



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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TO: Interested Parties / Applicant
DATE: February 11, 2008
RE: Owens Corning Roofing & Asphalt, LLC / 047-24313-00005
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 according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

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

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

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

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

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

Enclosures
FNPER.dot12/03/07



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Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

**Owens Corning Roofing & Asphalt, LLC
128 W. Eighth Street
Brookville, Indiana 47012**

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

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

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

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

Operation Permit No.: F047-24313-00005	
Issued by: <i>Original document signed by</i> Chrystal Wagner, Section Chief Permits Branch Office of Air Quality	Issuance Date: February 11, 2008 Expiration Date: February 11, 2018

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary asphalt felt, coatings, and roofing products manufacturing source.

Source Address:	128 W. Eighth Street, Brookville, Indiana 47012
Mailing Address:	128 W. Eighth Street, Brookville, IN 47012
General Source Phone Number:	(765) 647-4131
SIC Code:	2952
County Location:	Franklin
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Rule Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

- (a) Five (5) fuel combustion emission units (EU) consisting of:
- (1) one (1) natural gas fired asphalt preheater #1 identified as EU 1.1, installed in 1991, rated at 2.5 million British thermal units (MMBtu) per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 65;
 - (2) one (1) natural gas fired asphalt preheater #2 (asphalt saturant preheater) identified as EU 1.2, installed in 1996, rated at 2.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 66;
 - (3) one (1) natural gas fired filler heater (asphalt saturant preheater) identified as EU 1.3, installed in 1979, rated at 2.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 15;
 - (4) one (1) natural gas fired hot oil heater identified as EU 1.4, installed in 1982, rated at 2.1 MMBtu per hour and using No. 2 fuel oil as a backup, exhausting at one (1) stack identified as 67; and
 - (5) one (1) natural gas fired hot oil heater identified as EU-NOH, installed in 2006, rated at 1.60 MMBtu per hour, and exhausting at one (1) stack identified as S-NOH.
- (b) Four (4) liquid storage tanks, consisting of:
- (1) one (1) 40,000 gallon capacity asphalt tank #1 identified as EU 2.1, installed in 1990, rated at 200 gallons per minute, with a fiber filter bed to control particulate matter, exhausting at one (1) stack identified as 71;

- (2) one (1) 10,000 gallon capacity adhesive tank #7 identified as EU 2.2, placed into service during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) stack identified as S101;
- (3) one (1) 10,000 gallon capacity adhesive tank #7A identified as EU 2.3, installed during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) stack identified as S102; and
- (4) one (1) 30,000 gallon capacity asphalt tank #2 identified as EU 3.1, installed in 1947, rated at 200 gallons per minute, exhausting at one (1) stack identified as 72.

Under the Standards of Performance for Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture [40 CFR Part 60, Subpart UU], the asphalt storage tank EU 2.1 is considered an affected facility.

- (c) Mineral storage facilities utilizing pneumatic conveying and controlled by baghouses, consisting of:
 - (1) one (1) filler silo #1 identified as EU 4.1, installed in 1979, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing ASmartimers® for controlling cleaning cycle frequency, each exhausting at one (1) individual stack identified as 74 and 75;
 - (2) one (1) filler silo #2 identified as EU 4.2, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing ASmartimers® for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 77;
 - (3) one (1) filler silo #4 identified as EU 4.3, installed in 1993, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing ASmartimers® for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 80 and 81;
 - (4) one (1) parting agent silo #3 identified as EU 4.4, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing ASmartimers® for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 79;
 - (5) one (1) parting agent use bin identified as EU 4.5, installed in 1991, rated at 27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse common to this facility, EU4.11, and EU 7.1, with the baghouse equipped with ASmartimers® for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 14;
 - (6) one (1) filler upper surge hopper identified as EU 4.7, installed in 1979, rated at 54 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing ASmartimers® for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 15A and 15B;
 - (7) one (1) filler lower surge hopper identified as EU 4.8, installed in 1979, rated at 27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing ASmartimers® for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 15C;

- (8) one (1) filler hopper identified as EU-NFH, installed in 2006, rated at 35 cubic feet per hour, equipped with bin vent filter for particulate matter control, and exhausting at one (1) stack identified as S-NFH;
- (9) one (1) surfacing material silo #7 identified as EU 4.10, installed in 1996, rated at 30 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse common to this facility and EU 4.9, all exhausting at one (1) stack identified as S100; and
- (10) one (1) surfacing material receiving bin rated at 30 thousand cubic feet per hour and identified as EU 4.11, installed in 1996, with particulate matter controlled by one (1) baghouse common to this facility, EU 4.5, and EU 7.1, with the baghouse equipped with ΔSmartimers® for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14.

Under the Standards of Performance for Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture [40 CFR Part 60, Subpart UU], mineral storage facilities (EU 4.2 through EU 4.5, EU 4.10, EU 4.11, and EU NFH) are considered affected facilities.

- (d) One (1) asphalt filler mixer identified as EU 5.1, rated at 300 gallons per minute, utilizing a screw conveyor for mineral filling and gravity flow for tank emptying, as an enclosed facility without an exhaust stack.
- (e) Five (5) facilities with a common production rate limit, consisting of:
 - (1) six (6) surfacing material silos #1 - #6 collectively identified as EU 4.9, installed after November 1980, with particulate matter controlled by one (1) baghouse common to this facility and EU 4.10, all exhausting at one (1) stack identified as S100;
 - (2) one (1) asphalt coater (coating rolls) and coating surge tank identified as EU 6.1, installed in 2006, with particulate matter controlled by one (1) fiber bed filter, exhausting at one (1) stack identified as 36;
 - (3) one (1) material surfacing applicator (material surfacing area) identified as EU 7.1, rated at 471 thousand cubic feet per hour with particulate matter controlled by one (1) baghouse common to this facility, EU 4.5, and EU 4.11, with the baghouse equipped with ΔSmartimers® for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14;
 - (4) one (1) cooling section identified as EU 7.2, installed in 2006, exhausting at two (2) stacks identified as 41 and 42; and
 - (5) fugitive emissions building ventilators, identified as ID# 93.

Under the Standards of Performance for Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture [40 CFR Part 60, Subpart UU], the asphalt coater and coating surge tank (EU 6.1) is considered an affected facility.

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

This stationary source also includes the following insignificant activities:

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British Thermal Units per hour. This includes one (1) 0.58 Million British Thermal Units per hour rated furnace, sixteen (16) 0.075 Million British Thermal Units per hour individually rated furnaces, and one (1) 0.25 Million British Thermal Units per hour rated boiler installed after 1983. [326 IAC 6-2-4]
- (b) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British Thermal Units per hour.
- (c) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British Thermal Units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British Thermal Units per hour.
- (d) Combustion source flame safety purging on startup.
- (e) The following VOC and HAP storage containers:
 - (1) storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons;
 - (2) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (f) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (g) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including two cold cleaning parts washers installed in 2000. [326 IAC 8-3-2]
- (h) Cleaners and solvents characterized as follows:
 - (1) having a vapor pressure equal to or less than 2 kilopascal (kPa); 15 millimeter of mercury; or 0.3 pounds per square inch measured at 38 degrees C (100 °F) or;
 - (2) having a vapor pressure equal to or less than 0.7 kilopascal (kPa); 5 millimeter of mercury; or 0.1 pounds per square inch measured at 20 °C (68 °F);the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (i) The following equipment related to manufacturing activities not resulting in the emission of hazardous air pollutants (HAPs); brazing equipment, cutting torches, soldering equipment welding equipment, including the total use of less than 625 pounds of welding consumables per day and less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness of less is cut.
- (j) Closed loop heating and cooling systems.
- (k) Noncontact cooling tower systems with forced and induced draft not regulated under NESHAP.

