W1, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, capacity: 200 tons of asphalt per hour.
- (d) One (1) dryer burner, burning No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, exhausting to Stack W-1a, rated at 62.0 million British thermal units per hour.
- (e) One (1) warm oil heater, identified as W-1i, burning natural gas, diesel, or No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, exhausting to Stack W-1i, rated at 0.75 million British thermal units per hour.
- (f) One (1) diesel generator, identified as E34, rated at 205 kilowatts.

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

Portable Asphalt Plant, identified as W-2:

- (g) One (1) portable warm mix asphalt drum mixer, identified as W-2, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, capacity: 200 tons of asphalt per hour.
- (h) One (1) dryer burner, burning No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, exhausting to Stack W-2a, rated at 62.0 million British thermal units per hour.
- (i) One (1) warm oil heater, identified as W-2i, burning natural gas or No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, exhausting to Stack W-2i, rated at 0.75 million British thermal units per hour.
- (j) One (1) diesel generator, identified as E33, rated at 175 kilowatts.

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

(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 2-7-5(1)]

D.1.1 Minor Source Limits [326 IAC 2-2][326 IAC 2-3]

- (a) The fuel oil no. 2 usage from Portable Asphalt Plant, known as W-1, Portable Asphalt Plant, known as W-2 and Stationary Asphalt Plant, known as S-1, shall be limited to 4,211,847 gallons per 12 consecutive month period with compliance determined at the end of each month. This usage limit is required to limit the potential to emit of nitrogen oxides to less than 100 tons per 12 consecutive month period and the sulfur dioxide to less than 250 tons

per twelve consecutive month period.

- (b) The natural gas and fuel oil No. 2 usage from Portable Asphalt Plant, known as W-1, Portable Asphalt Plant, known as W-2 and Stationary Asphalt Plant, known as S-1 shall have the following equivalency:

For every thousand gallon of fuel oil no. 2 with a maximum sulfur content of 0.45% shall be equivalent to 117 million cubic feet of natural gas.

Compliance with this limit will make 326 IAC 2-3, Emission Offset and 326 IAC 2-2, Prevention of Significant Deterioration (PSD) rules not applicable.

D.1.2 Particulate Matter PM and Particulate Matter Less than Ten Microns Minor Limit (PM10) [326 IAC 2-2]
Emissions from both Drum Mixer and Dryer Burner shall be limited as follows:

- (a) the PM emissions shall be limited to 0.18 pounds per ton of asphalt produced.
(b) the PM10 emissions shall be limited to 0.18 pounds per ton of asphalt produced.

Compliance with this limit shall limit PM and PM10 to less than 250 tons per twelve month period.

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

- (a) Pursuant to 326 IAC 7-1.1-2, the SO₂ emissions from the dryer burner, identified as Burner, shall not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 fuel oil, equivalent to a sulfur content of five-tenths percent (0.5%) by weight. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.
- (b) Pursuant to 326 IAC 7-1.1-2, the SO₂ emissions from the dryer burners at Portable Plants, identified as W-1 and W-2 shall not exceed five tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 fuel oil, equivalent to a sulfur content of five tenth percent (0.5%) by weight. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.1.4 VOC BACT Minor Limit [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the asphalt production at S-1 shall be limited to 1,533,000 tons per twelve (12) consecutive month period and 0.032 pounds of VOC per ton of asphalt produced with compliance determined at the end of each month. This is equivalent to VOC emissions from the S-1 aggregate dryer/mixer when combined with combustion emissions of less than 25 tons per year.

Compliance with the above limit will limit the VOC emissions from Stationary Plant S-1 to less than 25 tons per twelve (12) consecutive month period and render 326 IAC 8-1-6 not applicable to the emission unit.

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

- (a) A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the hot continuous drum mixer, identified as Kiln Hood Outlet, and dryer burner, identified as Burner, and their control device.
- (b) A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the portable warm mix asphalt drum mixer, identified as W1, and the dryer burner and their control device.

- (c) A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the portable warm mix asphalt drum mixer, identified as W2, and the dryer burner and their control device.

Compliance Determination Requirements

D.1.6 Particulate Control [326 IAC 2-7-6(6)]

In order to comply with Condition D.1.2:

- (a) the baghouse for PM control shall be in operation and control emissions from the hot continuous drum mixer, identified as Kiln Hood Outlet, and dryer burner, identified as Burner, at all times that the hot continuous drum mixer or the dryer burner is in operation.
- (b) the cyclone for PM control shall be in operation and control emissions from the portable warm mix asphalt drum mixer, identified as W1, and the dryer burner at all times that the portable warm mix asphalt drum mixer, identified as W1, or the dryer burner is in operation.
- (c) the cyclone for PM control shall be in operation and control emissions from the portable warm mix asphalt drum mixer, identified as W2, and the dryer burner at all times that the portable warm mix asphalt drum mixer, identified as W2 or the dryer burner is in operation.

D.1.7 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal unit heat input 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 one hundred twenty (120.0) million British thermal units per hour oil-fueled dryer/burner using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

D.1.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) By August 30, 2011, in order to demonstrate compliance with Conditions D.1.1(c) and D.1.1 (d), the Permittee shall perform PM and PM₁₀ testing utilizing methods as approved by the Commissioner at the dryer/mixer Stack S-1a. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C - Performance Testing.

- (b) By November 15, 2011, in order to demonstrate compliance with Conditions D.1.1(c) and D.1.1 (d), the Permittee shall perform PM and PM₁₀ testing utilizing methods as approved by the Commissioner at the dryer/mixer Stack W-1a. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C - Performance Testing.
- (c) By November 15, 2011, in order to demonstrate compliance with Conditions D.1.1(c) and D.1.1 (d), the Permittee shall perform PM and PM₁₀ testing utilizing methods as approved by the Commissioner at the dryer/mixer Stack W-2a. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Assurance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.9 Visible Emissions Notations [40 CFR 64, Compliance Assurance Monitoring (CAM)]

- (a) Visible emission notations of the conveyers, material transfer points, and the hot continuous drum mixer and dryer burner stack exhaust S-1a, the portable warm mix asphalt drum mixer, identified as W1 and the dryer burner stack exhaust W-1a, and the portable warm mix asphalt drum mixer, identified as W2 and the dryer burner stack exhaust W-2a shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.10 Baghouse Parametric Monitoring [40 CFR 64, Compliance Assurance Monitoring (CAM)]

- (a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the hot continuous drum mixer and dryer burner at least once per day when either the hot continuous drum mixer or the dryer burner is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 7.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.11 Broken or Failed Bag Detection [40 CFR 64, Compliance Assurance Monitoring (CAM)]

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks or dust traces.

D.1.12 Cyclone Failure Detection [40 CFR 64, Compliance Assurance Monitoring (CAM)]

- (a) For a cyclone controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a cyclone controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.13 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain records of the amount of asphalt produced per month.
- (b) To document compliance with Condition D.1.1, the Permittee shall maintain records of the fuel oil usage from Portable Asphalt Plant, known as W-1, Portable Asphalt Plant, known as W-2 and Stationary Asphalt Plant, known as S-1. Records maintained shall be taken monthly and shall be complete and sufficient to establish compliance with the fuel oil usage limit established in Condition D.1.1.
- (c) To document compliance with Conditions D.1.7, 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 fuel usage limits established in Condition D.1.7. Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual usage of No. 2 fuel oil since the last compliance determination period and equivalent SO₂ emissions;
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel oil combusted during the period; 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.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (d) To document compliance with Condition D.1.9, the Permittee shall maintain a daily record of visible emission notations of the conveyers, material transfer points, and the hot continuous drum mixer and dryer burner stack exhaust S-1a, the portable warm mix asphalt drum mixer, identified as W1 and the dryer burner stack exhaust W-1a, and the portable warm mix asphalt drum mixer, identified as W2 and the dryer burner stack exhaust W-2a. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the conveyers, material transfer points, and hot continuous drum mixer or dryer burner did not operate that day).
- (e) To document compliance with Condition D.1.10, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the hot continuous drum mixer and dryer burner. (The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the hot continuous drum mixer or dryer burner did not operate that day).
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.14 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.4 shall be submitted to the addresses 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 "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: **Insignificant Activities at Stationary Asphalt Plant, identified as S-1**

- (a) One (1) bucket elevator. [326 IAC 6-3-2]
- (b) Two (2) silos, identified as Silo 1 and Silo 2. [326 IAC 6-3-2]
- (c) Five (5) storage bins, throughput capacity: 175 tons per hour each. [326 IAC 6-3-2]

(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 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable PM emission rate from the five (5) storage bins, one (1) bucket elevator, and two (2) silos shall be limited by the following:

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

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

or

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

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

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: NSPS Subpart I for Hot Mix Asphalt Plants, S-1, W-1 and W-2

Stationary Asphalt Plant, identified as S-1

- (a) One (1) hot continuous drum mixer, identified as Kiln Hood Outlet, constructed in 2005, equipped with a baghouse, exhausting to Stack S-1a, capacity: 300 tons of asphalt per hour.
- (b) One (1) dryer burner, identified as Burner, burning either natural gas, or No. 2 fuel oil, constructed in 2005, equipped with a baghouse, exhausting to Stack S-1a, rated at 120.0 million British thermal units per hour.

Portable Asphalt Plant, identified as W-1

- (c) One (1) portable warm mix asphalt drum mixer, identified as W1, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, capacity: 200 tons of asphalt per hour.
- (d) One (1) dryer burner, burning No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, exhausting to Stack W-1a, rated at 62.0 million British thermal units per hour.
- (e) One (1) warm oil heater, identified as W-1i, burning natural gas or No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, exhausting to Stack W-1i, rated at 0.75 million British thermal units per hour.
- (f) One (1) diesel generator, identified as E34, rated at 205 kilowatts.

Portable Asphalt Plant, identified as W-2

- (g) One (1) portable warm mix asphalt drum mixer, identified as W2, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, capacity: 200 tons of asphalt per hour.
- (h) One (1) dryer burner, burning No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, exhausting to Stack W-2a, rated at 62.0 million British thermal units per hour.
- (i) One (1) warm oil heater, identified as W-2i, burning natural gas or No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, exhausting to Stack W-2i, rated at 0.75 million British thermal units per hour.
- (j) One (1) diesel generator, identified as E33, rated at 175 kilowatts.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

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

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the hot mix asphalt facilities except as otherwise specified in 40 CFR Part 60, Subpart I.
- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management

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

E.1.2 New Source Performance Standards for Hot Mix Asphalt Facilities Requirements [40 CFR Part 60, Subpart I] [326 IAC 12-1]

Pursuant to 40 CFR Part 60, Subpart I, the Permittee shall comply with the provisions of 40 CFR Part 60.90, which are incorporated by reference as 326 IAC 12-1 for the hot mix asphalt plant as specified as follows:

Subpart I—Standards of Performance for Hot Mix Asphalt Facilities

§ 60.90 Applicability and designation of affected facility.

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

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

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

§ 60.91 Definitions.

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

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

[51 FR 12325, Apr. 10, 1986]

§ 60.92 Standard for particulate matter.

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

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

(2) Exhibit 20 percent opacity, or greater.

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

§ 60.93 Test methods and procedures.

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

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

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

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

[54 FR 6667, Feb. 14, 1989]

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: CGS Services, Inc.
Source Address: 2920 E US 52, Morrilltown, Indiana 46161
Mailing Address: P.O. Box 212, Morrilltown, Indiana 46161
Part 70 Permit No.: T 145-22532-00060

<p>This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.</p> <p>Please check what document is being certified:</p> <p><input type="checkbox"/> Annual Compliance Certification Letter</p> <p><input type="checkbox"/> Test Result (specify) _____</p> <p><input type="checkbox"/> Report (specify) _____</p> <p><input type="checkbox"/> Notification (specify) _____</p> <p><input type="checkbox"/> Affidavit (specify) _____</p> <p><input type="checkbox"/> Other (specify) _____</p>
--

<p>I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.</p>
<p>Signature: _____</p>
<p>Printed Name: _____</p>
<p>Title/Position: _____</p>
<p>Phone: _____</p>
<p>Date: _____</p>

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

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: CGS Services, Inc.
Source Address: 2920 E US 52, Morrilltown, Indiana 46161
Mailing Address: P.O. Box 212, Morrilltown, Indiana 46161
Part 70 Permit No.: T 145-22532-00060

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

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

A certification is not required for this report.

**OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Quarterly Report

Source Name: Caldwell Gravel Sales, Inc. (CGS)
Source Address: 11380 North 300 East, Morristown, IN 46161
Mailing Address: 11380 North 300 East, Morristown, IN 46161
Part 70 Permit No.: T145-14524-00060
Facility: Portable Asphalt Plant, known as W-1, Portable Asphalt Plant, known as W-2, and Stationary Asphalt Plant, known as S-1
Parameter: NOx & SO2
Limit: 4,211,847 gallons per 12 consecutive month period Fuel Oil No. 2 per twelve consecutive month period

Quarter: _____ **Year:** _____

Month	Fuel Type	%Sulfur Content of Fuel Oil No. 2	Fuel Oil No.2 Usage This Month	Equivalent Fuel Usage This Month	TOTAL Fuel Oil No.2 & Equivalent Fuel Usage This Month	Fuel Oil No. 2 Usage for Previous 11 Months (kgal)	Equivalent Fuel Usage for Previous 11 Months (kgal)	TOTAL Fuel Oil No.2 & Equivalent Fuel Usage for Previous 11 Months (kgal)	Fuel Oil No.2 Usage 12 Month Total	Equivalent Fuel Usage 12 Month Total	Fuel Oil No.2 & Equivalent Fuel Usage 12 Month Total
1											
2											
3											

Note: For every thousand gallon of fuel oil no. 2 with a maximum sulfur content of 0.45% shall be equivalent to 117 million cubic feet of natural gas

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

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

Part 70 Quarterly Report

Source Name: CGS Services, Inc.
 Source Address: 2920 E US 52, Morristown, Indiana 46161
 Mailing Address: P.O. Box 212, Morristown, Indiana 46161
 Part 70 Permit No.: T 145-22532-00060
 Facilities: Stationary Plant S-1
 Parameter: Amount of asphalt produced
 Limit: Less than a total of 1,533,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER _____ YEAR: _____

Month	Plant	Asphalt Produced (tons/month)		
		This Month	Previous 11 Months	12-Month Total
	S-1			
	S-1			
	S-1			
	Total			

- No deviation occurred in this month.
- Deviation/s occurred in this month.
 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**

**PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: CGS Services, Inc.
Source Address: 2920 E US 52, Morrilltown, Indiana 46161
Mailing Address: P.O. Box 212, Morrilltown, Indiana 46161
Part 70 Permit No.: T 145-22532-00060

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. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
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

Addendum to the Technical Support Document for a Part 70 Operating Permit Renewal

Source Name: CGS Services, Inc.
Source Location: 2920 E US 52, Morristown, Indiana 46161
County: Shelby
SIC Code: 2951
Permit Renewal No.: T 145-22532-00060
Permit Reviewer: Teresa Freeman

On October 9, 2008, the Office of Air Quality (OAQ) had a notice published in The Shelbyville News, Shelbyville, Indiana, stating that CGS Services, Inc. had applied for a Part 70 Operating Permit to continue to operate a sand and gravel operation and hot mix asphalt production. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On November 7, 2008, David Klene from CGS Services, Inc. submitted comments on the proposed Part 70 permit renewal. The summary of the comments (bolded language has been added, the language with a line through it has been deleted) is as follows:

Comment 1: The stationary plant accepted limitations to restrict emissions of SO₂ to less than 250 tons/year and NO_x emissions to less than 100 tons/year. These limits were specific to the stationary plant S-1 and we would request that the limits for SO₂ be limited to S-1 only and the permit not limit Plant wide emissions. This issue also relates to the limitations placed on PM, PM₁₀ and CO emissions from the plant. We believe that the limitation for CO should be removed and the PM/PM₁₀ limits in the current permit (0.18 lbs/ton) be retained.