- (l) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (m) Process vessel degassing and cleaning to prepare for internal repairs.
- (n) Paved and unpaved roads and parking lots with public access, identified as ID# 91.
- (o) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (p) On-site fire and emergency response training approved by the department.
- (q) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (r) Additional activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day and VOC emissions below three (3) pounds per hour or fifteen (15) pounds per day:
 - (1) one (1) granule and sand reclaim system, identified as EU 6.2, with a maximum capacity of 4 tons of granules and sand per day, exhausting through one stack identified as 71A. The potential emissions from this activity are calculated to be 0.0136 pounds per day;
 - (2) one (1) parting agent recycle system rated at 27 thousand cubic feet per hour and identified as EU 4.6;
 - (3) VOC emissions from pumps, valves, flanges, etc., identified as ID# 92;
 - (4) fugitive particulate matter emissions from material unloading, identified as ID# 94;
 - (5) ink jet printer;
 - (6) application of adhesive to asphalt coated product, using up to one (1) ton per hour adhesive, including:
 - (A) adhesive use tank #1;
 - (B) adhesive melt tank #1;
 - (C) adhesive melt tank #2;
 - (D) adhesive use tank #2;
 - (E) laminating adhesive use tank;
 - (F) laminating adhesive melt tank;
 - (G) adhesive applicator pan #1;
 - (H) adhesive applicator pan #2; and
 - (I) laminating adhesive applicator pan;

- (7) one (1) 180 gallon capacity adhesive mix tank identified as EU-NMT, installed in 2006, with particulate matter controlled by fiber bed filter, and exhausting to one stack identified as S-NMT; and
- (8) one (1) 545 gallon capacity Straco tank, installed in 2006, and used for re-circulating hot oil around coating surge tank for heating.

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

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

SECTION B GENERAL CONDITIONS

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

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

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

-
- (a) This permit, F047-24313-00005, 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, until the renewal permit has been issued or denied.

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

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

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

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

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

B.5 Severability [326 IAC 2-8-4(4)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

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

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

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

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

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

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

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

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,
Compliance 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 2-8-4(3)(C)(ii) and must contain the following:

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

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

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

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

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

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

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

- (a) All terms and conditions of permits established prior to F047-24313-00005 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

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

B.17 Permit Renewal [326 IAC 2-8-3(h)]

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

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
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 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
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 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

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

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

B.20 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

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

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

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

B.24 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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

(a) Pursuant to 326 IAC 2-8:

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

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

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

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

C.3 Opacity [326 IAC 5-1]

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

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

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

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

C.6 Fugitive Dust Emissions [326 IAC 6-4]

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

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

C.8 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.11 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.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

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

C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

- (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; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;

- (2) monitor performance data, if applicable; and
- (3) corrective actions taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

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

C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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.18 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

SECTION D.1

FACILITY OPERATION CONDITIONS

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

- (a) Five (5) fuel combustion emission units (EU) consisting of:
- (1) one (1) natural gas fired asphalt preheater #1 identified as EU 1.1, installed in 1991, rated at 2.5 million British thermal units (MMBtu) per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 65;
 - (2) one (1) natural gas fired asphalt preheater #2 (asphalt saturant preheater) identified as EU 1.2, installed in 1996, rated at 2.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 66;
 - (3) one (1) natural gas fired filler heater (asphalt saturant preheater) identified as EU 1.3, installed in 1979, rated at 2.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 15;
 - (4) one (1) natural gas fired hot oil heater identified as EU 1.4, installed in 1982, rated at 2.1 MMBtu per hour and using No. 2 fuel oil as a backup, exhausting at one (1) stack identified as 67; and
 - (5) one (1) natural gas fired hot oil heater identified as EU-NOH, installed in 2006, rated at 1.60 MMBtu per hour, and exhausting at one (1) stack identified as S-NOH.

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

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

D.1.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3] [326 IAC 6-2-4]

- (a) Pursuant to 326 IAC 6-2-3(d), PM emissions from the hot oil heater (EU 4.1) rated at 2.1 MMBtu/hr, which began operation after June 8, 1972, shall be limited to 0.6 pounds of particulate matter per million British thermal units heat input.
- (b) Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), PM emissions from the hot oil heater (EU-NOH), which began operation after September 21, 1983, shall be limited to 0.6 pounds per MMBtu heat input.

SECTION D.2

FACILITY OPERATION CONDITIONS

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

- (b) Four (4) liquid storage tanks, consisting of:
- (1) one (1) 40,000 gallon capacity asphalt tank #1 identified as EU 2.1, installed in 1990, rated at 200 gallons per minute, with a fiber filter bed to control particulate matter, exhausting at one (1) stack identified as 71;
 - (2) one (1) 10,000 gallon capacity adhesive tank #7 identified as EU 2.2, placed into service during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) stack identified as S101;
 - (3) one (1) 10,000 gallon capacity adhesive tank #7A identified as EU 2.3, installed during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) stack identified as S102; and
 - (4) one (1) 30,000 gallon capacity asphalt tank #2 identified as EU 3.1, installed in 1947, rated at 200 gallons per minute, exhausting at one (1) stack identified as 72.

Under the Standards of Performance for Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture [40 CFR Part 60, Subpart UU], asphalt storage tank EU 2.1 is considered an affected facility.

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

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

D.2.1 Volatile Organic Compounds (VOC) and Particulate Matter (PM and PM-10) [326 IAC 2-8-4] [326 IAC 2-2]

- (a) The total combined throughput to asphalt tanks #1 (EU 2.1) and #2 (EU 3.1) is limited to 28,502,400 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The throughput to each of adhesive tanks #7 (EU 2.2) and #7A (EU 2.3) is limited to 1,295,640 gallons per twelve (12) consecutive months with compliance determined at the end of each month.

This usage limit, combined with the PM/PM10 and VOC emission limits for other significant activities listed in Sections D.3 and D.4 and all insignificant activities, is required to limit the source-wide potential to emit of PM/PM10 and VOC to less than 100 tons per year.

Compliance with this condition shall make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source.

D.2.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for facilities EU 2.1, EU 2.2, EU 2.3 and EU 3.1 and the relevant control devices.

D.2.3 Particulate [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the following facilities shall be limited as follows:

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:

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

Emission Unit/Activity	Process Weight Rate (tons/hr)	Allowable Emissions (326 IAC 6-3-2) (lb/hr)
Asphalt Storage Tank (EU 2.1)	30.79	40.18
Asphalt Storage Tank (EU 3.1)	30.79	40.18

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11] [40 CFR 60.474] [326 IAC 12]

Within 180 days after issuance of this permit F047-24313-00005, in order to determine compliance with 40 CFR 60, Subpart UU requirements, the Permittee shall perform Opacity testing for operation EU 2.1, utilizing the methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

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

D.2.5 Visible Emissions Notations

- (a) Daily visible emission notations of the EU 2.1 fiber bed filter stack exhaust shall be performed during normal daylight operations.
- (b) Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record "yes" or "no" whether emissions are observed. The "yes" means visible emissions are observed and the "no" means that visible emissions are not observed.
- (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 emissions are observed (a "yes" is recorded), 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.2.6 Parametric Monitoring

The Permittee shall record the pressure drop across the fiber bed filter for EU 2.1 at least once per day when each storage tank is in operation. When for any one reading, the pressure drop across any of the fiber bed filters is outside the normal range of 0.25 and 10 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.

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.2.7 Broken or Failed Filter Detection

In the event that bag failure has been observed:

- (a) For a fiber bed filter 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 fiber bed filter 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 line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.2.8 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.2.3:
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Total combined throughput to asphalt tanks #1 (EU 2.1) and #2 (EU 3.1) per month since the last compliance determination period; and
 - (3) The throughput to each of adhesive tanks #7 (EU 2.2) and #7A (EU 2.3) per month since the last compliance determination period.
- (b) To document compliance with Condition D.2.5, the Permittee shall maintain records of daily visible emission notations of the EU 2.1 fiber bed filter stack exhaust. 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, (i.e. the process did not operate that day).
- (c) To document compliance with Condition D.2.6, the Permittee shall maintain records once per day of the pressure drop across the fiber bed filter controlling EU 2.1. 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, (i.e. the process did not operate that day).

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

D.2.9 Reporting Requirements

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

New Source Performance Standards (NSPS) Requirements [326 IAC 12-1]

D.2.10 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR Part 60, Subpart UU, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1-1, for tank EU 2.1, as specified in Appendix A of 40 CFR Part 60, in accordance with the schedule in 40 CFR Part 60, Subpart UU.

D.2.11 NSPS (Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture) Requirements [40 CFR Part 60, Subpart UU] [326 IAC 12-1]

The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart UU, which are incorporated by reference as 326 IAC 12-1, for tank EU 2.1, as specified as follows:

§ 60.470 Applicability and designation of affected facilities.

(a) The affected facilities to which this subpart applies are each saturator and each mineral handling and storage facility at asphalt roofing plants; and each asphalt storage tank and each blowing still at asphalt processing plants, petroleum refineries, and asphalt roofing plants.

(b) Any saturator or mineral handling and storage facility under paragraph (a) of this section that commences construction or modification after November 18, 1980, is subject to the requirements of this subpart. Any asphalt storage tank or blowing still that processes and/or stores asphalt used for roofing only or for roofing and other purposes, and that commences construction or modification after November 18, 1980, is subject to the requirements of this subpart.

Any asphalt storage tank or blowing still that processes and/or stores only nonroofing asphalts and that commences construction or modification after May 26, 1981, is subject to the requirements of this subpart.

§ 60.471 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.

Afterburner (A/B) means an exhaust gas incinerator used to control emissions of particulate matter.

Asphalt processing means the storage and blowing of asphalt.

Asphalt processing plant means a plant which blows asphalt for use in the manufacture of asphalt products.

Asphalt roofing plant means a plant which produces asphalt roofing products (shingles, roll roofing, siding, or saturated felt).

Asphalt storage tank means any tank used to store asphalt at asphalt roofing plants, petroleum refineries, and asphalt processing plants. Storage tanks containing cutback asphalts (asphalts diluted with solvents to reduce viscosity for low temperature applications) and emulsified asphalts (asphalts dispersed in water with an emulsifying agent) are not subject to this regulation.

Blowing still means the equipment in which air is blown through asphalt flux to change the softening point and penetration rate.

Catalyst means a substance which, when added to asphalt flux in a blowing still, alters the penetrating-softening point relationship or increases the rate of oxidation of the flux.

Coating blow means the process in which air is blown through hot asphalt flux to produce coating asphalt. The coating blow starts when the air is turned on and stops when the air is turned off.

Electrostatic precipitator (ESP) means an air pollution control device in which solid or liquid particulates in a gas stream are charged as they pass through an electric field and precipitated on a collection surface.

High velocity air filter (HVAF) means an air pollution control filtration device for the removal of sticky, oily, or liquid aerosol particulate matter from exhaust gas streams.

Mineral handling and storage facility means the areas in asphalt roofing plants in which minerals are unloaded from a carrier, the conveyor transfer points between the carrier and the storage silos, and the storage silos.

Saturator means the equipment in which asphalt is applied to felt to make asphalt roofing products. The term saturator includes the saturator, wet looper, and coater.

[47 FR 34143, Aug. 6, 1982, as amended at 65 FR 61762, Oct. 17, 2000]

§ 60.472 Standards for particulate matter.

...

(c) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any asphalt storage tank exhaust gases with opacity greater than 0 percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period. If, however, the emissions from any asphalt storage tank(s) are ducted to a control device for a saturator, the combined emissions shall meet the emission limit contained in paragraph (a) of this section during the time the saturator control device is operating. At any other time the asphalt storage tank(s) must meet the opacity limit specified above for storage tanks.

...

[47 FR 34143, Aug. 6, 1982, as amended at 65 FR 61762, Oct. 17, 2000]

...

SECTION D.3

FACILITY OPERATION CONDITIONS

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

- (c) Mineral storage facilities utilizing pneumatic conveying and controlled by baghouses, consisting of:
 - (1) one (1) filler silo #1 identified as EU 4.1, installed in 1979, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing Smartimers for controlling cleaning cycle frequency, each exhausting at one (1) individual stack identified as 74 and 75;
 - (2) one (1) filler silo #2 identified as EU 4.2, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing Smartimers for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 77;
 - (3) one (1) filler silo #4 identified as EU 4.3, installed in 1993, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing Smartimers for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 80 and 81;
 - (4) one (1) parting agent silo #3 identified as EU 4.4, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing Smartimers for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 79;
 - (5) one (1) parting agent use bin identified as EU 4.5, installed in 1991, rated at 27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse common to this facility, EU4.11, and EU 7.1, with the baghouse equipped with Smartimers for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 14;
 - (6) one (1) filler upper surge hopper identified as EU 4.7, installed in 1979, rated at 54 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing Smartimers for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 15A and 15B;
 - (7) one (1) filler lower surge hopper identified as EU 4.8, installed in 1979, rated at 27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing Smartimers for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 15C;
 - (8) one (1) filler hopper identified as EU-NFH, installed in 2006, rated at 35 cubic feet per hour, equipped with bin vent filter for particulate matter control, and exhausting at one (1) stack identified as S-NFH;
 - (9) one (1) surfacing material silo #7 identified as EU 4.10, installed in 1996, rated at 30 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse common to this facility and EU 4.9, all exhausting at one (1) stack identified as S100; and

- (10) one (1) surfacing material receiving bin rated at 30 thousand cubic feet per hour and identified as EU 4.11, installed in 1996, with particulate matter controlled by one (1) baghouse common to this facility, EU 4.5, and EU 7.1, with the baghouse equipped with Smartimers for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14.

Under the Standards of Performance for Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture [40 CFR Part 60, Subpart UU], mineral storage facilities (EU 4.2 through EU 4.5, EU 4.10, EU 4.11, and EU NFH) are considered affected facilities.

- (e) Five (5) facilities with a common production rate limit, consisting of:

- (1) six (6) surfacing material silos #1 - #6 collectively identified as EU 4.9, installed after November 1980, with particulate matter controlled by one (1) baghouse common to this facility and EU 4.10, all exhausting at one (1) stack identified as S100;
- (2) one (1) asphalt coater (coating rolls) and coating surge tank identified as EU 6.1, installed in 2006, with particulate matter controlled by one (1) fiber bed filter, exhausting at one (1) stack identified as 36;
- (3) one (1) material surfacing applicator (material surfacing area) identified as EU 7.1, rated at 471 thousand cubic feet per hour with particulate matter controlled by one (1) baghouse common to this facility, EU 4.5, and EU 4.11, with the baghouse equipped with Smartimers for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14;
- (4) one (1) cooling section identified as EU 7.2, installed in 2006, exhausting at two (2) stacks identified as 41 and 42; and
- (5) fugitive emissions building ventilators, identified as ID# 93.