Response 1: Shelby County was classified as nonattainment for ozone during the time that Stationary Asphalt Plant, identified as S-1 was replaced in 2005. During the Part 70 Operating Permit renewal process, an error was made in removing the requirements established in Significant Permit Modification 145-20917-00060 issued in June 10, 2005. Although Shelby County is now classified as attainment for ozone, the requirements should not have been changed during the Part 70 Operating Permit renewal process. This issue has been discussed with the Permittee and it is agreed that the conditions and reports established in 2005 should be reinstated. The following changes have been made as a result of this comment:

D.1.1 Minor Source Limits [326 IAC 2-2][**326 IAC 2-3**]

- ~~(a) The entire source, including Stationary Asphalt Plant, identified as S-1 and Portable Asphalt Plants, identified as W-1 and W-2, shall produce less than 3,569,230 tons of asphalt per twelve (12) consecutive month period, with compliance determined at the end of each month.~~
- ~~(b) The CO emissions from the aggregate dryer/mixer shall be less than 0.130 pounds per ton of asphalt produced. Compliance with this limit, combined with the unrestricted potential to emit CO from the two (2) diesel generators, identified as E34 and E33, at Portable Asphalt Plants, identified as W-1 and W-2, shall limit the CO emissions from the entire source to less than two hundred fifty (250) tons per year and renders the requirements of 326 IAC 2-2 (PSD) not applicable.~~

- ~~(c) Particulate emissions from the aggregate dryer/mixer shall be limited to less than 0.0933 pounds per ton of asphalt produced. Compliance with this limit, combined with the unrestricted potential to emit PM from the two (2) diesel generators, identified as E34 and E33, at Portable Asphalt Plants, identified as W-1 and W-2, the source-wide conveying/handling, screening, loadout, silo filling, oil heaters and dryer burner shall limit PM emissions from the entire source to less than two hundred fifty (250) tons per year and render the requirements of 326 IAC 2-2 not applicable.~~
- ~~(d) PM₁₀ emissions from the aggregate dryer/mixer shall be limited to less than 0.1185 pounds per ton of asphalt produced, including both filterable and condensable fractions. Compliance with this limit, combined with the unrestricted potential to emit PM₁₀ from the two (2) diesel generators, identified as E34 and E33, at Portable Asphalt Plants, identified as W-1 and W-2, the source-wide conveying/handling, screening, loadout, silo filling, oil heaters and dryer burner shall limit PM₁₀ emissions from the entire source to less than two hundred fifty (250) tons per year and render the requirements of 326 IAC 2-2 not applicable.~~
- ~~(e) The input of No. 2 fuel oil to the hot oil heaters and dryer/burners at Stationary Asphalt Plant, identified as S-1, Portable Asphalt Plant, identified as W-1, and Portable Asphalt Plant, identified as W-2, shall not exceed a total of 7,681.377 kilogallons per twelve (12) consecutive month period with compliance determined at the end of each month.~~
- ~~(1) For purposes of determining compliance based on sulfur dioxide (SO₂) emissions, each kilogallon of fuel oil at 0.1% sulfur content shall be equivalent to 0.222 kilogallon of fuel oil at 0.45% sulfur content.~~
- ~~(2) For purposes of determining compliance based on SO₂ emissions, each million cubic feet of natural gas shall be equivalent to 0.0094 kilogallons of fuel oil at 0.45% sulfur content.~~

~~Compliance with this limit, combined with the unrestricted potential to emit SO₂ from the two (2) diesel generators, identified as E34 and E33, at Portable Asphalt Plants, identified as W-1 and W-2, shall limit SO₂ emissions from the entire source to less than two hundred fifty (250) tons per year and render the requirements of 326 IAC 2-2 not applicable.~~

- (a) The fuel oil no. 2 usage from Portable Asphalt Plant, known as W-1, Portable Asphalt Plant, known as W-2 and Stationary Asphalt Plant, known as S-1, shall be limited to 4,211,847 gallons per 12 consecutive month period with compliance determined at the end of each month. This usage limit is required to limit the potential to emit of nitrogen oxides to less than 100 tons per 12 consecutive month period and the sulfur dioxide to less than 250 tons per twelve consecutive month period.**
- (b) The natural gas and fuel oil No. 2 usage from Portable Asphalt Plant, known as W-1, Portable Asphalt Plant, known as W-2 and Stationary Asphalt Plant, known as S-1 shall have the following equivalency:**

For every thousand gallon of fuel oil no. 2 with a maximum sulfur content of 0.45% shall be equivalent to 117 million cubic feet of natural gas.

Compliance with this limit will make 326 IAC 2-3, Emission Offset and 326 IAC 2-2, Prevention of Significant Deterioration (PSD) rules not applicable.

**D.1.2 Particulate Matter PM and Particulate Matter Less than Ten Microns Minor Limit (PM10)
[326 IAC 2-2]**

Emissions from both Drum Mixer and Dryer Burner shall be limited as follows:

- (a) the PM emissions shall be limited to 0.18 pounds per ton of asphalt produced.
- (b) the PM10 emissions shall be limited to 0.18 pounds per ton of asphalt produced.

Compliance with this limit shall limit PM and PM10 to less than 250 tons per twelve month period.

D.1.23 Sulfur Dioxide (SO₂) [326 IAC 7-1.1] [326 IAC 7-4-1.1]

D.1.34 VOC BACT Minor Limit [326 IAC 8-1-6]

D.1.45 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

D.1.56 Particulate Control [326 IAC 2-7-6(6)]

In order to comply with Conditions ~~D.1.1(c)~~ and ~~D.1.1(d)~~ **D.1.2:**

D.1.67 Sulfur Dioxide Emissions and Sulfur Content

D.1.78 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

D.1.89 Visible Emissions Notations [40 CFR 64, Compliance Assurance Monitoring (CAM)]

D.1.910 Baghouse Parametric Monitoring [40 CFR 64, Compliance Assurance Monitoring (CAM)]

D.1.101 Broken or Failed Bag Detection [40 CFR 64, Compliance Assurance Monitoring (CAM)]

D.1.142 Cyclone Failure Detection [40 CFR 64, Compliance Assurance Monitoring (CAM)]

D.1.123 Record Keeping Requirements

- (a) To document compliance with Condition ~~D.1.1(a)~~ and ~~D.1.34~~, the Permittee shall maintain records of the amount of asphalt produced per month.
- (b) ~~To document compliance with Condition D.1.1(e) and D.1.3, the Permittee shall maintain records of the No. 2 fuel oil input or equivalent per month.~~
- (b) **To document compliance with Condition D.1.1, the Permittee shall maintain records of the fuel oil usage from Portable Asphalt Plant, known as W-1, Portable Asphalt Plant, known as W-2 and Stationary Asphalt Plant, known as S-1. Records maintained shall be taken monthly and shall be complete and sufficient to establish compliance with the fuel oil usage limit established in Condition D.1.1.**
- (c) To document compliance with Conditions ~~D.1.67~~, 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 fuel usage limits established in Condition ~~D.1.57~~. Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual usage of No. 2 fuel oil since the last compliance determination period and equivalent SO₂ emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel oil combusted during the period; 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.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (d) To document compliance with Condition D.1.89, the Permittee shall maintain a daily record of visible emission notations of the conveyers, material transfer points, and the hot continuous drum mixer and dryer burner stack exhaust S-1a, the portable warm mix asphalt drum mixer, identified as W1 and the dryer burner stack exhaust W-1a, and the portable warm mix asphalt drum mixer, identified as W2 and the dryer burner stack exhaust W-2a. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the conveyers, material transfer points, and hot continuous drum mixer or dryer burner did not operate that day).
- (e) To document compliance with Condition D.1.910, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the hot continuous drum mixer and dryer burner. (The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the hot continuous drum mixer or dryer burner did not operate that day).
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.134 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.4 ~~(a) and D.1.1 (e)~~ shall be submitted to the addresses 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 "responsible official" as defined by 326 IAC 2-7-1(34).

Comment 2: There are several emission units listed in the permit which are no longer in use at the facility, which include:

- a. Emission Unit S1a: Almix Oil Heater.
- b. Emission Unit S1b: Hawk Star Oil Heater.
- c. Bins #1, #2, #3 and #4.

Response 2: There are no references to these units in the permit; however some references remain within the TSD. No change will be made to the original TSD. The OAQ prefers that the TSD reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. IDEM OAQ confirms that these units no longer exist at the source.

Comment 3: Condition B.8(b), Certification. After "Certification Form" in the first sentence, please add "or its equivalent", as follows:

One (1) certification shall be included, using the attached Certification, **or its equivalent**, with each submittal...

Response 3: IDEM OAQ agrees to this language change and the following change has been made to Condition B.8:

B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (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 the "responsible official" 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, **or its equivalent**, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) The "responsible official" is defined at 326 IAC 2-7-1(34).

Comment 4: Condition B.10(a)(1), Preventive Maintenance Plan. After "individuals", please insert "by job title", as follows:

Identification of the individual(s) **by job title** responsible for inspecting, maintaining, and repairing emission control devices.

Response 4: IDEM OAQ agrees to this language change and the following change has been made to Condition B.10(a)(1):

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (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) **by job title** responsible for inspecting, maintaining, and repairing emission control devices;

Comment 5: Condition B.11(h), Emergency Provisions. The proposed permit includes a new paragraph (h) that requires that the quarterly deviation and monitoring report include a listing of all emergencies. Currently, we are only required to report to the agency all emergencies lasting more than one hour. As we read this new provision, we would also be required to report all emergencies even those that may have lasted less than an hour. We believe that this requirement is excessive and contrary to the intent of the emergency provisions which limited reporting to the agency to occurrences lasting more than one hour. We are also unaware of any specific requirement under 326 IAC 2-7 requiring that all emergencies be reported as part of the quarterly deviation and monitoring report.

We request that this new paragraph be deleted from the proposed permit or amended to read as follows:

The Permittee shall include all emergencies **lasting one (1) hour or more** in the Quarterly Deviation and Compliance Monitoring Report **unless the emergency report made pursuant to Condition B.11(b)(5) included a certification by the “responsible official” as defined by 326 IAC 2-7-1(34).**

Response 5: IDEM OAQ does not agree with the requested language. In order to use an emergency as an affirmative defense it must be reported. IDEM OAQ requires that an emergency lasting more than one (1) hour be reported within four (4) business days, however all emergencies must be reported on the quarterly deviation and monitoring report regardless of their length. No change has been made to the permit as a result of this comment.

Comment 6: Condition B.25, Credible Evidence. This condition should be modified as shown below to be consistent with 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 emission limitation, standard or rule** ~~compliance with the condition of this permit~~ if the appropriate performance or compliance test or procedure had been performed.

Response 6: IDEM OAQ agrees to this language change and the following change has been made to Condition B.25:

B.25 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [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 emission limitation, standard or rule** ~~compliance with the condition of this permit~~ if the appropriate performance or compliance test or procedure had been performed.

Comment 7: Condition C.3, Open Burning: All portions of this rule have not been incorporated in the State Implementation Plan (SIP), and as such are not “federally enforceable”. The following sentence should be added to the end of this condition to reflect this. **“326 IAC 4-1-3(a)(2)(D) and (E); 4-1-3(b)(2)(A)&(B); 4-1-3(b)(3)(D), 4-1-3(b)(4) & (5); 4-1-3(c)(1)(B)-(F); 4-1-3(C)(2)(B); 4-1-3(c)(6); 4-1-3(c)(8); and 4-1-6 are not federally enforceable.”**

Response 7: IDEM OAQ agrees to the language addition to Condition C.3 and has made the following changes:

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. **326 IAC 4-1-3(a)(2)(D) and (E); 4-1-3(b)(2)(A)&(B); 4-1-3(b)(3)(D), 4-1-3(b)(4) & (5); 4-1-3(c)(1)(B)-(F); 4-1-3(C)(2)(B); 4-1-3(c)(6); 4-1-3(c)(8); and 4-1-6 are not federally enforceable.**

Comment 8: Condition C.8(g), Asbestos Abatement Projects. Paragraph (g) should refer to a “licensed” inspector rather than an “accredited” inspector in the paragraph title and first sentence of the condition.

Response 8: IDEM OAQ has changed the language in Condition C.8 to the shorter version available to the sources as follows:

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

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

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

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

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

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

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

~~(A) Asbestos removal or demolition start date;~~

~~(B) Removal or demolition contractor; or~~

~~(C) Waste disposal site.~~

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2254

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 "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(e) Procedures for Asbestos Emission Control~~

~~The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least seventy-five hundredths (0.75) cubic feet on all facility components.~~

~~(f) Demolition and Renovation~~

~~The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).~~

~~(g) Indiana Accredited Asbestos Inspector~~

~~The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.~~

Comment 9: Condition C.9, Performance Testing. We request that the following two paragraphs be added to this section of the permit. The first reflects new provisions recently added to 40 CFR Part 60 which provide for extensions to deadlines for conducting testing required under those subparts. The second paragraph is requested to be added so that permit modifications would not be required in the event a control device is replaced.

(d) *The Permittee may request an extension of a deadline to conduct testing as provided by 40 CFR §§ 60.8, 61.13 or 63.7.*

(e) *In addition to any other testing required by this permit if at any time the Permittee replaces a control device that is used to comply with an emission limitation listed in Section D, then the Permittee shall conduct a performance test no later than one hundred eighty (180) days after installation of the replacement control device in accordance with this Condition C.9.*

Response 9: IDEM OAQ Compliance is working on language to incorporate these changes, currently extensions of testing under federal NSPS, NESHAPs, etc. are already in place and currently SIP testing extension requests are handled on a case by case basis. The requested (d) condition will not be included in this permit. We will incorporate the requested (e) condition; however, keep in mind that this is putting a general condition in the permit to test any time the Permittee replaces a control device that is used to comply with an emission limitation listed in Section D and under the proposed condition the source would be required to test even if testing was not originally required. Condition C.9 has been changed as follows:

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

...

(d) **In addition to any other testing required by this permit if at any time the Permittee replaces a control device that is used to comply with an emission limitation listed in Section D, then the Permittee shall conduct a performance test no later than one hundred eighty (180) days after installation of the replacement control device in accordance with this Condition.**

Comment 10: Condition D.1.2, Sulfur Dioxide: The heading of this condition erroneously references 326 IAC 7-4-1.1, which is the regulatory citation for the repealed Lake County Sulfur Dioxide Emission.

Condition D.1.2, Sulfur Dioxide (a) and (b): The last sentence of paragraph (b) states “326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.” We request that this statement be moved to a separate paragraph so that it is clear that it applies to both paragraphs (a) and (b).