Under the Standards of Performance for Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture [40 CFR Part 60, Subpart UU], asphalt coater and coating surge tank (EU 6.1) is considered an affected facility.

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

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

D.3.1 Particulate [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the following facilities shall be limited as follows:

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:

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

and

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
 P = process weight rate in tons per hour.

Emission Unit/Activity	Process Weight Rate (tons/hr)	Allowable Emissions (326 IAC 6-3-2) (lb/hr)
Filler Silo #1 (EU 4.1)	22.5	33.02
Filler Silo #2 (EU 4.2)	22.5	33.02
Filler Silo #4 (EU 4.3)	22.5	33.02
Filler Silo #3 (EU 4.4)	2.2	6.95
Filler Upper Surge Hopper (EU 4.7)	22.5	33.02
Filler Lower Surge Hopper (EU 4.8)	22.5	33.02
Surfacing Material Silos #1 through #6 (EU 4.9) and Surfacing Material Silo #7 (EU 4.10)	17.2	27.58
Parting Agent Use Bin #1 (EU 4.5), Surfacing Material Receiving Bin (EU 4.11), and Surfacing Material Applicator (EU 7.1)	55.2	45.50
Filler Receiving Hopper Bin Vent Filer (EU NFH)	0.2	1.44
Asphalt Coater / Surge tank (EU 6.1)	35.8	41.52
Cooling Section (EU 7.2)	55.2	45.50

D.3.2 Particulate Matter (PM and PM-10) Emission Limitations [326 IAC 2-8-4][326 IAC 2-2]

PM and PM-10 emitted from the control device of each facility shall be limited 0.02 grains per dry standard cubic foot of exhaust gas. This limitation is equivalent to the following:

Emission Unit/Activity	Control Device Fan Flow Rate (cfm)	Equivalent PM/PM10 Emissions (lb/hr)
Filler Silo #1 (EU 4.1)	1,070	0.18
Filler Silo #2 (EU 4.2)	535	0.09
Filler Silo #4 (EU 4.3)	1,070	0.18
Filler Silo #3 (EU 4.4)	535	0.09
Filler Upper Surge Hopper (EU 4.7)	900	0.15
Filler Lower Surge Hopper (EU 4.8)	450	0.08
Surfacing Material Silos #1 through #6 (EU 4.9) and Surfacing Material Silo #7 (EU 4.10)	10,400	1.78
Parting Agent Use Bin #1 (EU 4.5), Surfacing Material Receiving Bin (EU 4.11), and Surfacing Material Applicator (EU 7.1)	7,850	1.35
Filler Receiving Hopper Bin Vent Filer (EU NFH)	244	0.04

Compliance with this condition, combined with PM10 limits outlined in Condition D.3.3 and emissions from all insignificant activities, shall limit the source-wide potential to emit of PM and PM-10 to less than 100 tons per 12 consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) are not applicable to this source for emissions of PM-10. Compliance with this condition shall also make the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD), not applicable to this source.

D.3.3 VOC and PM/PM10 Limits [326 IAC 2-8-4(1)] [326 IAC 2-2]

- (a) The production of asphalt products at each facility (EU 4.9, 6.1, 7.1, 7.2, and ID# 93) shall be limited to 454,200 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) PM/PM10 emissions from asphalt coater and surge tank (EU 6.1) shall not exceed 0.071 pounds per ton of asphalt product produced.
- (c) VOC emissions from asphalt coater and surge tank (EU 6.1) shall not exceed 0.091 pounds per ton of asphalt product produced.
- (d) VOC emissions from material surfacing applicator (EU 7.1) shall not exceed 0.003 pounds per ton of asphalt product produced.
- (e) PM/PM10 emissions from cooling section (EU 7.2) shall not exceed 0.27 pounds per ton of asphalt product produced.
- (f) VOC emissions from cooling section (EU 7.2) shall not exceed 0.035 pounds per ton of asphalt product produced.

- (g) PM/PM10 emissions from building ventilators (ID# 93) shall not exceed 0.0357 pounds per ton of asphalt product produced.
- (h) VOC emissions from building ventilators (ID# 93) shall not exceed 0.0973 pounds per ton of asphalt product produced.

Compliance with the above emission limits plus the emissions from the storage tanks, and all insignificant activities, shall limit the source-wide VOC and PM/PM10 emissions to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) do not apply. These limits will also render 326 IAC 2-2 (PSD) not applicable.

D.3.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their respective control devices.

Compliance Determination Requirements

D.3.5 Particulate and Particulate Matter (PM and PM-10) Control

The baghouses, bin vent filters and fiber bed filters for PM and PM10 control shall be in operation and control emissions from the facilities facilities EU 4.1 through 4.5, EU 4.7 through 4.11, EU 6.1, EU 7.1 and EU NFH at all times that these facilities are in operation.

D.3.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11] [40 CFR 60.474] [326 IAC 12]

- (a) Within 180 days after issuance of this permit F047-24313-00005, in order to determine compliance with 40 CFR 60, Subpart UU requirements, the Permittee shall perform an Opacity test for operations EU 4.2 through EU 4.5, and EU 4.9 through 4.11, and EU NFH, utilizing the methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.
- (b) Within 180 days after issuance of this permit F047-24313-00005, in order to determine compliance with with 40 CFR 60, Subpart UU requirements, the Permittee shall perform an Opacity test and PM emission stack testing for operation EU 6.1, utilizing the methods as approved by the Commissioner. This test shall be repeated at least once every five 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 Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.7 Visible Emissions Notations

- (a) Daily visible emissions notations of the respective EU 4.1 through EU 4.5, EU 4.7 through EU 4.11, EU NFH, EU 6.1, EU 7.1, and EU 7.2 stack exhaust shall be performed during normal daylight operations.
- (b) Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record "yes" or "no" whether emissions are observed. The "yes" means visible emissions are observed and the "no" means that visible emissions are not observed.
- (c) 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.

- (d) 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.
- (e) 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.
- (f) If emissions are observed (a "yes" is recorded), 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.3.8 Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the respective baghouses and bin vent filter used in conjunction with each facility (EU 4.1 through EU 4.5, EU 4.7 through EU 4.11, and EU NFH) at least once per day when each facility is in operation. During periods of inclement weather, these readings shall be performed as weather permits. When for any one reading, the pressure drop across each baghouse and bin vent filter is outside the normal range of 0.25 and 8 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 Permittee shall record the pressure drop across the fiber bed filter and the baghouse respectively used in conjunction with EU 6.1, EU 7.1, at least once per day when each facility is in operation. During periods of inclement weather, these readings shall be performed as weather permits. When for any one reading, the pressure drop across fiber bed filter or the baghouse is outside the normal ranges of 4 and 20 inches of water and 0.25 and 10 inches of water, respectively, 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.
- (c) 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. Those baghouses utilizing "Smartimers" (factor-calibrated instruments used for determining the pressure drop of dust collectors which do not require field calibration) shall be subject to approval by IDEM, OAQ, but shall not be subject to calibration at least once every six (6) months.

D.3.9 Broken or Failed Filter and Bag Detection

In the event that filter or bag failure has been observed:

- (a) For a fiber bed filter and 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 fiber bed filter and 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 line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.3.10 Record Keeping Requirements

- (a) To document compliance with Condition D.3.7, the Permittee shall maintain records of daily visible emission notations of EU 4.1 through EU 4.5, EU 4.7 through EU 4.11, EU NFH, EU 6.1, EU 7.1, and EU 7.2 stack exhaust. 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, (i.e. the process did not operate that day).
- (b) To document compliance with Condition D.3.8, the Permittee shall maintain records once per day of the pressure drop across the fiber bed filter or a baghouse controlling EU 4.1 through EU 4.5, EU 4.7 through EU 4.11, EU NFH, EU 6.1, and EU 7.1. 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, (i.e. the process did not operate that day). During periods of inclement weather, a log must be kept of dates when readings are not taken.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

New Source Performance Standards (NSPS) Requirements [326 IAC 12-1]

D.1.10 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR Part 60, Subpart UU, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1-1, for the asphalt coater/coating surge tank EU 6.1, and the mineral handling and storage facilities (EU 4.2 through EU 4.5 and EU 4.9 through EU 4.11), as specified in Appendix A of 40 CFR Part 60, in accordance with the schedule in 40 CFR Part 60, Subpart UU.

D.1.11 NSPS (Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture) Requirements [40 CFR Part 60, Subpart UU] [326 IAC 12-1]

The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart UU, which are incorporated by reference as 326 IAC 12-1, for the asphalt coater/coating surge tank EU 6.1, and the mineral handling and storage facilities (EU 4.2 through EU 4.5 and EU 4.9 through EU 4.11), as specified as follows:

§ 60.470 *Applicability and designation of affected facilities.*

- (a) The affected facilities to which this subpart applies are each saturator and each mineral handling and storage facility at asphalt roofing plants; and each asphalt storage tank and each blowing still at asphalt processing plants, petroleum refineries, and asphalt roofing plants.
- (b) Any saturator or mineral handling and storage facility under paragraph (a) of this section that commences construction or modification after November 18, 1980, is subject to the requirements of this subpart. Any asphalt storage tank or blowing still that processes and/or stores asphalt used for roofing only or for roofing and other purposes, and that commences construction or modification after November 18, 1980, is subject to the requirements of this subpart.

Any asphalt storage tank or blowing still that processes and/or stores only nonroofing asphalts and that commences construction or modification after May 26, 1981, is subject to the requirements of this subpart.

§ 60.471 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.

Afterburner (A/B) means an exhaust gas incinerator used to control emissions of particulate matter.

Asphalt processing means the storage and blowing of asphalt.

Asphalt processing plant means a plant which blows asphalt for use in the manufacture of asphalt products.

Asphalt roofing plant means a plant which produces asphalt roofing products (shingles, roll roofing, siding, or saturated felt).

Asphalt storage tank means any tank used to store asphalt at asphalt roofing plants, petroleum refineries, and asphalt processing plants. Storage tanks containing cutback asphalts (asphalts diluted with solvents to reduce viscosity for low temperature applications) and emulsified asphalts (asphalts dispersed in water with an emulsifying agent) are not subject to this regulation.

Blowing still means the equipment in which air is blown through asphalt flux to change the softening point and penetration rate.

Catalyst means a substance which, when added to asphalt flux in a blowing still, alters the penetrating-softening point relationship or increases the rate of oxidation of the flux.

Coating blow means the process in which air is blown through hot asphalt flux to produce coating asphalt. The coating blow starts when the air is turned on and stops when the air is turned off.

Electrostatic precipitator (ESP) means an air pollution control device in which solid or liquid particulates in a gas stream are charged as they pass through an electric field and precipitated on a collection surface.

High velocity air filter (HVAF) means an air pollution control filtration device for the removal of sticky, oily, or liquid aerosol particulate matter from exhaust gas streams.

Mineral handling and storage facility means the areas in asphalt roofing plants in which minerals are unloaded from a carrier, the conveyor transfer points between the carrier and the storage silos, and the storage silos.

Saturator means the equipment in which asphalt is applied to felt to make asphalt roofing products. The term saturator includes the saturator, wet looper, and coater.

[47 FR 34143, Aug. 6, 1982, as amended at 65 FR 61762, Oct. 17, 2000]

§ 60.472 Standards for particulate matter.

(a) On and after the date on which §60.8(b) requires a performance test to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any saturator:

(1) Particulate matter in excess of:

(i) 0.04 kg/Mg (0.08 lb/ton) of asphalt shingle or mineral-surfaced roll roofing produced, or

(ii) 0.04 kg/Mg (0.08 lb/ton) of saturated felt or smooth-surfaced roll roofing produced;

(2) Exhaust gases with opacity greater than 20 percent; and

(3) Any visible emissions from a saturator capture system for more than 20 percent of any period of consecutive valid observations totaling 60 minutes. Saturators that were constructed before November 18, 1980, and that have not been reconstructed since that date and that become subject to these standards through modification are exempt from the visible emissions standard. Saturators that have been newly constructed or reconstructed since November 18, 1980 are subject to the visible emissions standard.

...

(d) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any mineral handling and storage facility emissions with opacity greater than 1 percent.

[47 FR 34143, Aug. 6, 1982, as amended at 65 FR 61762, Oct. 17, 2000]

...

§ 60.474 Test methods and procedures.

(a) For saturators, the owner or operator shall conduct performance tests required in §60.8 as follows:

(1) If the final product is shingle or mineral-surfaced roll roofing, the tests shall be conducted while 106.6-kg (235-lb) shingle is being produced. (2) If the final product is saturated felt or smooth-surfaced roll roofing, the tests shall be conducted while 6.8-kg (15-lb) felt is being produced.

(2) If the final product is saturated felt or smooth-surfaced roll roofing, the tests shall be conducted while 6.8-kg (15-lb) felt is being produced.

...

(b) 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).

(c) The owner or operator shall determine compliance with the particulate matter standards in §60.472 as follows:

(1) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E=(c_s Q_{sd})/(PK)$$

where:

E=emission rate of particulate matter, kg/Mg (lb/ton).

c_s =concentration of particulate matter, g/dscm (gr/dscf).

Q_{sd} =volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P=asphalt roofing production rate or asphalt charging rate, Mg/hr (ton/hr).

K=conversion factor, 1000 g/kg [7000 (gr/lb)].

(2) Method 5A shall be used to determine the particulate matter concentration (c_s) and volumetric flow rate (Q_{sd}) of the effluent gas. For a saturator, the sampling time and sample volume for each run shall be at least 120 minutes and 3.00 dscm (106 dscf), and for the blowing still, at least 90 minutes or the duration of the coating blow or non-coating blow, whichever is greater, and 2.25 dscm (79.4 dscf).

(3) For the saturator, the asphalt roofing production rate (P) for each run shall be determined as follows: The amount of asphalt roofing produced on the shingle or saturated felt process lines shall be obtained by direct measurement. The asphalt roofing production rate is the amount produced divided by the time taken for the run.

...

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

(d) The Administrator will determine compliance with the standards in §60.472(a)(3) by using Method 22, modified so that readings are recorded every 15 seconds for a period of consecutive observations during representative conditions (in accordance with §60.8(c)) totaling 60 minutes. A performance test shall consist of one run.

...

[54 FR 6677, Feb. 14, 1989, as amended 54 FR 27016, June 27, 1989; 65 FR 61762, Oct. 17, 2000]

SECTION D.4 FACILITY OPERATION CONDITIONS

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

one (1) asphalt filler mixer identified as EU 5.1, rated at 300 gallons per minute, utilizing a screw conveyor for mineral filling and gravity flow for tank emptying, as an enclosed facility without an exhaust stack.

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

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

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

The throughput to the asphalt filler mixer (EU 5.1) shall be limited to 28,502,400 gallons per twelve (12) consecutive month period with compliance determined at the end of each month. This usage limit, combined with the VOC emission limits for other significant activities listed in Sections D.2 and D.3 and all insignificant activities, is required to limit the source-wide potential to emit of VOC to less than 100 tons per year.

Compliance with this limitation shall make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source. Compliance with this condition shall also make the requirements of 326 IAC 2-2 (PSD), not applicable to the source.