Response 10: IDEM OAQ agrees to the language addition to Condition D.1.2 (now D.1.3) and has made the following changes:

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

- (a) Pursuant to 326 IAC 7-1.1-2, the SO₂ emissions from the dryer burner, identified as Burner, shall not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 fuel oil, equivalent to a sulfur content of five-tenths percent (0.5%) by weight. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.
- (b) Pursuant to 326 IAC 7-1.1-2, the SO₂ emissions from the dryer burners at Portable Plants, identified as W-1 and W-2 shall not exceed five tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 fuel oil, equivalent to a sulfur content of five tenths percent (0.5%) by weight. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

Comment 11: Condition D.1.3 (now D.1.4), VOC BACT limit and D.1.12(b), Record Keeping Requirements. The proposed permit restricts VOC emissions from the S-1 stationary plant to less than 25 tons/year and as such the requirements of 326 IAC 8-1-6 would not apply. This requirement replaces the limitations previously included in the permit related to 326 IAC 8-5-2. We concur that 326 IAC 8-5-2 does not apply to this emission unit. It is unclear, however, what records are required and how compliance is to be shown with the 25 ton/year limit. We would like to discuss what specific records and compliance methods are to be used to demonstrate compliance and believe they should be clearly spelled out in the permit. We would also note that on Page 21 of 23 of Technical Support Document Appendix A, the Limited and Unrestricted Potential to Emit table lists the VOC emissions from Stationary Asphalt Plant S-1 as 62.6 tpy. Since the permit restricts emissions to 25 tpy this would be the PTE for this emission unit, and the table should be updated to reflect this limited PTE.

Response 11: IDEM OAQ has limited the tons of asphalt and lbs of VOC/ton of asphalt at the Stationary Asphalt Plant S-1 only. The source will also be required to maintain records of asphalt usage and a quarterly report form has been added. In addition the Summary on Page 21 of 23 of Technical Support Document Appendix A has been corrected to reflect this change. The following changes have been made as follows:

D.1.4 VOC BACT Minor Limit [326 IAC 8-1-6]

~~The VOC emissions from the S-1 aggregate dryer/mixer shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.~~

Pursuant to 326 IAC 8-1-6, the asphalt production at S-1 shall be limited to 1,533,000 tons per twelve (12) consecutive month period and 0.032 pounds of VOC per ton of asphalt produced with compliance determined at the end of each month. This is equivalent to VOC emissions from the S-1 aggregate dryer/mixer when combined with combustion emissions of less than 25 tons per year.

Compliance with the above limit will limit the VOC emissions from Stationary Plant S-1 to less than 25 tons per twelve (12) consecutive month period and render 326 IAC 8-1-6 not applicable to the emission unit.

D.1.134 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 **and D.1.4** ~~(a) and D.1.1 (e)~~ shall be submitted to the addresses 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 "responsible official" as defined by 326 IAC 2-7-1(34).

No change will be made to the original TSD. The OAQ prefers that the TSD reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	CGS Services, Inc.
Source Location:	2920 E US 52, Morristown, Indiana 46161
County:	Shelby
SIC Code:	2951
Permit Renewal No.:	T 145-22532-00060
Permit Reviewer:	Teresa Freeman

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from CGS Services, Inc. (formerly Caldwell Gravel Sales, Inc. (CGS)) relating to the operation of a hot mix asphalt source, consisting of a sand and gravel operation and hot mix asphalt production.

History

CGS Services, Inc. was issued a Part 70 Operating Permit (T 145-14524-00060, 05056 & 05202) on November 1, 2001. On January 17, 2006, CGS Services, Inc. submitted an application to the OAQ requesting to renew its operating permit.

Source Definition

This source definition from the previous Part 70 Operating Permit was incorporated into this permit as follows:

Caldwell Gravel Sales, Inc. consists of five (5) operations:

- (a) Stationary asphalt plant, identified as S-1 (Plant ID 00060), is located at 2920 E US 52, Morristown, Indiana 46161;
- (b) Portable asphalt plant, identified as W-1 (Plant ID 05056), is located at 2920 E US 52, Morristown, Indiana 46161;
- (c) Portable asphalt plant, identified as W-2 (Plant ID 05202), is located at 2920 E US 52, Morristown, Indiana 46161;
- (d) Stationary sand and gravel operation (Plant ID 00051), is located at 2920 E US 52, Morristown, Indiana 46161; and
- (e) Sanitary landfill (Plant ID 00049) is located at 2920 E US 52, Morristown, Indiana 46161.

The five (5) operations are located on contiguous properties, have different SIC codes and are owned by one (1) company.

The sand and gravel operation was issued a SSOA (S 145-12567-00051) on August 20, 2000. The sanitary landfill was considered a separate source and was issued a separate Part 70 Operating Permit (T 145-7563-00049) on December 29, 1999. The one (1) stationary and two (2) portable asphalt plants were issued a single Part 70 Operating Permit Renewal since they have the same SIC code. In addition, the two (2) portable asphalt plants, identified as W-1 and W-2, have not been moved to a new address at least once during the last permit term. The source will

be issued a single Part 70 Operating Permit Renewal (T 145-22532-00060) and although the portable description will be retained for two (2) asphalt plants, it will only apply to the on-site portability of these units.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

Stationary Asphalt Plant, identified as S-1

- (a) One (1) hot continuous drum mixer, identified as Kiln Hood Outlet, constructed in 2005, equipped with a baghouse, exhausting to Stack S-1a, capacity: 300 tons of asphalt per hour.
- (b) One (1) dryer burner, identified as Burner, burning either natural gas, or No. 2 fuel oil, constructed in 2005, equipped with a baghouse, exhausting to Stack S-1a, rated at 120.0 million British thermal units per hour.

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

Portable Asphalt Plant, identified as W-1

- (c) One (1) portable warm mix asphalt drum mixer, identified as W1, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, capacity: 200 tons of asphalt per hour.
- (d) One (1) dryer burner, burning No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, exhausting to Stack W-1a, rated at 62.0 million British thermal units per hour.
- (e) One (1) warm oil heater, identified as W-1i, burning natural gas or No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, exhausting to Stack W-1i, rated at 0.75 million British thermal units per hour.
- (f) One (1) diesel generator, identified as E34, rated at 205 kilowatts.

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

Portable Asphalt Plant, identified as W-2

- (g) One (1) portable warm mix asphalt drum mixer, identified as W-2, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, capacity: 200 tons of asphalt per hour.
- (h) One (1) dryer burner, burning No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, equipped with a cyclone, exhausting to Stack W-2a, rated at 62.0 million British thermal units per hour.
- (i) One (1) warm oil heater, identified as W-2i, burning natural gas or No. 2 fuel oil, constructed in 1967, purchased in 1994, modified and began operation in 1998, exhausting to Stack W-2i, rated at 0.75 million British thermal units per hour.
- (j) One (1) diesel generator, identified as E33, rated at 175 kilowatts.

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

Unpermitted Emission Units and Pollution Control Equipment

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

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Combustion source flame safety purging on startup.
- (b) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing three thousand five hundred (3500) gallons per day or less.
- (c) Equipment used exclusively for the following: Packaging lubricants and greases, filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.
- (d) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.
- (e) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
[326 IAC 6-5]
- (f) On-site fire and emergency response training approved by the department.
- (g) One (1) No. 2 fuel oil storage tank, identified as Heattech, installed in 1996, exhausting to Stack St2, capacity: 20,000 gallons of fuel oil.
- (h) One (1) liquid asphalt storage tank, identified as S1c, installed in 1996, exhausting to Stack St1, capacity: 9 gallons.
- (i) Stockpiles: #5 Stone, #9 Stone, #11 Stone, Sand, #11 Gravel and #12 Dolomite.
- (j) One (1) propane-fired space heater, rated at 0.375 million British thermal units per hour.
- (k) One (1) kerosene-fired space heater, rated at 0.200 million British thermal units per hour.

Stationary Plant, Identified as S-1

- (l) One (1) bucket elevator. [326 IAC 6-3-2]
- (m) Two (2) silos, identified as Silo 1 and Silo 2. [326 IAC 6-3-2]
- (n) Five (5) storage bins, throughput capacity: 175 tons per hour each. [326 IAC 6-3-2]

Portable Plants W-1 and W-2

- (o) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]
- (p) Any of the following structural steel and bridge fabrication activities: using 80 tons or less of welding consumables. [326 IAC 6-3-2]

Existing Approvals

Since the issuance of the Part 70 Operating Permit T 145-14524-00060, 05056 & 05202 on November 1, 2001, the source has constructed and has been operating under the following approvals as well:

- (a) Significant Source Modification 145-20820-00060, 05056 & 05202, issued on May 24, 2005;
- (b) Significant Permit Modification 145-20917-00060, 05056 & 05202, issued on June 10, 2005;
- (c) Administrative Amendment 145-20495-00060, 05056 & 05202, issued on August 2, 2005; and
- (d) Administrative Amendment 145-22568-00060, 05056 & 05202, issued February 13, 2006.

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

The following terms and conditions from previous approvals have been revised in this Part 70 Operating Permit Renewal:

T 145-14524-00060, 05056 & 05202, issued on November 1, 2001
SPM 145-20917-00060, 05056 & 05202, issued on June 10, 2005

Conditions D.1.1, D.1.2, parts of D.1.11, D.1.12, D.2.1, D.2.2, parts of D.2.11 D.2.12, D.3.1, D.3.3, parts of D.3.15 and D.3.16 contained the requirements of NSPS Subpart I.

Reason Revised:

IDEM, OAQ has incorporated the requirements of NSPS Subpart I in Section E.1. Only the sections of the NSPS Subpart I that apply have been directly abstracted from the rules.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 Operating Permit Renewal:

- (a) All construction conditions from all previously issued permits.

Reason not incorporated:

All facilities previously permitted have already been constructed; therefore, the construction conditions are no longer necessary as part of the operating permit. Any previously permitted facilities that have not yet been constructed need new pre-construction approval before beginning construction.

- (b) SPM 145-20917-00060, 05056 & 05202, issued on June 10, 2005
 - (1) Condition D.4.1(a): The fuel oil no. 2 usage from Portable Asphalt Plant, known as W-1, Portable Asphalt Plant, known as W-2 and Stationary Asphalt Plant, known as S-1, shall be limited to 4,211,847 gallons per 12 consecutive month period with compliance determined at the end of each month. This usage limit is required to limit the potential to emit of nitrogen oxides to less than 100 tons per

12 consecutive month period and the sulfur dioxide to less than 250 tons per twelve consecutive month period.

- (2) Condition D.4.1 (b): The natural gas and fuel oil No. 2 usage from Portable Asphalt Plant, known as W-1, Portable Asphalt Plant, known as W-2 and Stationary Asphalt Plant, known as S-1 shall have the following equivalency:

For every thousand gallon of fuel oil no. 2 with a maximum sulfur content of 0.45% shall be equivalent to 117 million cubic feet of natural gas.

Reason Not Incorporated

Since each of the portable plants has a potential to emit NO_x and VOC of less than one hundred (100) tons per year each, the limiting pollutant besides CO which requires an asphalt production limit, is SO₂, not NO_x. In addition, the sulfur content of the No. 2 fuel oil was limited for Portable Plants W-1 and W-2 to 0.1%.

- (c) SPM 145-20917-00060, 05056 & 05202, issued on June 10, 2005

Condition D.3.2: Limited PM and PM₁₀ emissions from the drum mixer and dryer burner at Stationary Asphalt Plant S-1 to 0.18 pounds per ton of asphalt produced, equivalent to less than two hundred fifty (250) tons of PM and PM₁₀ per year.

Reason Not Incorporated:

Limiting the PM and PM₁₀ emissions from the Stationary Asphalt Plant, identified as S-1, does not retain the minor PSD status of the entire source, including Portable Asphalt Plants, identified as W-1 and W-2. Therefore, the PM and PM₁₀ emission rates were revised.

- (d) SPM 145-20917-00060, 05056 & 05202, issued on June 10, 2005

Condition D.3.4: Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the hot continuous mixer shall not exceed 63 pounds per hour when operating at a process weight rate of 300 tons per hour.

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

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

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

Reason Not Incorporated:

The NSPS Subpart I PM emission limit of 0.04 grains per dry standard cubic foot is more stringent than the 326 IAC 6-3-2, PM emission limit of 63.0 pounds per hour. Therefore the limit from 326 IAC 6-3-2 has not been incorporated.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See pages 1 to 23 of Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Shelby County

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective October 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph counties as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan and Shelby counties as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Shelby County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5

Shelby County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules is July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.

(c) Other Criteria Pollutants

Shelby County has been classified as attainment or unclassifiable in Indiana for SO₂, CO and PM₁₀. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	86,060
PM ₁₀	20,001
SO ₂	304
VOC	155
CO	423
NO _x	268

HAPs	tons/year
Benzene	0.015
Toluene	0.006
Worst Case Single HAP (Xylene)	9.51
Propylene	0.041
1,3-Butadiene	0.0006
Formaldehyde	0.018
Acetylaldehyde	0.012
Acrolein	0.002
Total PAH	0.002
Other Asphalt Production HAPs	15.1
Total	24.7

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM₁₀, SO₂, NO_x, VOC and CO are equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year.
- (c) Fugitive Emissions
This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, however, there is an applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions are counted toward the determination of PSD applicability.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

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 federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/Emission Unit	Potential to Emit (tons/year)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Stationary Asphalt Plant (S-1) Hot Continuous Drum Mixer (Kiln Hood Outlet) including the Dryer Burner (Burner), Hot Oil Heaters (S1a and S1b), Conveying, Handling, Screening, Storage, Load-Out, Silo Filling, & Unpaved Roads				<25		<50	
Portable Asphalt Plant (W-1) Warm Mix Drum Mixer (W1) including Dryer Burner, Warm Oil Heater (W-1i), Diesel Generator (E 34), Conveying, Handling, Screening, Storage, Load-Out, Silo Filling, & Unpaved Roads	less than 247, Combined limit for S-1, W-1 and W-2	less than 247, Combined limit for S-1, W-1 and W-2	less than 247, Combined limit for S-1, W-1 and W-2	44.8	less than 247, Combined limit for S-1, W-1 and W-2	<100	Single less than 10 & Combination less than 25 Combined limit for S-1, W-1 and W-2
Portable Asphalt Plant (W-2) Warm Mix Drum Mixer (W2) including Dryer Burner, Warm Oil Heater (W-2i) Diesel Generator (E 33), Conveying, Handling, Screening, Storage, Load-Out, Silo Filling, & Unpaved Roads				44.3			
Other Insignificant Activities	3	3	1	3	3	3	0.5
Total	Less than 250	Less than 250	Less than 250	Less than 250	Less than 250	Less than 250	Less than 10/25 Pb <5

- (a) This existing stationary source is not major for PSD because the emissions of each of the attainment criteria pollutants are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.

Federal Rule Applicability

- (a) SPM 145-20917-00060, 05056 & 05202 determined that 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to hot continuous drum mixer, identified as Kiln Hood Outlet, at Stationary Asphalt Plant, identified as S-1, since it was:
- (1) constructed at an existing major source for which a Part 70 Operating Permit had already been issued;
 - (2) is subject to an emission limitation or standard,
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard,
 - (4) has a potential to emit PM and PM₁₀ before controls equal to or greater than the major source threshold for the pollutant involved.
- (b) The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit with a control device and specified pollutant subject to CAM. Only PM and PM₁₀ are addressed for the hot continuous drum mixer (Kiln Hood Outlet) at Stationary Asphalt Plant, identified as S-1, and the warm mix asphalt drum mixers (W1 and W2) at Portable Plants W-1 and W-2, respectively, with the potential to emit more than one hundred (100) tons per year, the major source threshold.