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

D.4.2 Record Keeping Requirements

(a) To document compliance with Condition D.4.1, the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.4.1:

- (1) Calendar dates covered in the compliance determination period;
- (2) The throughput to EU 5.1 per month since the last compliance determination period.

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

D.4.3 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the authorized individual as defined by 326 IAC 2-1.1-1(1).

SECTION D.5

FACILITY OPERATION CONDITIONS

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

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

- (a) natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units (Btu) per hour. This includes one (1) 0.25 Million British Thermal Units per hour rated boiler installed after 1983. [326 IAC 6-2-4]
- (b) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including two cold cleaning parts washers installed in 2000. [326 IAC 8-3-2]

(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 2-8-4(1)]

D.5.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), PM emissions from the 0.25 MMBtu/hr boiler, which began operation after September 21, 1983, shall be limited to 0.6 pounds per MMBtu heat input.

D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall ensure that the following requirements are met for each of the two (2) cold cleaning facilities installed in 2000:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Owens Corning Roofing & Asphalt, LLC
Source Address: 128 W. Eighth Street, Brookville, Indiana 47012
Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
FESOP Permit No.: F047-24313-00005

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

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

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

Source Name: Owens Corning Roofing & Asphalt, LLC
Source Address: 128 W. Eighth Street, Brookville, IN 47012
Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
FESOP Permit No.: F047-24313-00005

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) <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16 |
|---|

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: Owens Corning Roofing & Asphalt, LLC
 Source Address: 128 W. Eighth Street, Brookville, IN 47012
 Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
 FESOP No.: 047-24313-00005
 Facility: Four (4) liquid storage tanks EU 2.1, EU 2.2, EU 2.3, and EU 3.1
 Parameter: Storage Tank Material Throughput
 Limit: (a) The total combined throughput to asphalt tanks #1 (EU 2.1) and #2 (EU 3.1) is limited to 28,502,400 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.
 (b) The throughput to each of adhesive tanks #7 (EU 2.2) and #7A (EU 2.3) is limited to 1,295,640 gallons per twelve (12) consecutive months with compliance determined at the end of each month.

YEAR:

Month	Throughput This Month (gallons)			Throughput Previous 11 Months (gallons)			12 Month Total Throughput (gallons)		
	Total, EU2.1 & EU3.1	EU2.2	EU2.3	Total, EU2.1 & EU3.1	EU2.2	EU2.3	Total, EU2.1 & EU3.1	EU2.2	EU2.3
Month 1									
Month 2									
Month 3									

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

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Owens Corning Roofing & Asphalt, LLC
Source Address: 128 W. Eighth Street, Brookville, IN 47012
Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
FESOP No.: 047-24313-00005
Facility: Asphalt filler mixer (EU 5.1)
Parameter: Material Throughput
Limit: The throughput to the asphalt filler mixer (EU 5.1) is limited to 28,502,400 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Total Throughput This Month (gallons)	Total Throughput Previous 11 Months (gallons)	12 Month Total Throughput (gallons)
Month 1			
Month 2			
Month 3			

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

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Owens Corning Roofing & Asphalt, LLC
 Source Address: 128 W. Eighth Street, Brookville, IN 47012
 Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
 FESOP No.: 047-24313-00005
 Facility: The five (5) facilities EU 4.9 (surfacing material silos #1 - #6 collectively), EU 6.1 (asphalt coater and surge tank), EU 7.1 (material surfacing applicator), EU 7.2 (cooling section), and ID #93 (fugitive emissions building ventilators)
 Parameter: Asphalt product production rate
 Limit: The production of asphalt product at each facility is limited to 454,200 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Asphalt Product * Produced This Month (tons)	Asphalt Product * Produced Previous 11 Months (tons)	12 Month Asphalt Product Produced (tons)
Month 1			
Month 2			
Month 3			

* Specify the greatest production rate, if the rates differ among the five (5) subject facilities.

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

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

Attach a signed certification to complete this report.

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

Source Name: Owens Corning Roofing & Asphalt, LLC
 Source Address: 128 W. Eighth Street, Brookville, IN 47012
 Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
 FESOP Permit No.: F047-24313-00005

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

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 ΔNo deviations occurred this reporting period@.	
<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 Federally Enforceable State
Operating Permit (FESOP)

Source Name: Owens Corning Roofing and Asphalt, LLC.
Source Location: 128 West Eighth Street, Brookville, Indiana 47012
County: Franklin
SIC Code: 2952
Operation Permit No.: F047-24313-00005
Permit Reviewer: Stephanie Wilkerson

On December 19, 2007, the Office of Air Quality (OAQ) had a notice published in the Brookville Democrat in Brookville, Indiana, stating that Owens Corning Roofing and Asphalt, LLC had applied for a FESOP renewal for an asphalt felt, coatings, and roofing products manufacturing source. The notice also stated that OAQ proposed to issue a permit renewal for this operation and provided information on how the public could review the proposed permit renewal 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 renewal should be issued as proposed.

Comments on the proposed FESOP renewal were received on January 17, 2008 from Bill Ward, representing Owens Corning Roofing and Asphalt, LLC.

Changes to the permit are noted as follows: ~~struck~~ language has been deleted; **bold** language has been added. The Table of Contents has been modified to reflect these changes.

Comment 1: Permit Condition D.2.1(a) and Associated Reporting Form

The source requests that the combined throughput limit for the asphalt tanks #1 and #2 identified in permit Condition D.2.1(a) match the coinciding section and limit in the Technical Support Document (TSD) as "28,502,400 gallons per twelve (12) consecutive month period".

Response 1: Permit Condition D.2.1(a)

The permit shall be changed as follows:

D.2.1 Volatile Organic Compounds (VOC) and Particulate Matter (PM and PM-10) [326 IAC 2-8-4] [326 IAC 2-2]

- (a) The total combined throughput to asphalt tanks #1 (EU 2.1) and #2 (EU 3.1) is limited to ~~28,502,000~~ **28,502,400** gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

...

REPORTING FORM CHANGE:

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

FESOP Quarterly Report

Source Name: Owens Corning Roofing & Asphalt, LLC
Source Address: 128 W. Eighth Street, Brookville, IN 47012
Mailing Address: 128 W. Eighth Street, Brookville, IN 47012
FESOP No.: 047-24313-00005
Facility: Four (4) liquid storage tanks EU 2.1, EU 2.2, EU 2.3, and EU 3.1
Parameter: Storage Tank Material Throughput
Limit: (a) The total combined throughput to asphalt tanks #1 (EU 2.1) and #2 (EU 3.1) is limited to ~~28,502,000~~ **28,502,400** gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

...

Comment 2: Permit Condition D.3.8(b) and TSD

The source requests that the phrase "while the facility is in normal operation" be added to the parametric monitoring compliance section (permit Condition D.3.8(b) and TSD) to clarify that the respective normal ranges for the fiber bed filter and baghouse are for normal operating scenarios.

Response 2: Permit Condition D.3.8(b) and TSD

The parametric monitoring section states that the total pressure drop across the fiber bed filter and baghouse used with the asphalt coater (EU 6.1) and material surfacing applicator (EU 7.1) is to be taken at least once per day when each facility is *in operation*. The Permittee may decide when these readings are taken, as long as the facility is in operation. Taking a reading during start up and shut down periods, while at the discretion of the source, would not necessarily be considered a time when the facility is actually *in operation*.

The permit and TSD stand as written.

Comment 3: Facility Descriptions in TSD and Permit Sections A.2 and D.3

The source requests that the references to the maximum line speeds at the asphalt cooling section be removed from the descriptive sections in the TSD and permit sections A.2 and D.3 as they are not material to the permit.

Response 3: Facility Descriptions in TSD and Permit Sections A.2 and D.3

The TSD will not be changed to reflect the changes that will be made, instead relying on this Addendum to state all changes. The permit shall be changed as follows:

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

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

...

(e) Five (5) facilities with a common production rate limit, consisting of:

...

- (4) one (1) cooling section identified as EU 7.2 ~~with maximum line capacity of 750 ft/min~~, installed in 2006, exhausting at two (2) stacks identified as 41 and 42; and

...

SECTION D.3

FACILITY OPERATION CONDITIONS

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

...

(e) Five (5) facilities with a common production rate limit, consisting of:

- (1) six (6) surfacing material silos #1 - #6 collectively identified as EU 4.9, installed after November 1980, with particulate matter controlled by one (1) baghouse common to this facility and EU 4.10, all exhausting at one (1) stack identified as S100;
- (2) one (1) asphalt coater (coating rolls) and coating surge tank identified as EU 6.1, installed in 2006, with particulate matter controlled by one (1) fiber bed filter, exhausting at one (1) stack identified as 36;
- (3) one (1) material surfacing applicator (material surfacing area) identified as EU 7.1, rated at 471 thousand cubic feet per hour with particulate matter controlled by one (1) baghouse common to this facility, EU 4.5, and EU 4.11, with the baghouse equipped with Smartimers for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14;
- (4) one (1) cooling section identified as EU 7.2 ~~with maximum line capacity of 750 ft/min~~, installed in 2006, exhausting at two (2) stacks identified as 41 and 42; and
- (5) fugitive emissions building ventilators, identified as ID# 93.

Under the Standards of Performance for Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture [40 CFR Part 60, Subpart UU], asphalt coater and coating surge tank (EU 6.1) is considered an affected facility.

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

Comment 4: Permit Condition D.3.8(a) and TSD

To avoid confusion, the source requests that permit Condition D.3.8(a) and the monitoring table in the TSD be changed to not include the surface material silos #1 through #6 (EU 4.9) and material surface applicator (EU 7.1) in the compliance monitoring for the mineral storage facilities onsite. EU 7.1 has compliance monitoring requirements in permit Condition D.3.8(b), and the surface material silos (EU 4.9) are not mineral storage facilities.

Response 4: Permit Condition D.3.8(a) and TSD

The TSD will not be changed to reflect the changes that will be made, instead relying on this Addendum to state all changes. In order to both be clear and to make sure all applicable parametric monitoring is completed, the permit shall be changed as follows:

D.3.8 Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the respective baghouses and bin vent filter used in conjunction with each ~~mineral storage~~ facility (EU 4.1 through EU 4.5, EU 4.7 through EU 4.11, ~~EU 7.1~~, and EU NFH) at least once per day when each ~~mineral storage~~ facility is in operation. During periods of inclement weather, these readings shall be performed as weather permits. When for any one reading, the pressure drop across each baghouse and bin vent filter is outside the normal range of 0.25 and 8 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.

OAQ Changes:

The following changes are made to the Visible Emissions Notations requirements (permit Conditions D.2.5 and D.3.7) to ensure the proper actions are taken when emissions are noted from the respective processes:

D.2.5 Visible Emissions Notations

- (a) Daily visible emission notations of the EU 2.1 fiber bed filter stack exhaust shall be performed during normal daylight operations.
- (b) Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record "yes" or "no" whether emissions are observed. The "yes" means visible emissions are observed and the "no" means that visible emissions are not observed.
- (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 (**a "yes" is recorded**), 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.3.7 Visible Emissions Notations

- (a) Daily visible emissions notations of the respective EU 4.1 through EU 4.5, EU 4.7 through EU 4.11, EU NFH, EU 6.1, EU 7.1, and EU 7.2 stack exhaust shall be performed during normal daylight operations.
- (b) Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record "yes" or "no" whether emissions are observed. The "yes" means visible emissions are observed and the "no" means that visible emissions are not observed.
- (c) 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.
- (d) 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.
- (e) 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.
- (f) If ~~abnormal~~ emissions are observed (**a "yes" is recorded**), 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.

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

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

Source Background and Description

Source Name:	Owens Corning Roofing and Asphalt, LLC
Source Location:	128 West Eighth Street, Brookville, Indiana 47012
County:	Franklin
SIC Code:	2952
Permit Renewal No.:	F047-24313-00005
Permit Reviewer:	Adeel Yousuf / EVP

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Owens Corning Roofing and Asphalt, LLC relating to the operation of an asphalt felt, coatings, and roofing products manufacturing source.

History

On February 12, 2007, Owens Corning Roofing and Asphalt, LLC submitted an application to the OAQ requesting to renew its operating permit. Owens Corning Roofing and Asphalt, LLC was issued its first FESOP Renewal, F047-15014-00005, on November 12, 2002.

Permitted Emission Units and Pollution Control Equipment

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

- (a) Five (5) fuel combustion emission units (EU) consisting of:
- (1) one (1) natural gas fired asphalt preheater #1 identified as EU 1.1, installed in 1991, rated at 2.5 million British thermal units (MMBtu) per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 65;
 - (2) one (1) natural gas fired asphalt preheater #2 (asphalt saturant preheater) identified as EU 1.2, installed in 1996, rated at 2.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 66;
 - (3) one (1) natural gas fired filler heater (asphalt saturant preheater) identified as EU 1.3, installed in 1979, rated at 2.5 MMBtu per hour and using No.2 fuel oil as a backup, exhausting at one (1) stack identified as 15;
 - (4) one (1) natural gas fired hot oil heater identified as EU 1.4, installed in 1982, rated at 2.1 MMBtu per hour and using No. 2 fuel oil as a backup, exhausting at one (1) stack identified as 67; and
 - (5) one (1) natural gas fired hot oil heater identified as EU-NOH, installed in 2006, rated at 1.60 MMBtu per hour, and exhausting at one (1) stack identified as S-NOH.

- (b) Four (4) liquid storage tanks, consisting of:
- (1) one (1) 38,833 gallon capacity asphalt tank #1 identified as EU 2.1, installed in 1990, rated at 200 gallons per minute, with a fiber filter bed to control particulate matter, exhausting at one (1) stack identified as 71;
 - (2) one (1) 10,000 gallon capacity adhesive tank #7 identified as EU 2.2, placed into service during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) stack identified as S101;
 - (3) one (1) 10,000 gallon capacity adhesive tank #7A identified as EU 2.3, installed during or after 2002, rated at 200 gallons per minute, with particulate matter controlled by fiber bed filter, exhausting to one (1) stack identified as S102; and
 - (4) one (1) 30,000 gallon capacity asphalt tank #2 identified as EU 3.1, installed in 1947, rated at 200 gallons per minute, exhausting at one (1) stack identified as 72.

Under the Standards of Performance for Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture [40 CFR Part 60, Subpart UU], the asphalt storage tank EU 2.1 is considered an affected facility.