Emission Unit / Pollutant	Control Device Used (ID)	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Hot Continous Drum Mixer (Kiln Hood Outlet) / PM	Baghouse	Yes	36,792	14.7	100	Yes	No
Hot Continous Drum Mixer (Kiln Hood Outlet) / PM ₁₀	Baghouse	Yes	8,541	3.42	100	Yes	No
Warm Mix Asphalt Drum Mixer (W1) / PM	Cyclone	Yes	24,528	24.5	100	Yes	No
Warm Mix Asphalt Drum Mixer (W1) / PM ₁₀	Cyclone	Yes	5,694	5.69	100	Yes	No
Warm Mix Asphalt Drum Mixer (W2) / PM	Cyclone	Yes	24,528	24.5	100	Yes	No

Emission Unit / Pollutant	Control Device Used (ID)	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Warm Mix Asphalt Drum Mixer (W2) / PM ₁₀	Cyclone	Yes	5,694	5.69	100	Yes	No

- (1) SPM 145-20917-00060, 05056 & 05202 determined that 40 CFR 64.2, Compliance Assurance Monitoring (CAM), is not applicable to dryer burner, identified as Burner, at the Stationary Asphalt Plant, identified as S-1, since it does not use a control device for NO_x, as defined in 40 CFR 64.1, to comply with an emission limitation or standard.
- (2) Since existing emission units at Portable Asphalt Plants, identified as W-1 and W-2, do not use a control device to control SO₂, NO_x, CO, or VOC as defined in 40 CFR 64.1, to comply with an emission limitation or standard, the requirements of 40 CFR Part 64, CAM, are not applicable to any facility for these pollutants at the two (2) portable asphalt plants as part of this Part 70 Permit Renewal.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the drum mixers at the three (3) plants for PM and PM₁₀. A CAM Plan has been submitted and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

- (c) The stationary hot asphalt mix plant, identified as S-1, and the two (2) portable hot mix asphalt plants, identified as W1 and W2, are subject to the New Source Performance Standard for Hot Mix Asphalt Facilities (40 CFR Part 60.90, Subpart I), which is incorporated by reference as 326 IAC 12. The stationary asphalt plant is subject to the requirements of Subpart I because it was constructed in 2005 which is after the Subpart I applicability date of June 11, 1973. The two (2) portable asphalt plants are also subject to the requirements of Subpart I because they were both modified and/or increased capacity in 1998 which is after the Subpart I applicability date of June 11, 1973.

Nonapplicable portions of the NSPS will not be included in the permit. The stationary and two (2) portable hot mix asphalt plants are subject to the following portions of 40 CFR 60, Subpart I:

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

The provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12, apply to the hot mix asphalt plant except when otherwise specified in 40 CFR Part 60, Subpart I.

- (d) The requirements of the New Source Performance Standard for Nonmetallic Mineral Processing Plants, 40 CFR Part 60.670, Subpart OOO, and 326 IAC 12, are not included in this permit because the source does not contain a crusher or grinding mill.
- (e) The requirements of the New Source Performance Standard, 40 CFR Part 60.110b, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels, apply to

tanks constructed after July 23, 1984, with a storage capacity between 75 cubic meters (19,812.9 gallons) and 151 cubic meters (39,890 gallons) and that store a liquid with a maximum true vapor pressure greater than 15.0 kilopascals.

- (1) The No. 2 fuel oil storage tank, identified as Heattech, installed in 1996, with a capacity of 20,000 gallons of fuel oil has a capacity within the regulated range. However, this tank does not store a liquid with a maximum true vapor pressure greater than 15 kilopascals. Therefore, the requirements of the NSPS, 40 CFR 60, Subpart Kb, do not apply and are not included in the permit for this source.
 - (2) The liquid asphalt storage tank installed in 1996 is not subject to NSPS, 326 IAC 12, (40 CFR Part 60.116b, Subpart Kb) because it does not store a liquid with a maximum true vapor pressure greater than 15.0 kilopascals and its storage capacity is less than 75 cubic meters (19,812.9 gallons). Therefore, the requirements of the NSPS, 40 CFR 60, Subpart Kb, are not included in the permit for this source.
- (f) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

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

This source consists of one (1) Stationary Asphalt Plant, identified as S-1 and two (2) Portable Asphalt Plants, identified as W-1 and W-2, collocated at 11380 North 300 East, Morristown, Indiana 46161. The unrestricted potential to emit of PM, PM₁₀, SO₂, NO_x, and CO is greater than two hundred fifty (250) tons per year and the unrestricted potential to emit VOC is less than two hundred fifty (250) tons per year for the entire source. When the Stationary Asphalt Plant burned only natural gas, the unrestricted potential to emit from the entire source will be less than two hundred fifty (250) tons of NO_x per year.

Therefore, in order for the stationary and two (2) portable plants to remain a minor source under 326 IAC 2-2, the emissions of PM, PM₁₀, SO₂, and CO must be limited to less than two hundred fifty (250) tons per year.

The Part 70 Operating Permit (T 145-14524-00060, 05056 & 05202) issued on November 1, 2001 limited the sulfur content of the No. 2 fuel oil for the Portable Plants W-1 and W-2 in Conditions D.1.4 and D.2.4 to less than 0.1% sulfur. However, pursuant to SPM 145-20917-00060, 05056 & 05202, Condition D.4.1 specified the sulfur content of No. 2 fuel oil of 0.45% in the equivalency and the TSD on page 7 of 20 stated that the distillate oil had a maximum sulfur content of 0.45%.

Therefore, the following limits will ensure that the requirements of 326 IAC 2-2 (PSD) do not apply.

- (a) The entire source, including Portable Asphalt Plant, identified as W-2, Stationary Asphalt Plant, identified as S-1 and Portable Asphalt Plant, identified as W-1, shall produce less than 3,569,230 tons of asphalt per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The CO emissions from the aggregate dryer/mixer shall be less than 0.130 pounds per ton of asphalt produced. Compliance with this limit, combined with the unrestricted potential to emit CO from the two (2) diesel generators, identified as E34 and E33, at Portable Asphalt Plants, identified as W-1 and W-2, shall limit the CO emissions from the entire source to less than two hundred fifty (250) tons per year and renders the requirements of 326 IAC 2-2 (PSD) not applicable.

- (c) Particulate emissions from the aggregate dryer/mixer shall be limited to less than 0.0933 pounds per ton of asphalt produced. Compliance with this limit, combined with the unrestricted potential to emit PM from the two (2) diesel generators, identified as E34 and E33, at Portable Asphalt Plants, identified as W-1 and W-2, the source-wide conveying/handling, screening, loadout, silo filling, oil heaters and dryer burner shall limit PM emissions from the entire source to less than two hundred fifty (250) tons per year and render the requirements of 326 IAC 2-2 not applicable.
- (d) PM_{10} emissions from the aggregate dryer/mixer shall be limited to less than 0.1185 pounds per ton of asphalt produced, including both filterable and condensable fractions. Compliance with this limit, combined with the unrestricted potential to emit PM_{10} from the two (2) diesel generators, identified as E34 and E33, at Portable Asphalt Plants, identified as W-1 and W-2, the source-wide conveying/handling, screening, loadout, silo filling, oil heaters and dryer burner shall limit PM_{10} emissions from the entire source to less than two hundred fifty (250) tons per year and render the requirements of 326 IAC 2-2 not applicable.
- (e) The input of No. 2 fuel oil to the hot oil heaters and dryer/burners at Portable Asphalt Plant, identified as W-2, Stationary Asphalt Plant, identified as S-1, and Portable Asphalt Plant, identified as W-1, shall not exceed a total of 7,681.377 kilogallons per twelve (12) consecutive month period with compliance determined at the end of each month.
 - (1) For purposes of determining compliance based on sulfur dioxide (SO_2) emissions, each kilogallon of fuel oil at 0.1% sulfur content shall be equivalent to 0.222 kilogallon of fuel oil at 0.45% sulfur content.
 - (2) For purposes of determining compliance based on SO_2 emissions, each million cubic feet of natural gas shall be equivalent to 0.0094 kilogallons of fuel oil at 0.45% sulfur content.

Compliance with this limit, combined with the unrestricted potential to emit SO_2 from the two (2) diesel generators, identified as E34 and E33, at Portable Asphalt Plants, identified as W-1 and W-2, shall limit SO_2 emissions from the entire source to less than two hundred fifty (250) tons per year and render the requirements of 326 IAC 2-2 not applicable.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2005 and every three (3) years after because the source is located in Shelby County has a potential to emit PM, PM_{10} and VOC of less than two hundred fifty (250) tons per year and greater than one hundred (100) tons per year but less than 2,500 tons of CO, NO_x and SO_2 . Therefore, the next emission statement for this source must be submitted by July 1, 2008. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity at Stationary Asphalt Plant and Portable Asphalt Plants, identified as S-1, W-1 and W-2, shall meet the following, unless otherwise stated in this permit:

- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

326 IAC 6-5 (Fugitive Particulate Emissions Limitations)

This rule requires a fugitive dust plan to be submitted. The plan was submitted reviewed, and approved on May 14, 1999, and consists of applying water to unpaved and paved roads as well as storage piles on an as-needed basis and restricting the speed of trucks to 15 miles per hour for stationary plant S-1 and the two (2) portable plants W-1 and W-2.

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

Pursuant to 326 IAC 6-3-1(c)(5), if a more stringent limit is established by 326 IAC 12 concerning New Source Performance Standards, then the limitation contained in 326 IAC 6-3 shall not apply. Therefore, since each of the three (3) asphalt plants, identified as S-1, W-1 and W-2, are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I), the requirements of 326 IAC 6-3-2 are not applicable to the mixer/dryers.

326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)

- (a) The dryer burner, identified as Burner at Stationary Plant S-1, firing No. 2 distillate oil as backup fuel, rated at 120 million British thermal units per hour, is subject to the requirements of 326 IAC 7-1.1, since the potential to emit SO₂ is greater than twenty-five (25) tons per year. Pursuant to this rule, sulfur dioxide emissions from the combustion of No. 2 distillate fuel oil shall not exceed 0.5 pounds per million British thermal units heat input.

This is the equivalent of 0.5 percent sulfur content at a higher heating value of 140,000 British thermal units per gallon.

- (b) The dryer burners at Portable Plants, identified as W-1 and W-2, firing No. 2 distillate oil rated at 62 million British thermal units per hour each, are subject to the requirements of 326 IAC 7-1.1, since the potential to emit SO₂ is greater than twenty-five (25) tons per year each. Pursuant to this rule, sulfur dioxide emissions from the combustion of No. 2 distillate fuel oil shall not exceed 0.5 pounds per million British thermal units heat input

This is the equivalent of 0.5 percent sulfur content at a higher heating value of 140,000 British thermal units per gallon.

- (c) Each of the oil heaters at the three (3) plants has a potential to emit of SO₂ less than twenty-five (25) tons per year each. Therefore, the oil heaters are not subject to the requirements of this rule.

326 IAC 7-2-1 (Sulfur Dioxide Compliance: reporting and methods to determine compliance)

Reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate shall be provided upon request to the Office of Air Quality.

State Rule Applicability – Individual Facilities

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable PM emission rate from the nine (9) storage bins, one (1) bucket elevator, and two (2) silos shall be limited by the following:

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

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

or

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

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

326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)

This rule requires levels of sulfur dioxide emissions from the combustion of No. 2 distillate fuel oil not to exceed 0.5 pounds per million British thermal units of heat input (the equivalent of 0.5% sulfur content at a higher heating value of 0.140 MMBtu/gal and a maximum heat input rate of 85 million British thermal units per hour).

This rule also requires levels of sulfur dioxide emissions from the combustion of residual waste oil not to exceed 1.6 pounds per million British thermal units of heat input (the equivalent of 1.02% sulfur content at a higher heating value of 0.136 MMBtu/gal and a maximum heat input rate of 85 million British thermal units per hour).

326 IAC 7-2-1 (Sulfur Dioxide Compliance: reporting and methods to determine compliance)

Reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate shall be provided upon request to the Office of Air Quality.

326 IAC 8-1-6 (New facilities; general reduction requirements)

(a) The Stationary Asphalt Plant was constructed after January 1, 1980 applicability date for this rule. The VOC emissions from the S-1 aggregate dryer/mixer shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the above limit will limit the VOC emissions from Stationary Plant S-1 to less than 25 tons per twelve (12) consecutive month period and render 326 IAC 8-1-6 not applicable to the emission unit.

(b) The portable asphalt plants, identified as W-1 and W-2 were constructed prior to the January 1, 1980 applicability date for this rule. Therefore, the portable asphalt plants, identified as W-1 and W-2 are not subject to the requirements of 326 IAC 8-1-6.

326 IAC 8-5-2 (Miscellaneous Operations: asphalt paving)

The requirements of 326 IAC 8-5-2 (Miscellaneous Operations: asphalt paving) are not included in this permit because the source does not use cutback asphalt or emulsified asphalt and therefore, are not applicable.

326 IAC 12-1 (New Source Performance Standards)

The hot mix asphalt plants are each required to comply with the requirements of 40 CFR 60.90, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, as described in the "Federal Rule Applicability" section of this TSD.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must

develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

- (a) The compliance determination requirements applicable to this source are as follows: The has applicable compliance determination conditions as specified below:

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
Hot Continuous Drum Mixer (Kiln Hood Outlet)	Baghouse	By August 30, 2011	PM	Once every 5 years	0.04 grains/dscf (Subpart I)
Portable Warm Mix Asphalt Drum Mixer (W1)	Cyclone	By November 15, 2011	PM	Once every 5 years	0.04 grains/dscf (Subpart I)
Portable Warm Mix Asphalt Drum Mixer (W2)	Cyclone	By November 15, 2011	PM	Once every 5 years	0.04 grains/dscf (Subpart I)

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

Control	Parameter	Frequency	Range	Excursions and Exceedances
Hot Continuous Drum Mixer (Kiln Hood Outlet) baghouse	Water Pressure Drop	Daily	3.0 to 7.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Portable Warm Mix Asphalt Drum Mixer (W1) Cyclone	Water Pressure Drop	Daily	3.0 to 7.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Portable Warm Mix Asphalt Drum Mixer (W2) Cyclone	Water Pressure Drop	Daily	3.0 to 7.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	

These monitoring conditions are necessary because the baghouse for the hot continuous drum mixer (Kiln Hood Outlet) and shared cyclone for the portable warm mix asphalt drum mixers (W1 and W2) must operate properly to ensure compliance with NSPS Subpart I, 326 IAC 2-2, 326 IAC 2-7 and 40 CFR 64 (CAM).

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on January 17, 2006.

Conclusion

The operation of this hot mix asphalt source shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T 145-22532-00060.

Appendix A: Emission Calculations

Company Name: CGS Services, Inc.
 Plant Location: 11380 North 300 East, Morristown, Indiana 46161
 County: Shelby
 Permit Number: T 145-22532-00060
 Date: October 10, 2007
 Reviewer: Teresa Freeman

Stationary Asphalt Plant S-1

I. Potential Emissions

A. Plant emissions before controls

Sulfur Content limited to 0.45% pursuant to Condition D.4.1 of SPM 145-20917-00060, 05056 & 05202, issued May 24, 2005

2 Hot Oil Heaters on Oil rated at 0.75 mmBtu/hr each, identified as S1a and S1b
 (oil/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by #2 distillate fuel oil @

0.45 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	1.50 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	140000 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>0.094</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.155</u> tons/yr
S O x:	63.9 lbs/1000 gal =	<u>3.00</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>0.939</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.016</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.235</u> tons/yr

2 Hot Oil Heaters on Gas rated at 0.75 mmBtu/hr each, identified as S1a and S1b
 (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	1.50 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) = (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.012</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.050</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.004</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>0.657</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.036</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>0.552</u> tons/yr

Dryer Burner, identified as Burner (natural gas)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	120.0 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) = (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>1.00</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>3.99</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.315</u> tons/yr
N O x:	190.0 lbs/MMcf =	<u>99.9</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>2.89</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>44.2</u> tons/yr

Hot Continuous Drum Mixer, identified as Kiln Hood Outlet (natural gas)

The following calculations determine the amount of emissions created by natural gas combustion and dryer, based on 8760 hours of use, AP-42 Ch. 11.1, Tables 11.1-7 and 8

Pollutant:	<u>300</u> tons/hr * 8760 hrs/yr	* Ef (lbs/MMcf) = (tons/yr)	(tons/yr)
	2000 lbs/ton		
S O x:	0.0034 lbs/ton =		<u>4.47</u> tons/yr
N O x:	0.026 lbs/ton =		<u>34.2</u> tons/yr
V O C:	0.032 lbs/ton =		<u>42.0</u> tons/yr
C O:	0.130 lbs/ton =		<u>170.8</u> tons/yr

Dryer Burner, identified as Burner (#2 oil)

The following calculations determine the amount of emissions created by #2 distillate fuel oil @ 0.45 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>120.0</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)	
	<u>140000</u> Btu/gal * 2000 lbs/ton		
P M:	2.0 lbs/1000 gal =		<u>7.51</u> tons/yr
PM-10:	3.3 lbs/1000 gal =		<u>12.4</u> tons/yr
S O x:	63.9 lbs/1000 gal =		<u>239.9</u> tons/yr
N O x:	24.0 lbs/1000 gal =		<u>90.1</u> tons/yr
V O C:	0.20 lbs/1000 gal =		<u>0.751</u> tons/yr
C O:	5.0 lbs/1000 gal =		<u>18.8</u> tons/yr

Hot Continuous Drum Mixer, identified as Kiln Hood Outlet (#2 oil)

The following calculations determine the amount of emissions created by No. 2 fuel oil combustion and dryer, based on 8760 hours of use, AP-42 Ch. 11.1, Tables 11.1-7 and 8

Pollutant:	<u>300</u> tons/hr * 8760 hrs/yr	* Ef (lbs/MMcf) = (tons/yr)	(tons/yr)
	2000 lbs/ton		
S O x:	0.0110 lbs/ton =		<u>14.5</u> tons/yr
N O x:	0.055 lbs/ton =		<u>72.3</u> tons/yr
V O C:	0.032 lbs/ton =		<u>42.0</u> tons/yr
C O:	0.130 lbs/ton =		<u>170.8</u> tons/yr

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

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and AP-42, Chapter 11.1, Table 11.1-3, rev. 12/00

P M:	28 lbs/ton x	<u>300</u> tons/hr x	8760 hrs/yr =	<u>36792</u> tons/yr
		2000 lbs/ton		
P M-10:	6.5 lbs/ton x	<u>300</u> tons/hr x	8760 hrs/yr =	<u>8541</u> tons/yr
		2000 lbs/ton		
Lead:	0.0000033 lbs/ton x	<u>300</u> tons/hr x	8760 hrs/yr =	<u>0.004</u> tons/yr
		2000 lbs/ton		
HAPs:	0.0076 lbs/ton x	<u>300</u> tons/hr x	8760 hrs/yr =	<u>9.99</u> tons/yr
		2000 lbs/ton		
Worst Case Individual HAP:	0.0031 lbs/ton x	<u>300</u> tons/hr x	8760 hrs/yr =	<u>4.07</u> tons/yr
		2000 lbs/ton		

	HAPs Emission Factors (lbs/ton)	
	Natural Gas	Fuel Oil
Total	0.005	0.009
Worst Case Individual	0.0031	0.0031
Lead	0.00000062	0.000015

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

**** conveying / handling ****

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$E_f = .0032 \frac{(U/5)^{1.3} \cdot k}{(M/2)^{1.4}}$$

where k = 1 (particle size multiplier)
 U = 12 mph mean wind speed (worst case)
 M = 5.0 % moisture

0.003 lbs/ton

PM : 0.003 lbs/ton x 300.0 tons/hr x 8760 hrs/yr = 3.64 tons/yr
 2000 lbs/ton

P M-10: 10% of PM = 0.364 tons/yr

Screening

PM: 300.0 tons/hr x 0.0315 lbs/ton / 2000 lbs/ton x 8760 hrs/yr = 41.4 tons/yr

AP-42 Ch.11.19.2

P M-10: 10% of PM = 4.14 tons/yr

**** unpaved roads ****

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

6.29 trip/hr x
0.1 mile/trip x
 2 (round trip) x
 8760 hr/yr = 11020.08 miles per year

PM

$$E_f = k \left[\frac{(s/12)^{0.7} [(W/3)^b]}{5.48} \right]$$

where k = 4.9 (particle size multiplier for PM)
 s = 4.8 mean % silt content of unpaved roads
 b = 0.45 Constant for PM-10 and PM-30 or TSP
 W = 24 tons average vehicle weight
 M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

E = 5.48 lb/mi x 11020.08 mi/yr = 30.17 tons/yr
 2000 lb/ton

Taking natural mitigation due to precipitation into consideration:

E_{ext} = E * [(365-p)/365] = 19.84 tons/yr
 where p = 125 days of rain greater than or equal to 0.01 inches(see Fig. 13.2.2-1)

PM-10

$$E_f = k \left[\frac{(s/12)^{0.9} [(W/3)^b]}{1.68} \right]$$

where k = 1.5 (particle size multiplier for PM-10)
 s = 4.8 mean % silt content of unpaved roads
 b = 0.45 Constant for PM-10 and PM-30 or TSP
 W = 24 tons average vehicle weight
 M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

E = 1.68 lb/mi x 11020.08 mi/yr = 9.24 tons/yr
 2000 lb/ton

Taking natural mitigation due to precipitation into consideration:

E_{ext} = E * [(365-p)/365] = 6.07 tons/yr
 where p = 125 days of rain greater than or equal to 0.01 inches(see Fig. 13.2.2-1)

All Trucking

Total PM: 19.84 tons/yr
 Total PM-10: 6.07 tons/yr

**** storage ****

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8760 hours of use and AP-42, Ch 11.2.3.

$$E_f = 1.7 \cdot (s/1.5) \cdot (365-p) / 235 \cdot (f/15)$$

= 1.74 lbs/acre/day for sand
 = 1.16 lbs/acre/day for stone
 = 1.16 lbs/acre/day for slag
 = 1.16 lbs/acre/day for gravel
 = 1.16 lbs/acre/day for RAP

where s = 1.5 % silt for sand
 s = 1.0 % silt of stone
 s = 1.0 % silt of slag
 s = 1.0 % silt of gravel
 s = 1.0 % silt for RAP
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % of wind greater than or equal to 12 mph

$$E_p (\text{storage}) = E_f \cdot sc \cdot (20 \text{ cuft/ton}) \cdot (365 \text{ days/yr})$$

$$\frac{(2000 \text{ lbs/ton}) \cdot (43560 \text{ sqft/acre}) \cdot (25 \text{ ft})}{}$$

= 0.002 tons/yr for sand
 = 0.006 tons/yr for stone
 = 0.000 tons/yr for slag
 = 0.000 tons/yr for gravel
 = 0.000 tons/yr for RAP

Total PM: **0.008** tons/yr

where sc = **0.35**,000 tons storage capacity for sand
 sc = **1.65**,000 tons storage capacity for stone
 sc = **0**,000 tons storage capacity for slag
 sc = **0**,000 tons storage capacity for gravel
 sc = **0**,000 tons storage capacity for RAP

P M-10: 35% of PM = 0.001 tons/yr for sand
 35% of PM = 0.002 tons/yr for stone
 35% of PM = 0.000 tons/yr for slag
 35% of PM = 0.000 tons/yr for gravel
 35% of PM = 0.000 tons/yr for RAP

Total PM-10: **0.003** tons/yr

**** Load Out and Yard Silo Filling ****

The following calculations determine the amount of emissions created by material handling of liquid asphalt based on 8760 hours of use and AP-42, Ch 11.1, Table 11.1-14, 15 and 16

Load Out

PM Ef = 0.000181 + 0.00141(-V)e^{-(0.0251)(T + 460) - 20.43} 0.000522 lbs/ton
 TOC Ef = 0.0172(-V)e^{-(0.0251)(T + 460) - 20.43} 0.004159 lbs/ton
 CO Ef = 0.00558(-V)e^{-(0.0251)(T + 460) - 20.43} 0.001349 lbs/ton
 HAP Ef = ((0.00141(-V)e^{-(0.0251)(T + 460) - 20.43})(5.93%+1.18%)) + TOC Ef x 1.5% 0.000062 lbs/ton

where V = -0.5 (asphalt volatility)
 T = 325 (mix temperature in degrees Fahrenheit)

P M : 0.000522 lbs/ton x 300.0 tons/hr x 8760 hrs/yr = 0.686 tons/yr
 2000 lbs/ton
 P M 10 : 0.000522 lbs/ton x 300.0 tons/hr x 8760 hrs/yr = 0.686 tons/yr
 2000 lbs/ton
 VOC : 0.004159 lbs/ton x 300.0 tons/hr x 8760 hrs/yr = 5.46 tons/yr
 2000 lbs/ton
 CO : 0.001349 lbs/ton x 300.0 tons/hr x 8760 hrs/yr = 1.77 tons/yr
 2000 lbs/ton
 Total HAPs : 0.000062 lbs/ton x 300.0 tons/hr x 8760 hrs/yr = 0.082 tons/yr
 2000 lbs/ton

Silo Filling

$$\begin{aligned}
 \text{PM Ef} &= 0.000332 + 0.00105(-V)e^{-(0.0251)(T + 460) - 20.43} && \underline{\underline{0.000586}} \text{ lbs/ton} \\
 \text{TOC Ef} &= 0.0504(-V)e^{-(0.0251)(T + 460) - 20.43} && \underline{\underline{0.012187}} \text{ lbs/ton} \\
 \text{CO Ef} &= 0.00488(-V)e^{-(0.0251)(T + 460) - 20.43} && \underline{\underline{0.001180}} \text{ lbs/ton} \\
 \text{HAP Ef} &= (0.00105(-V)e^{-(0.0251)(T + 460) - 20.43}) * 11.4\% + \text{TOC Ef} * 1.3\% && \underline{\underline{0.000158}} \text{ lbs/ton}
 \end{aligned}$$

where V = -0.5 (asphalt volatility)
T = 325 (mix temperature in degrees Fahrenheit)

PM :	<u>0.000586</u> lbs/ton x	<u>300.0</u> tons/hr x	<u>8760</u> hrs/yr =	<u>0.770</u> tons/yr	
		2000 lbs/ton			
PM 10 :	<u>0.000586</u> lbs/ton x	<u>300.0</u> tons/hr x	<u>8760</u> hrs/yr =	<u>0.770</u> tons/yr	
		2000 lbs/ton			
VOC :	<u>0.012187</u> lbs/ton x	<u>300.0</u> tons/hr x	<u>8760</u> hrs/yr * 94.0%		<u>15.1</u> tons/yr
		2000 lbs/ton			
CO :	<u>0.001180</u> lbs/ton x	<u>300.0</u> tons/hr x	<u>8760</u> hrs/yr =	<u>1.55</u> tons/yr	
		2000 lbs/ton			
Total HAPs :	<u>0.000158</u> lbs/ton x	<u>300.0</u> tons/hr x	<u>8760</u> hrs/yr =	<u>0.208</u> tons/yr	
		2000 lbs/ton			

Emissions before controls (combustion plus production) are as follows (fuel indicated is fuel used at dryer):

natural gas		#2 oil	
P M:	<u>36859</u> tons/yr	P M:	<u>36866</u> tons/yr
P M-10:	<u>8557</u> tons/yr	P M-10:	<u>8566</u> tons/yr
S O x:	<u>7.47</u> tons/yr	S O x:	<u>242.9</u> tons/yr
N O x:	<u>100.8</u> tons/yr	N O x:	<u>91.0</u> tons/yr
V O C:	<u>62.6</u> tons/yr	V O C:	<u>62.6</u> tons/yr
C O:	<u>174.7</u> tons/yr	C O:	<u>174.7</u> tons/yr
Lead:	<u>0.004</u> tons/yr	Lead:	<u>0.004</u> tons/yr
HAPs:	<u>10.3</u> tons/yr	HAPs:	<u>10.3</u> tons/yr

B. Plant emissions after controls

PM and PM-10 control = 99.96%

dryer combustion: gas

P M:	1.00 tons/yr x	<u>0.00040</u> emitted after controls =	<u>0.0004</u> tons/yr
P M-10:	3.99 tons/yr x	<u>0.00040</u> emitted after controls =	<u>0.002</u> tons/yr

dryer combustion: #2 oil

P M:	7.51 tons/yr x	<u>0.00040</u> emitted after controls =	<u>0.003</u> tons/yr
P M-10:	12.39 tons/yr x	<u>0.00040</u> emitted after controls =	<u>0.005</u> tons/yr

hot oil heater combustion: gas

P M:	0.012 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.012</u> tons/yr
P M-10:	0.050 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.050</u> tons/yr

hot oil heater combustion: #2 oil

P M:	0.094 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.094</u> tons/yr
P M-10:	0.155 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.155</u> tons/yr

aggregate drying:

P M:	36792.00 tons/yr x	<u>0.00040</u> emitted after controls =	<u>14.7</u> tons/yr
P M-10:	8541.00 tons/yr x	<u>0.00040</u> emitted after controls =	<u>3.42</u> tons/yr

conveying/handling:

P M:	3.64 tons/yr x	<u>1.000</u> emitted after controls =	<u>3.64</u> tons/yr
P M-10:	0.36 tons/yr x	<u>1.000</u> emitted after controls =	<u>0.364</u> tons/yr

screening

P M:	41.39 tons/yr x	<u>1.000</u> emitted after controls =	<u>41.4</u> tons/yr
P M-10:	4.14 tons/yr x	<u>1.000</u> emitted after controls =	<u>4.14</u> tons/yr

unpaved roads:

P M:	19.84 tons/yr x	50.00% emitted after controls =	<u>9.92</u> tons/yr
P M-10:	6.07 tons/yr x	50.00% emitted after controls =	<u>3.037</u> tons/yr

storage:

P M:	0.008 tons/yr x	50.00% emitted after controls =	<u>0.004</u> tons/yr
P M-10:	0.003 tons/yr x	50.00% emitted after controls =	<u>0.001</u> tons/yr

Load Out:

P M: 0.686 tons/yr x 100% emitted after controls = 0.686 tons/yr
 P M-10: 0.686 tons/yr x 100% emitted after controls = 0.686 tons/yr

Silo Filling:

P M: 0.770 tons/yr x 100% emitted after controls = 0.770 tons/yr
 P M-10: 0.770 tons/yr x 100% emitted after controls = 0.770 tons/yr

Emissions after controls (combustion plus production) are as follows:

	Gas	#2 Oil	
P M:	71.1	71.2	tons/yr
P M-10:	12.5	12.6	tons/yr

II. Allowable Emissions

A. The following calculations determine compliance with 326 IAC 6.5-1, which limits the stack emissions to 0.03 gr/dscf, and NSPS Subpart I, which limits stack emissions from asphalt plants to 0.04 gr/dscf:

$$\begin{aligned}
 & \frac{0.04 \text{ grains}^*}{\text{dscf}} \times \frac{62000 \text{ acfm}^*}{460} + \frac{528}{86 \text{ Temp}^*} \times \frac{100 - 0 \text{ \% moisture}}{100} \\
 & \times \frac{525600 \text{ minutes}^*}{\text{year}} \times \frac{1}{7000 \text{ grains}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \underline{90.0 \text{ tons/yr}}
 \end{aligned}$$

To meet NSPS Subpart I, the following value must be < amount calculated above

14.8 tons/yr

B. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

limit: 0.5 lbs/MMBtu

$$\begin{aligned}
 & 0.5 \text{ lbs/MMBtu} \times \frac{140000 \text{ Btu/gal}}{70.0 \text{ lbs/1000gal}} \\
 & \frac{70 \text{ lbs/1000gal}}{142.0 \text{ lb/1000 gal}} = \underline{0.493} \\
 & \underline{0.49} \text{ \% to comply with 326 IAC 7}
 \end{aligned}$$

Appendix A: Emission Calculations

Company Name: CGS Services, Inc.
Plant Location: 11380 North 300 East, Morristown, Indiana 46161
County: Shelby
Permit Number: T 145-22532-00060
Date: October 10, 2007
Reviewer: Teresa Freeman

Portable Asphalt Plant W-1
I. Potential Emissions
A. Plant emissions before controls

Sulfur Content limited to 0.1% pursuant to Condition D.1.4 of T 145-14524-00060, 05056 & 05202, issued November 1, 2001

Hot Oil Heater on Oil, identified as W-1i
(oil/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by #2 distillate fuel oil @ **0.1** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	0.75 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	140000 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>0.047</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.077</u> tons/yr
S O x:	14.2 lbs/1000 gal =	<u>0.33</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>0.469</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.008</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.117</u> tons/yr

Hot Oil Heater on Gas, identified as W-1i
(gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	0.75 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) = (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.006</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.025</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.002</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>0.329</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.018</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>0.276</u> tons/yr

Dryer Burner (#2 oil)

The following calculations determine the amount of emissions created by #2 distillate fuel oil @ **0.1** % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	62.0 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	140000 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>3.879</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>6.401</u> tons/yr
S O x:	14.2 lbs/1000 gal =	<u>27.544</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>38.794</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.660</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>9.699</u> tons/yr

Drum Mix Dryer

(#2 oil)

The following calculations determine the amount of emissions created by No. 2 fuel oil combustion and dryer, based on 8760 hours of use, AP-42 Ch. 11.1, Tables 11.1-7 and 8

Pollutant:	200 tons/hr * 8760 hrs/yr	* Ef (lbs/MMcf) = (tons/yr)
	2000 lbs/ton	(tons/yr)
S O x:	0.0110 lbs/ton =	<u>9.636</u> tons/yr
N O x:	0.055 lbs/ton =	<u>48.180</u> tons/yr
V O C:	0.032 lbs/ton =	<u>28.032</u> tons/yr
C O:	0.130 lbs/ton =	<u>113.880</u> tons/yr

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

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and AP-42, Chapter 11.1, Table 11.1-3, rev. 12/00

P M:	28 lbs/ton x	200 tons/hr x	8760 hrs/yr =	24528 tons/yr
		2000 lbs/ton		
P M-10:	6.5 lbs/ton x	200 tons/hr x	8760 hrs/yr =	5694 tons/yr
		2000 lbs/ton		
Lead:	0.0000033 lbs/ton x	200 tons/hr x	8760 hrs/yr =	0.003 tons/yr
		2000 lbs/ton		
HAPs:	0.0076 lbs/ton x	200 tons/hr x	8760 hrs/yr =	6.66 tons/yr
		2000 lbs/ton		
Worst Case Individual HAP:	0.0031 lbs/ton x	200 tons/hr x	8760 hrs/yr =	2.72 tons/yr
		2000 lbs/ton		

	HAPs Emission Factors (lbs/ton)	
	Natural Gas	Fuel Oil
Total	0.005	0.009
Worst Case Individual	0.0031	0.0031
Lead	0.0000062	0.000015

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

**** conveying / handling ****

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$E_f = .0032^* \frac{(U/5)^{1.3} * k =}{(M/2)^{1.4}} = \underline{0.003} \text{ lbs/ton}$$

where k = 1 (particle size multiplier)
U = 12 mph mean wind speed (worst case)
M = **5.0** % moisture

P M :	0.003 lbs/ton x	200.0 tons/hr x	8760 hrs/yr =	2.43 tons/yr
		2000 lbs/ton		
P M-10:	10% of PM =			0.243 tons/yr
Screening	PM: 200.0 tons/hr x	0.0315 lbs/ton	/ 2000 lbs/ton x	8760 hrs/yr = 27.6 tons/yr
	P M-10:	10% of PM =		2.76 tons/yr

**** unpaved roads ****

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

$$\begin{aligned}
 & 9.5 \text{ trip/hr} \times \\
 & 0.1 \text{ mile/trip} \times \\
 & 2 \text{ (round trip) } \times \\
 & 8760 \text{ hr/yr} = \qquad \qquad \qquad 16644 \text{ miles per year}
 \end{aligned}$$

PM

$$\begin{aligned}
 E_f &= k \cdot [(s/12)^{0.7}] \cdot [(W/3)^b] \\
 &= 5.48 \text{ lb/mile} \\
 \text{where } k &= 4.9 \text{ (particle size multiplier for PM)} \\
 s &= 4.8 \text{ mean \% silt content of unpaved roads} \\
 b &= 0.45 \text{ Constant for PM-10 and PM-30 or TSP} \\
 W &= 24 \text{ tons average vehicle weight} \\
 M &= 0.2 \text{ surface material moisture content, \% (default is 0.2 for dry conditions)} \\
 E &= \frac{5.48 \text{ lb/mi} \times 16644 \text{ mi/yr}}{2000 \text{ lb/ton}} = 45.57 \text{ tons/yr}
 \end{aligned}$$

Taking natural mitigation due to precipitation into consideration:

$$\begin{aligned}
 E_{\text{ext}} &= E \cdot [(365-p)/365] = 29.96 \text{ tons/yr} \\
 \text{where } p &= 125 \text{ days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)}
 \end{aligned}$$

PM-10

$$\begin{aligned}
 E_f &= k \cdot [(s/12)^{0.9}] \cdot [(W/3)^b] \\
 &= 1.68 \text{ lb/mile} \\
 \text{where } k &= 1.5 \text{ (particle size multiplier for PM-10)} \\
 s &= 4.8 \text{ mean \% silt content of unpaved roads} \\
 b &= 0.45 \text{ Constant for PM-10 and PM-30 or TSP} \\
 W &= 24 \text{ tons average vehicle weight} \\
 M &= 0.2 \text{ surface material moisture content, \% (default is 0.2 for dry conditions)} \\
 E &= \frac{1.68 \text{ lb/mi} \times 16644 \text{ mi/yr}}{2000 \text{ lb/ton}} = 13.95 \text{ tons/yr}
 \end{aligned}$$

Taking natural mitigation due to precipitation into consideration:

$$\begin{aligned}
 E_{\text{ext}} &= E \cdot [(365-p)/365] = 9.17 \text{ tons/yr} \\
 \text{where } p &= 125 \text{ days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)}
 \end{aligned}$$

All Trucking

$$\begin{aligned}
 \text{Total PM:} & \underline{\underline{29.96}} \text{ tons/yr} \\
 \text{Total PM-10:} & \underline{\underline{9.17}} \text{ tons/yr}
 \end{aligned}$$

**** storage ****

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8760 hours of use and AP-42, Ch 11.2.3.

$$E_f = 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15)$$

= 1.74 lbs/acre/day for sand
 = 1.16 lbs/acre/day for stone
 = 1.16 lbs/acre/day for slag
 = 1.16 lbs/acre/day for gravel
 = 1.16 lbs/acre/day for RAP

where s = 1.5 % silt for sand
 s = 1.0 % silt of stone
 s = 1.0 % silt of slag
 s = 1.0 % silt of gravel
 s = 1.0 % silt for RAP
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % of wind greater than or equal to 12 mph

$$E_p(\text{storage}) = \frac{E_f \cdot sc \cdot (20 \text{ cuft/ton}) \cdot (365 \text{ days/yr})}{(2000 \text{ lbs/ton}) \cdot (43560 \text{ sqft/acre}) \cdot (25 \text{ ft})}$$

= 0.002 tons/yr for sand
 = 0.006 tons/yr for stone
 = 0.000 tons/yr for slag
 = 0.000 tons/yr for gravel
 = 0.000 tons/yr for RAP

Total PM: **0.008** tons/yr

where sc = **0.35**,000 tons storage capacity for sand
 sc = **1.65**,000 tons storage capacity for stone
 sc = **0**,000 tons storage capacity for slag
 sc = **0**,000 tons storage capacity for gravel
 sc = **0**,000 tons storage capacity for RAP

P M-10: 35% of PM = 0.001 tons/yr for sand
 35% of PM = 0.002 tons/yr for stone
 35% of PM = 0.000 tons/yr for slag
 35% of PM = 0.000 tons/yr for gravel
 35% of PM = 0.000 tons/yr for RAP

Total PM-10: **0.003** tons/yr

**** Load Out and Yard Silo Filling ****

The following calculations determine the amount of emissions created by material handling of liquid asphalt based on 8760 hours of use and AP-42, Ch 11.1, Table 11.1-14, 15 and 16

Load Out

PM Ef = 0.000181 + 0.00141(-V)e^{-(0.0251)(T + 460) - 20.43} = **0.000522** lbs/ton
 TOC Ef = 0.0172(-V)e^{-(0.0251)(T + 460) - 20.43} = **0.004159** lbs/ton
 CO Ef = 0.00558(-V)e^{-(0.0251)(T + 460) - 20.43} = **0.001349** lbs/ton
 HAP Ef = ((0.00141(-V)e^{-(0.0251)(T + 460) - 20.43})(5.93%+1.18%)) + TOC Ef x 1.5% = **0.000087** lbs/ton

where V = -0.5 (asphalt volatility)
 T = 325 (mix temperature in degrees Fahrenheit)

P M : **0.000522** lbs/ton x **200.0** tons/hr x 8760 hrs/yr = **0.457** tons/yr
 P M 10 : **0.000522** lbs/ton x **200.0** tons/hr x 8760 hrs/yr = **0.457** tons/yr
 VOC : **0.004159** lbs/ton x **200.0** tons/hr x 8760 hrs/yr = **3.64** tons/yr
 CO : **0.001349** lbs/ton x **200.0** tons/hr x 8760 hrs/yr = **1.18** tons/yr
 Total HAPs : **0.000087** lbs/ton x **200.0** tons/hr x 8760 hrs/yr = **0.076** tons/yr

2000 lbs/ton

Silo Filling

$$\begin{aligned}
 \text{PM Ef} &= 0.000332 + 0.00105(-V)e^{-(0.0251)(T + 460) - 20.43} && \underline{\underline{0.000586}} \text{ lbs/ton} \\
 \text{TOC Ef} &= 0.0504(-V)e^{-(0.0251)(T + 460) - 20.43} && \underline{\underline{0.012187}} \text{ lbs/ton} \\
 \text{CO Ef} &= 0.00488(-V)e^{-(0.0251)(T + 460) - 20.43} && \underline{\underline{0.001180}} \text{ lbs/ton} \\
 \text{HAP Ef} &= (0.00105(-V)e^{-(0.0251)(T + 460) - 20.43}) * 11.4\% + \text{TOC Ef} * 1.3\% && \underline{\underline{0.000187}} \text{ lbs/ton}
 \end{aligned}$$

where V = (asphalt volatility)
T = (mix temperature in degrees Fahrenheit)

PM :	<u>0.000586</u> lbs/ton x	<u>200.0</u> tons/hr x	8760 hrs/yr =	<u>0.513</u> tons/yr	
		2000 lbs/ton			
PM 10 :	<u>0.000586</u> lbs/ton x	<u>200.0</u> tons/hr x	8760 hrs/yr =	<u>0.513</u> tons/yr	
		2000 lbs/ton			
VOC :	<u>0.012187</u> lbs/ton x	<u>200.0</u> tons/hr x	8760 hrs/yr *	<u>94.0%</u>	<u>10.04</u> tons/yr
		2000 lbs/ton			
CO :	<u>0.001180</u> lbs/ton x	<u>200.0</u> tons/hr x	8760 hrs/yr =	<u>1.03</u> tons/yr	
		2000 lbs/ton			
Total HAPs :	<u>0.000187</u> lbs/ton x	<u>200.0</u> tons/hr x	8760 hrs/yr =	<u>0.164</u> tons/yr	
		2000 lbs/ton			

**One (1) diesel generator, identified as E 34, rated at 205 kilowatts or 205 kw x 1.341022 hp/kw
Emissions calculated based on output rating (hp)**

Horsepower (hp)	Potential Throughput hp-hr/yr	MMBtu/yr
<input type="text" value="274.9"/> hp	<input type="text" value="2408207.3"/>	16857.5

Emission Factor in lb/hp-hr	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	2.65	2.65	2.47	37.3	3.03	8.04

HAP	Emission Factor Diesel Engines (lb/MMBtu)	Potential to Emit (tons/yr)
Benzene	9.33E-04	0.008
Toluene	4.09E-04	0.003
Xylenes	2.85E-04	0.002
Propylene	2.58E-03	0.022
1,3-Butadiene	3.91E-05	0.0003
Formaldehyde	1.18E-03	0.010
Acetylaldehyde	7.67E-04	0.006
Acrolein	9.25E-05	0.001
Total PAH	1.68E-04	0.001
Total HAPs:	6.45E-03	0.054

Methodology

Potential Throughput (hp-hr/yr) = hp * 8760 hr/yr
Use a conversion factor of 7,000 Btu per hp-hr to convert from horsepower to Btu/hr (AP-42, Footnote a, Table 3.3-1)
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)
Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

Emissions before controls (combustion plus production) are as follows (fuel indicated is fuel used at dryer) including the diesel generator:

natural gas		#2 oil	
P M:	24592 tons/yr	P M:	24596 tons/yr
P M-10:	5710 tons/yr	P M-10:	5716 tons/yr
S O x:	2.80 tons/yr	S O x:	30.3 tons/yr
N O x:	37.80 tons/yr	N O x:	86.0 tons/yr
V O C:	16.72 tons/yr	V O C:	44.8 tons/yr
C O:	10.53 tons/yr	C O:	124.4 tons/yr
Lead:	0.003 tons/yr	Lead:	0.003 tons/yr
HAPs:	6.95 tons/yr	HAPs:	6.95 tons/yr

B. Plant emissions after controls

dryer combustion: #2 oil

P M:	3.88 tons/yr x	0.00100 emitted after controls =	<u>0.004</u> tons/yr
P M-10:	6.40 tons/yr x	0.00100 emitted after controls =	<u>0.006</u> tons/yr

hot oil heater combustion: gas

P M:	0.006 tons/yr x	1.00000 emitted after controls =	<u>0.006</u> tons/yr
P M-10:	0.025 tons/yr x	1.00000 emitted after controls =	<u>0.025</u> tons/yr

hot oil heater combustion: #2 oil

P M:	0.047 tons/yr x	1.00000 emitted after controls =	<u>0.047</u> tons/yr
P M-10:	0.077 tons/yr x	1.00000 emitted after controls =	<u>0.077</u> tons/yr

aggregate drying:

P M:	24528.00 tons/yr x	0.00100 emitted after controls =	<u>24.5</u> tons/yr
P M-10:	5694.00 tons/yr x	0.00100 emitted after controls =	<u>5.69</u> tons/yr

conveying/handling:

P M:	2.43 tons/yr x	1.000 emitted after controls =	<u>2.43</u> tons/yr
P M-10:	0.24 tons/yr x	1.000 emitted after controls =	<u>0.243</u> tons/yr

screening

P M:	27.59 tons/yr x	1.000 emitted after controls =	<u>27.6</u> tons/yr
P M-10:	2.76 tons/yr x	1.000 emitted after controls =	<u>2.76</u> tons/yr

unpaved roads:

P M:	29.96 tons/yr x	50.00% emitted after controls =	<u>14.98</u> tons/yr
P M-10:	9.17 tons/yr x	50.00% emitted after controls =	<u>4.586</u> tons/yr

storage:

P M:	0.008 tons/yr x	50.00% emitted after controls =	<u>0.004</u> tons/yr
P M-10:	0.003 tons/yr x	50.00% emitted after controls =	<u>0.001</u> tons/yr

Load Out:

P M:	0.457 tons/yr x	100% emitted after controls =	<u>0.457</u> tons/yr
P M-10:	0.457 tons/yr x	100% emitted after controls =	<u>0.457</u> tons/yr

Silo Filling:

P M:	0.513 tons/yr x	100% emitted after controls =	<u>0.513</u> tons/yr
P M-10:	0.513 tons/yr x	100% emitted after controls =	<u>0.513</u> tons/yr

Emissions after controls (combustion plus production) are as follows:

	Gas	#2 Oil	
P M:	70.5	70.6	tons/yr

P M-10:	14.3	14.3 tons/yr
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II. Allowable Emissions

A. The following calculations determine compliance with 326 IAC 6-1, which limits the stack emissions to 0.03 gr/dscf, and NSPS Subpart I, which limits stack emissions from asphalt plants to 0.04 gr/dscf:

$$\begin{aligned}
 & \frac{0.04 \text{ grains}^*}{\text{dscf}} \times \frac{32500 \text{ acfm}^*}{460} + \frac{528}{86 \text{ Temp}^*} \times \frac{100 - 0 \text{ \% moisture}}{100} \\
 & \times \frac{525600 \text{ minutes}^*}{\text{year}} \times \frac{1}{7000 \text{ grains}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \underline{47.2 \text{ tons/yr}}
 \end{aligned}$$

To meet NSPS Subpart I, the following value must be < amount calculated above

24.6 tons/yr

B. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

limit: 0.5 lbs/MMBtu

$$\begin{aligned}
 & 0.5 \text{ lbs/MMBtu} \times \frac{140000 \text{ Btu/gal}}{70 \text{ lbs/1000gal}} = \frac{70.0 \text{ lbs/1000gal}}{142.0 \text{ lb/1000 gal}} = \underline{0.493} \\
 & \underline{0.5 \text{ \% to comply with 326 IAC 7}}
 \end{aligned}$$

Appendix A: Emission Calculations

Company Name: CGS Services, Inc.
 Plant Location: 11380 North 300 East, Morristown, Indiana 46161
 County: Shelby
 Permit Number: T 145-22532-00060
 Date: October 10, 2007
 Reviewer: Teresa Freeman

Portable Plant W-2

I. Potential Emissions

A. Plant emissions before controls

Sulfur Content limited to 0.1% pursuant to Condition D.2.4 of T 145-14524-00060, 05056 & 05202, issued November 1, 2001

Hot Oil Heater on Oil, identified as W-2i
 (oil/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by #2 distillate

fuel oil @ 0.1 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	0.75 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	140000 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	0.047 tons/yr
PM-10:	3.3 lbs/1000 gal =	0.077 tons/yr
S O x:	14.2 lbs/1000 gal =	0.33 tons/yr
N O x:	20.0 lbs/1000 gal =	0.469 tons/yr
V O C:	0.34 lbs/1000 gal =	0.008 tons/yr
C O:	5.0 lbs/1000 gal =	0.117 tons/yr

Hot Oil Heater on Gas, identified as W-2i
 (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	0.75 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) = (tons/yr)
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	0.006 tons/yr
P M-10:	7.6 lbs/MMcf =	0.025 tons/yr
S O x:	0.6 lbs/MMcf =	0.002 tons/yr
N O x:	100.0 lbs/MMcf =	0.329 tons/yr
V O C:	5.5 lbs/MMcf =	0.018 tons/yr
C O:	84.0 lbs/MMcf =	0.276 tons/yr

Dryer Burner (#2 oil)

The following calculations determine the amount of emissions created by #2 distillate

fuel oil @ 0.1 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	62.0 MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	140000 Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	3.879 tons/yr
PM-10:	3.3 lbs/1000 gal =	6.401 tons/yr
S O x:	14.2 lbs/1000 gal =	27.544 tons/yr
N O x:	20.0 lbs/1000 gal =	38.794 tons/yr
V O C:	0.34 lbs/1000 gal =	0.660 tons/yr
C O:	5.0 lbs/1000 gal =	9.699 tons/yr

Drum Mix Dryer (#2 oil)

The following calculations determine the amount of emissions created by No. 2 fuel oil combustion and dryer, based on 8760 hours of use, AP-42 Ch. 11.1, Tables 11.1-7 and 8

Pollutant:	200 tons/hr * 8760 hrs/yr	* Ef (lbs/MMcf) = (tons/yr) (tons/yr)
	2000 lbs/ton	
S O x:	0.0110 lbs/ton =	<u>9.636</u> tons/yr
N O x:	0.055 lbs/ton =	<u>48.180</u> tons/yr
V O C:	0.032 lbs/ton =	<u>28.032</u> tons/yr
C O:	0.130 lbs/ton =	<u>113.880</u> tons/yr

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

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and AP-42, Chapter 11.1, Table 11.1-3, rev. 12/00

P M:	28 lbs/ton x	200 tons/hr x	8760 hrs/yr =	24528 tons/yr
		2000 lbs/ton		
P M-10:	6.5 lbs/ton x	200 tons/hr x	8760 hrs/yr =	5694 tons/yr
		2000 lbs/ton		
Lead:	0.0000033 lbs/ton x	200 tons/hr x	8760 hrs/yr =	0.003 tons/yr
		2000 lbs/ton		
HAPs:	0.0076 lbs/ton x	200 tons/hr x	8760 hrs/yr =	6.66 tons/yr
		2000 lbs/ton		
Worst Case Individual HAP:	0.0031 lbs/ton x	200 tons/hr x	8760 hrs/yr =	2.72 tons/yr
		2000 lbs/ton		

	HAPs Emission Factors (lbs/ton)	
	Natural Gas	Fuel Oil
Total	0.005	0.009
Worst Case Individual	0.0031	0.0031
Lead	0.0000062	0.000015

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

**** conveying / handling ****

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$Ef = .0032 * \frac{(U/5)^{1.3} * k}{(M/2)^{1.4}}$$

where k = 1 (particle size multiplier)
 U = 12 mph mean wind speed (worst case)
 M = **5.0** % moisture

P M : 0.003 lbs/ton x **200.0** tons/hr x 8760 hrs/yr = **2.43** tons/yr
 2000 lbs/ton

P M-10: 10% of PM = 0.243 tons/yr

Screening

PM: **200.0** tons/hr x 0.0315 lbs/ton / 2000 lbs/ton x 8760 hrs/yr = 27.6 tons/yr

P M-10: 10% of PM = 2.76 tons/yr

**** unpaved roads ****

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

$$\begin{aligned}
 & 9.5 \text{ trip/hr} \times \\
 & 0.1 \text{ mile/trip} \times \\
 & 2 \text{ (round trip) } \times \\
 & 8760 \text{ hr/yr} = \qquad \qquad \qquad 16644 \text{ miles per year}
 \end{aligned}$$

PM

$$\begin{aligned}
 E_f &= k \left[\frac{s}{12} \right]^{0.7} \left[\frac{W}{3} \right]^b \\
 &= 5.48 \text{ lb/mile} \\
 \text{where } k &= 4.9 \text{ (particle size multiplier for PM)} \\
 s &= 4.8 \text{ mean \% silt content of unpaved roads} \\
 b &= 0.45 \text{ Constant for PM-10 and PM-30 or TSP} \\
 W &= 24 \text{ tons average vehicle weight} \\
 M &= 0.2 \text{ surface material moisture content, \% (default is 0.2 for dry conditions)} \\
 E &= \frac{5.48 \text{ lb/mi} \times 16644 \text{ mi/yr}}{2000 \text{ lb/ton}} = 45.57 \text{ tons/yr}
 \end{aligned}$$

Taking natural mitigation due to precipitation into consideration:

$$\begin{aligned}
 E_{ext} &= E * [(365-p)/365] = 29.96 \text{ tons/yr} \\
 \text{where } p &= 125 \text{ days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)}
 \end{aligned}$$

PM-10

$$\begin{aligned}
 E_f &= k \left[\frac{s}{12} \right]^{0.9} \left[\frac{W}{3} \right]^b \\
 &= 1.68 \text{ lb/mile} \\
 \text{where } k &= 1.5 \text{ (particle size multiplier for PM-10)} \\
 s &= 4.8 \text{ mean \% silt content of unpaved roads} \\
 b &= 0.45 \text{ Constant for PM-10 and PM-30 or TSP} \\
 W &= 24 \text{ tons average vehicle weight} \\
 M &= 0.2 \text{ surface material moisture content, \% (default is 0.2 for dry conditions)} \\
 E &= \frac{1.68 \text{ lb/mi} \times 16644 \text{ mi/yr}}{2000 \text{ lb/ton}} = 13.95 \text{ tons/yr}
 \end{aligned}$$

Taking natural mitigation due to precipitation into consideration:

$$\begin{aligned}
 E_{ext} &= E * [(365-p)/365] = 9.17 \text{ tons/yr} \\
 \text{where } p &= 125 \text{ days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)}
 \end{aligned}$$

All Trucking

$$\begin{aligned}
 \text{Total PM:} & \underline{\underline{29.96}} \text{ tons/yr} \\
 \text{Total PM-10:} & \underline{\underline{9.17}} \text{ tons/yr}
 \end{aligned}$$

**** storage ****

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8760 hours of use and AP-42, Ch 11.2.3.

$$E_f = 1.7 \cdot (s/1.5)^3 \cdot (365-p)/235 \cdot (f/15)$$

= 1.74 lbs/acre/day for sand
 = 1.16 lbs/acre/day for stone
 = 1.16 lbs/acre/day for slag
 = 1.16 lbs/acre/day for gravel
 = 1.16 lbs/acre/day for RAP

where s = 1.5 % silt for sand
 s = 1.0 % silt of stone
 s = 1.0 % silt of slag
 s = 1.0 % silt of gravel
 s = 1.0 % silt for RAP
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % of wind greater than or equal to 12 mph

$$E_p(\text{storage}) = E_f \cdot sc \cdot (20 \text{ cuft/ton}) \cdot (365 \text{ days/yr})$$

$$\frac{(2000 \text{ lbs/ton}) \cdot (43560 \text{ sqft/acre}) \cdot (25 \text{ ft})}{2000 \text{ lbs/ton}}$$

= 0.002 tons/yr for sand
 = 0.006 tons/yr for stone
 = 0.000 tons/yr for slag
 = 0.000 tons/yr for gravel
 = 0.000 tons/yr for RAP

Total PM: **0.008** tons/yr

where sc = **0.35**,000 tons storage capacity for sand
 sc = **1.65**,000 tons storage capacity for stone
 sc = **0**,000 tons storage capacity for slag
 sc = **0**,000 tons storage capacity for gravel
 sc = **0**,000 tons storage capacity for RAP

P M-10: 35% of PM = 0.001 tons/yr for sand
 35% of PM = 0.002 tons/yr for stone
 35% of PM = 0.000 tons/yr for slag
 35% of PM = 0.000 tons/yr for gravel
 35% of PM = 0.000 tons/yr for RAP

Total PM-10: **0.003** tons/yr

**** Load Out and Yard Silo Filling ****

The following calculations determine the amount of emissions created by material handling of liquid asphalt based on 8760 hours of use and AP-42, Ch 11.1, Table 11.1-14, 15 and 16

Load Out

PM Ef = $0.000181 + 0.00141(-V)e^{-(0.0251)(T + 460)} - 20.43$ 0.000522 lbs/ton
 TOC Ef = $0.0172(-V)e^{-(0.0251)(T + 460)} - 20.43$ 0.004159 lbs/ton
 CO Ef = $0.00558(-V)e^{-(0.0251)(T + 460)} - 20.43$ 0.001349 lbs/ton
 HAP Ef = $((0.00141(-V)e^{-(0.0251)(T + 460)} - 20.43) \cdot (5.93\% + 1.18\%)) + \text{TOC Ef} \cdot 1.5\%$ 0.000087 lbs/ton

where V = **-0.5** (asphalt volatility)
 T = **325** (mix temperature in degrees Fahrenheit)

P M : 0.000522 lbs/ton x 200.0 tons/hr x 8760 hrs/yr = 0.457 tons/yr
 2000 lbs/ton

P M 10 : 0.000522 lbs/ton x 200.0 tons/hr x 8760 hrs/yr = 0.457 tons/yr
 2000 lbs/ton

VOC : 0.004159 lbs/ton x 200.0 tons/hr x 8760 hrs/yr = 3.64 tons/yr
 2000 lbs/ton

CO : 0.001349 lbs/ton x 200.0 tons/hr x 8760 hrs/yr = 1.18 tons/yr
 2000 lbs/ton

Total HAPs : 0.000087 lbs/ton x 200.0 tons/hr x 8760 hrs/yr = 0.076 tons/yr
 2000 lbs/ton

Silo Filling

PM Ef = $0.000332 + 0.00105(-V)e^{-(0.0251)(T + 460) - 20.43}$ 0.000586 lbs/ton
 TOC Ef = $0.0504(-V)e^{-(0.0251)(T + 460) - 20.43}$ 0.012187 lbs/ton
 CO Ef = $0.00488(-V)e^{-(0.0251)(T + 460) - 20.43}$ 0.001180 lbs/ton
 HAP Ef = $(0.00105(-V)e^{-(0.0251)(T + 460) - 20.43}) * 11.4\% + TOC Ef \times 1.3\%$ 0.000187 lbs/ton

where V = -0.5 (asphalt volatility)
 T = 325 (mix temperature in degrees Fahrenheit)

PM :	<u>0.000586</u> lbs/ton x	<u>200.0</u> tons/hr x	8760 hrs/yr =	<u>0.513</u> tons/yr	
		2000 lbs/ton			
PM 10 :	<u>0.000586</u> lbs/ton x	<u>200.0</u> tons/hr x	8760 hrs/yr =	<u>0.513</u> tons/yr	
		2000 lbs/ton			
VOC :	<u>0.012187</u> lbs/ton x	<u>200.0</u> tons/hr x	8760 hrs/yr *	94.0%	<u>10.04</u> tons/yr
		2000 lbs/ton			
CO :	<u>0.001180</u> lbs/ton x	<u>200.0</u> tons/hr x	8760 hrs/yr =	<u>1.03</u> tons/yr	
		2000 lbs/ton			
Total HAPs :	<u>0.000187</u> lbs/ton x	<u>200.0</u> tons/hr x	8760 hrs/yr =	<u>0.164</u> tons/yr	
		2000 lbs/ton			

One (1) diesel generator, identified as E 33, rated at 175 kilowatts or 175 kw x 1.341022 hp/kw
Emissions calculated based on output rating (hp)

Horsepower (hp)	Potential Throughput hp-hr/yr	MMBtu/yr
<u>234.7</u> hp	<u>2055786.7</u>	14390.5

Emission Factor in lb/hp-hr	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	2.26	2.26	2.11	31.9	2.58	6.87

HAP	Emission Factor Diesel Engines (lb/MMBtu)	Potential to Emit (tons/yr)
Benzene	9.33E-04	0.007
Toluene	4.09E-04	0.003
Xylenes	2.85E-04	0.002
Propylene	2.58E-03	0.019
1,3-Butadiene	3.91E-05	0.0003
Formaldehyde	1.18E-03	0.008
Acetylaldehyde	7.67E-04	0.006
Acrolein	9.25E-05	0.001
Total PAH	1.68E-04	0.001
Total HAPs:	6.45E-03	0.046

Methodology

Potential Throughput (hp-hr/yr) = hp * 8760 hr/yr
 Use a conversion factor of 7,000 Btu per hp-hr to convert from horsepower to Btu/hr (AP-42, Footnote a, Table 3.3-1)
 Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
 Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)
 Emission (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

Emissions before controls (combustion plus production) are as follows (fuel indicated is fuel used at dryer):

natural gas		#2 oil	
P M:	24591 tons/yr	P M:	24595 tons/yr
P M-10:	5709 tons/yr	P M-10:	5716 tons/yr
S O x:	2.44 tons/yr	S O x:	30.0 tons/yr
N O x:	32.33 tons/yr	N O x:	80.5 tons/yr
V O C:	16.28 tons/yr	V O C:	44.3 tons/yr
C O:	9.36 tons/yr	C O:	123.2 tons/yr
Lead:	0.003 tons/yr	Lead:	0.003 tons/yr
HAPs:	6.94 tons/yr	HAPs:	6.94 tons/yr

B. Plant emissions after controls

dryer combustion: #2 oil			
P M:	3.88 tons/yr x	0.00100	emitted after controls = 0.004 tons/yr
P M-10:	6.40 tons/yr x	0.00100	emitted after controls = 0.006 tons/yr
hot oil heater combustion: gas			
P M:	0.006 tons/yr x	1.00000	emitted after controls = 0.006 tons/yr
P M-10:	0.025 tons/yr x	1.00000	emitted after controls = 0.025 tons/yr
hot oil heater combustion: #2 oil			
P M:	0.047 tons/yr x	1.00000	emitted after controls = 0.047 tons/yr
P M-10:	0.077 tons/yr x	1.00000	emitted after controls = 0.077 tons/yr
aggregate drying:			
P M:	24528.00 tons/yr x	0.00100	emitted after controls = 24.5 tons/yr
P M-10:	5694.00 tons/yr x	0.00100	emitted after controls = 5.69 tons/yr
conveying/handling:			
P M:	2.43 tons/yr x	1.000	emitted after controls = 2.43 tons/yr
P M-10:	0.24 tons/yr x	1.000	emitted after controls = 0.243 tons/yr
screening			
P M:	27.59 tons/yr x	1.000	emitted after controls = 27.6 tons/yr
P M-10:	2.76 tons/yr x	1.000	emitted after controls = 2.76 tons/yr
unpaved roads:			
P M:	29.96 tons/yr x	50.00%	emitted after controls = 14.98 tons/yr
P M-10:	9.17 tons/yr x	50.00%	emitted after controls = 4.586 tons/yr
storage:			
P M:	0.008 tons/yr x	50.00%	emitted after controls = 0.004 tons/yr
P M-10:	0.003 tons/yr x	50.00%	emitted after controls = 0.001 tons/yr
Load Out:			
P M:	0.457 tons/yr x	100%	emitted after controls = 0.457 tons/yr
P M-10:	0.457 tons/yr x	100%	emitted after controls = 0.457 tons/yr
Silo Filling:			
P M:	0.513 tons/yr x	100%	emitted after controls = 0.513 tons/yr
P M-10:	0.513 tons/yr x	100%	emitted after controls = 0.513 tons/yr

Emissions after controls (combustion plus production) are as follows:

	Gas	#2 Oil	
P M:	70.5	70.6	tons/yr
P M-10:	14.3	14.3	tons/yr

II. Allowable Emissions

A. The following calculations determine compliance with 326 IAC 6-1, which limits the stack emissions to 0.03 gr/dscf, and NSPS Subpart I, which limits stack emissions from asphalt plants to 0.04 gr/dscf:

$$\begin{aligned}
 & \frac{0.04 \text{ grains}}{\text{dscf}} \times \frac{32500 \text{ acfm}}{\text{year}} \times \frac{525600 \text{ minutes}}{\text{year}} \times \frac{1}{7000 \text{ grains}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 47.2 \text{ tons/yr} \\
 & \frac{460 \times 528 + 86 \text{ Temp}}{100 - 0 \% \text{ moisture}} = 24.6 \text{ tons/yr}
 \end{aligned}$$

To meet NSPS Subpart I, the following value must be < amount calculated above

24.6 tons/yr

B. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

limit: 0.5 lbs/MMBtu

$$\begin{aligned}
 & \frac{0.5 \text{ lbs/MMBtu} \times 141000.0 \text{ Btu/gal}}{70.5 \text{ lbs/1000gal}} = 70.5 \text{ lbs/1000gal} \\
 & \frac{70.5 \text{ lbs/1000gal}}{142.0 \text{ lb/1000 gal}} = 0.496 \\
 & \underline{0.5 \% \text{ to comply with 326 IAC 7}}
 \end{aligned}$$

Appendix A: Summary of Emission Calculations

Company Name: CGS Services, Inc.
 Plant Location: 11380 North 300 East, Morristown, Indiana 46161
 County: Shelby
 Permit Number: T 145-22532-00060
 Date: October 10, 2007
 Reviewer: Teresa Freeman

Unrestricted Potential to Emit (tons per year)

	PM	PM-10	SOx	NOx	VOC	CO	HAPs
Stationary Asphalt Plant S-1	36866	8566	242.9	99	24	175	10.3
Portable Asphalt Plant W-1	24596	5716	30.3	86.0	44.8	124	6.95
Portable Asphalt Plant W-2	24595	5716	30.0	80.5	44.3	123	6.94
Insignificant Activities	3	3	1	3	3	3	0.50
Total	86060	20001	304.2	268.5	116.1	425	24.7

Controlled Potential to Emit (tons per year)

	PM	PM-10	SOx	NOx	VOC	CO	HAPs
Stationary Asphalt Plant S-1	71.2	12.6	242.9	99	24	175	10.3
Portable Asphalt Plant W-1	70.6	14.3	30.3	86.0	44.8	124	6.95
Portable Asphalt Plant W-2	70.6	14.3	30.0	80.5	44.3	123	6.94
Insignificant Activities	3	3	1	3	3	3	0.5
Total	215.4	44.2	304.2	268.5	116.1	425	24.7

Limited and Unrestricted Potential to Emit (tons per year)

	PM	PM-10	SOx	NOx	VOC	CO	HAPs
Stationary Asphalt Plant S-1	Less than 250	Less than 250	Less than 250	Entire Source Less than 250	24	Less than 250	10.3
44.8					6.91		
44.3					6.91		
Portable Asphalt Plant W-1	Less than 250	Less than 250	Less than 250	Entire Source Less than 250	3	Less than 250	0.5
3					0.5		
Portable Asphalt Plant W-2	Less than 250	Less than 250	Less than 250	Entire Source Less than 250	116.1	Less than 250	Single less than 10, total less than 25
Insignificant Activities					3		0.5
Total	Less than 250	Less than 250	Less than 250	Entire Source Less than 250	116.1	Less than 250	Single less than 10, total less than 25

Utilizing this Asphalt Production Limit Results in following PM and PM-10 Emissions

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and AP-42, Chapter 11.1, Table 11.1-3, rev. 12/00

P M:	28 lbs/ton x	#REF!	tons/hr x	8760 hrs/yr =	#REF!	tons/yr
		2000	lbs/ton			
P M-10:	6.5 lbs/ton x	#REF!	tons/hr x	8760 hrs/yr =	#REF!	tons/yr
		2000	lbs/ton			
Lead:	0.0000033 lbs/ton x	#REF!	tons/hr x	8760 hrs/yr =	#REF!	tons/yr
		2000	lbs/ton			
HAPs:	0.0076 lbs/ton x	#REF!	tons/hr x	8760 hrs/yr =	#REF!	tons/yr
		2000	lbs/ton			
Worst Case Individual HAP:	0.0031 lbs/ton x	#REF!	tons/hr x	8760 hrs/yr =	#REF!	tons/yr
		2000	lbs/ton			

HAPs Emission Factors (lbs/ton)		
	Natural Gas	Fuel Oil
Total	0.005	0.009
Worst Case	0.0031	0.0031
Case	Formaldehyde	Formaldehyde
Lead	0.00000062	0.000015

Limited ** conveying / handling **

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$E_f = .0032 * \frac{(U/5)^{1.3} * k}{(M/2)^{1.4}} = \underline{\underline{0.003}} \text{ lbs/ton}$$

where k = 1 (particle size multiplier)
U = 12 mph mean wind speed (worst case)
M = 5.0 % moisture

P M :	<u>0.003</u> lbs/ton x	#REF!	tons/hr x	8760 hrs/yr =	#REF!	tons/yr
		2000	lbs/ton			
P M-10:	10% of PM =	#REF!	tons/yr			
Limited Screening	PM: #REF! tons/hr x	0.0315 lbs/ton	/ 2000 lbs/ton x	8760 hrs/yr =	#REF!	tons/yr
	P M-10: 10% of PM =	#REF!	tons/yr			

The following calculations determine the amount of emissions created by material handling of liquid asphalt based on 8760 hours of use and AP-42, Ch 11.1, Table 11.1-14, 15 and 16

Limited Load Out

$$\begin{aligned} \text{PM Ef} &= 0.000181 + 0.00141(-V)^e((0.0251)(T + 460) - 20.43) = \underline{\underline{0.000522}} \text{ lbs/ton} \\ \text{TOC Ef} &= 0.0172(-V)^e((0.0251)(T + 460) - 20.43) = \underline{\underline{0.004159}} \text{ lbs/ton} \\ \text{CO Ef} &= 0.00558(-V)^e((0.0251)(T + 460) - 20.43) = \underline{\underline{0.001349}} \text{ lbs/ton} \\ \text{HAP Ef} &= ((0.00141(-V)^e((0.0251)(T + 460) - 20.43)) * (5.93\% + 1.18\%)) + \text{TOC Ef} * 1.5\% = \underline{\underline{0.000062}} \text{ lbs/ton} \end{aligned}$$

where V = -0.5 (asphalt volatility)
T = 325 (mix temperature in degrees Fahrenheit)

P M :	<u>0.000522</u> lbs/ton x	#REF!	tons/hr x	8760 hrs/yr =	#REF!	tons/yr
		2000	lbs/ton			
P M 10 :	<u>0.000522</u> lbs/ton x	#REF!	tons/hr x	8760 hrs/yr =	#REF!	tons/yr
		2000	lbs/ton			
VOC :	<u>0.004159</u> lbs/ton x	#REF!	tons/hr x	8760 hrs/yr =	#REF!	tons/yr
		2000	lbs/ton			
CO :	<u>0.001349</u> lbs/ton x	#REF!	tons/hr x	8760 hrs/yr =	#REF!	tons/yr
		2000	lbs/ton			
Total HAPs :	<u>0.000062</u> lbs/ton x	#REF!	tons/hr x	8760 hrs/yr =	#REF!	tons/yr
		2000	lbs/ton			

$$\begin{aligned}
 \text{PM Ef} &= 0.000332 + 0.00105(-V)e^{-(0.0251)(T + 460) - 20.43} && \underline{\underline{0.000586}} \text{ lbs/ton} \\
 \text{TOC Ef} &= 0.0504(-V)e^{-(0.0251)(T + 460) - 20.43} && \underline{\underline{0.012187}} \text{ lbs/ton} \\
 \text{CO Ef} &= 0.00488(-V)e^{-(0.0251)(T + 460) - 20.43} && \underline{\underline{0.001180}} \text{ lbs/ton} \\
 \text{HAP Ef} &= (0.00105(-V)e^{-(0.0251)(T + 460) - 20.43}) * 11.4\% + \text{TOC Ef} \times 1.3\% && \underline{\underline{0.000158}} \text{ lbs/ton}
 \end{aligned}$$

where V = -0.5 (asphalt volatility)
T = 325 (mix temperature in degrees Fahrenheit)

PM :	<u>0.000586</u> lbs/ton x	<u>#REF!</u> tons/hr x	8760 hrs/yr =	<u>#REF!</u> tons/yr	
		2000 lbs/ton			
PM 10 :	<u>0.000586</u> lbs/ton x	<u>#REF!</u> tons/hr x	8760 hrs/yr =	<u>#REF!</u> tons/yr	
		2000 lbs/ton			
VOC :	<u>0.012187</u> lbs/ton x	<u>#REF!</u> tons/hr x	8760 hrs/yr *	94.0%	<u>#REF!</u> tons/yr
		2000 lbs/ton			
CO :	<u>0.001180</u> lbs/ton x	<u>#REF!</u> tons/hr x	8760 hrs/yr =	<u>#REF!</u> tons/yr	
		2000 lbs/ton			
Total HAPs :	<u>0.000158</u> lbs/ton x	<u>#REF!</u> tons/hr x	8760 hrs/yr =	<u>#REF!</u> tons/yr	
		2000 lbs/ton			

Limited Emissions based on Asphalt throughput limit

	PM tons/yr	PM-10 tons/yr
Conveying/handling	#REF!	#REF!
Screening	#REF!	#REF!
Loadout	#REF!	#REF!
Silo Filling	#REF!	#REF!
Diesel Generator E34	2.65	2.65
Diesel Generator E33	2.26	2.26
Stationary S-1a & 1b Oil Heaters worst case on oil	0.094	0.155
Portable Oil Heater W-1i	0.047	0.077
Portable Oil Heater W-2i	0.047	0.077
S-1 Burner worst case on oil	7.51	12.4
Portable W-1 dryer burner on oil	3.88	6.40
Portable W-2 dryer burner on oil	3.88	6.40
Subtotal	#REF!	#REF!

In order for PM and PM-10 emissions from the entire source to be limited to less than 250 TPY, including the above PM and PM-10 emissions of 83.5 and 38.5 tons per year, the PM and PM-10 emission rate, equivalent to less than 166.5 and 211.5 tons/year for the aggregate dryers has been calculated as follows for the limited asphalt production limit:

$$\begin{aligned}
 166.50 \text{ tons of PM/year} \times 2000 \text{ pounds/ton} &= \text{\#REF!} \text{ pounds of PM per year} \\
 221.5 \text{ tons of PM-10/year} \times 2000 \text{ pounds/ton} &= \text{\#REF!} \text{ pounds of PM per year}
 \end{aligned}$$

Limited throughput of Asphalt from above:

$$\text{\#REF!} \text{ tons of Asphalt/year}$$

$$\begin{aligned}
 \text{PM emission rate} &= \text{\#REF!} \text{ pound of PM per year} / 3569230.8 \text{ tons of Asphalt/year} \\
 \text{PM emission rate} &= \text{\#REF!} \text{ pounds of PM per ton of Asphalt}
 \end{aligned}$$

$$\begin{aligned}
 \text{PM-10 emission rate} &= \text{\#REF!} \text{ pound of PM per year} / 3569230.8 \text{ tons of Asphalt/year} \\
 \text{PM-10 emission rate} &= \text{\#REF!} \text{ pounds of PM-10 per ton of Asphalt}
 \end{aligned}$$

SO2 is limited to 250 TPY for the entire source. The unrestricted potential to emit from the 2 diesel generators is 2.47 TPY for E34 and 2.11 TPY for E33. Therefore the potential to emit SO2 from the hot heaters and dryer burners at the 3 plants shall be limited to less than 245.4 TPY

$$\begin{aligned}
 245.4 \text{ tons of SO2/year} \times 2000 \text{ pounds/ton} &= 490840 \text{ pounds of SO2 per year} \\
 142\text{S} &= 0.45\% \text{S} \times 142 \text{ lbs/kilogallon} && 63.9 \text{ lbs/kilogallon}
 \end{aligned}$$

$$\text{Fuel Oil limit} = 7681.377152 \text{ kilogallons/year at } 0.45\% \text{ S}$$

$$\text{Every gallon burned at } 0.1\% \text{S is equivalent to: } 0.222 \text{ at } 0.45\% \text{S fuel oil}$$