- (c) Mineral storage facilities utilizing pneumatic conveying and controlled by baghouses, consisting of:
- (1) one (1) filler silo #1 identified as EU 4.1, installed in 1979, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing ASmartimers® for controlling cleaning cycle frequency, each exhausting at one (1) individual stack identified as 74 and 75;
 - (2) one (1) filler silo #2 identified as EU 4.2, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing ASmartimers® for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 77;
 - (3) one (1) filler silo #4 identified as EU 4.3, installed in 1993, rated at 64.2 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing ASmartimers® for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 80 and 81;
 - (4) one (1) parting agent silo #3 identified as EU 4.4, installed in 1991, rated at 32.1 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing ASmartimers® for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 79;
 - (5) one (1) parting agent use bin identified as EU 4.5, installed in 1991, rated at 27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse common to this facility, EU4.11, and EU 7.1, with the baghouse equipped with ASmartimers® for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 14;
 - (6) one (1) filler upper surge hopper identified as EU 4.7, installed in 1979, rated at 54 thousand cubic feet per hour, with particulate matter controlled by two (2) baghouses utilizing ASmartimers® for controlling cleaning cycle frequency, with each exhausting at one (1) individual stack identified as 15A and 15B;

- (7) one (1) filler lower surge hopper identified as EU 4.8, installed in 1979, rated at 27 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse utilizing ΔSmartimers® for controlling cleaning cycle frequency, exhausting at one (1) stack identified as 15C;
- (8) one (1) filler hopper identified as EU-NFH, installed in 2006, rated at 35 cubic feet per hour, equipped with bin vent filter for particulate matter control, and exhausting at one (1) stack identified as S-NFH;
- (9) one (1) surfacing material silo #7 identified as EU 4.10, installed in 1996, rated at 30 thousand cubic feet per hour, with particulate matter controlled by one (1) baghouse common to this facility and EU 4.9, all exhausting at one (1) stack identified as S100; and
- (10) one (1) surfacing material receiving bin rated at 30 thousand cubic feet per hour and identified as EU 4.11, installed in 1996, with particulate matter controlled by one (1) baghouse common to this facility, EU 4.5, and EU 7.1, with the baghouse equipped with ΔSmartimers® for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14.

Under the Standards of Performance for Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture [40 CFR Part 60, Subpart UU], mineral storage facilities (EU 4.2 through EU 4.5, EU 4.10, EU 4.11, and EU NFH) are considered affected facilities.

(d) Five (5) facilities with a common production rate limit, consisting of:

- (1) six (6) surfacing material silos #1 - #6 collectively identified as EU 4.9, installed after November 1980, with particulate matter controlled by one (1) baghouse common to this facility and EU 4.10, all exhausting at one (1) stack identified as S100;
- (2) one (1) asphalt coater (coating rolls) and coating surge tank identified as EU 6.1, installed in 2006, with particulate matter controlled by one (1) fiber bed filter, exhausting at one (1) stack identified as 36;
- (3) one (1) material surfacing applicator (material surfacing area) identified as EU 7.1, rated at 471 thousand cubic feet per hour with particulate matter controlled by one (1) baghouse common to this facility, EU 4.5, and EU 4.11, with the baghouse equipped with ΔSmartimers® for controlling cleaning cycle frequency, all exhausting at one (1) stack identified as 14;
- (4) one (1) cooling section identified as EU 7.2 with maximum line capacity of 750 ft/min, installed in 2006, exhausting at two (2) stacks identified as 41 and 42; and
- (5) fugitive emissions building ventilators, identified as ID# 93.

Under the Standards of Performance for Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture [40 CFR Part 60, Subpart UU], the asphalt coater and coating surge tank (EU 6.1) is considered an affected facility.

(e) One (1) asphalt filler mixer identified as EU 5.1, rated at 300 gallons per minute, utilizing a screw conveyor for mineral filling and gravity flow for tank emptying, as an enclosed facility without an exhaust stack.

Insignificant Activities

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British Thermal Units per hour. This includes one (1) 0.58 Million British Thermal Units per hour rated furnace, sixteen (16) 0.075 Million British Thermal Units per hour individually rated furnaces, and one (1) 0.25 Million British Thermal Units per hour rated boiler installed after 1983. [326 IAC 6-2-4]
- (b) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British Thermal Units per hour.
- (c) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British Thermal Units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British Thermal Units per hour.
- (d) Combustion source flame safety purging on startup.
- (e) The following VOC and HAP storage containers:
 - (1) storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons;
 - (2) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (f) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (g) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including two cold cleaning parts washers installed in 2000. [326 IAC 8-3-2]
- (h) Cleaners and solvents characterized as follows:
 - (1) having a vapor pressure equal to or less than 2 kilopascal (kPa); 15 millimeter of mercury; or 0.3 pounds per square inch measured at 38 degrees C (100 °F) or;
 - (2) having a vapor pressure equal to or less than 0.7 kilopascal (kPa); 5 millimeter of mercury; or 0.1 pounds per square inch measured at 20 °C (68 °F);the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (i) The following equipment related to manufacturing activities not resulting in the emission of hazardous air pollutants (HAPs); brazing equipment, cutting torches, soldering equipment welding equipment, including the total use of less than 625 pounds of welding consumables per day and less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness of less is cut.
- (j) Closed loop heating and cooling systems.
- (k) Noncontact cooling tower systems with forced and induced draft not regulated under NESHAP.

- (l) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (m) Process vessel degassing and cleaning to prepare for internal repairs.
- (n) Paved and unpaved roads and parking lots with public access, identified as ID# 91.
- (o) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (p) On-site fire and emergency response training approved by the department.
- (q) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (r) Additional activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day and VOC emissions below three (3) pounds per hour or fifteen (15) pounds per day:
 - (1) one (1) granule and sand reclaim system, identified as EU 6.2, with a maximum capacity of 4 tons of granules and sand per day, exhausting through one stack identified as 71A. The potential emissions from this activity are calculated to be 0.0136 pounds per day;
 - (2) one (1) parting agent recycle system rated at 27 thousand cubic feet per hour and identified as EU 4.6;
 - (3) VOC emissions from pumps, valves, flanges, etc., identified as ID# 92;
 - (4) fugitive particulate matter emissions from material unloading, identified as ID# 94;
 - (5) ink jet printer;
 - (6) application of adhesive to asphalt coated product, using up to one (1) ton per hour adhesive, including:
 - (A) adhesive use tank #1;
 - (B) adhesive melt tank #1;
 - (C) adhesive melt tank #2;
 - (D) adhesive use tank #2;
 - (E) laminating adhesive use tank;
 - (F) laminating adhesive melt tank;
 - (G) adhesive applicator pan #1;
 - (H) adhesive applicator pan #2; and
 - (I) laminating adhesive applicator pan;

- (7) one (1) 180 gallon capacity adhesive mix tank identified as EU-NMT, installed in 2006, with particulate matter controlled by fiber bed filter, and exhausting to one stack identified as S-NMT; and
- (8) one (1) 545 gallon capacity Straco tank, installed in 2006, and used for re-circulating hot oil around coating surge tank for heating.

Existing Approvals

Since the issuance of the FESOP (F047-15014-00005) on November 12, 2002, the source has also constructed or has been operating under the following approvals:

- (a) Minor Permit Revision No. 047-23589-00005, issued on October 5, 2006.
- (b) Administrative Amendment No. 047-24150-00005, issued on February 6, 2007.

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 removed in this FESOP Renewal Permit:

FESOP No. 047-15014-00005, issued on November 12, 2002, Conditions D.1.1 (Fuel Usage Limitation), D.1.2 (Sulfur Dioxide), D.1.4 (Sulfur Dioxide Emissions and Sulfur Content), D.1.5 (Record Keeping Requirements), and D.1.6 (Reporting Requirements).

Above conditions are related to the fuel oil usage limit for EU 1.1, 1.2, 1.3, and 1.4. During this renewal it has been determined that the potential emissions for each criteria pollutant based on maximum fuel oil usage (i.e. maximum heat input rating for each heater) will not exceed the FESOP emissions threshold including the emissions from all other operations. Therefore there is no need to limit the fuel oil usage and have above conditions listed in the permit.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Franklin County

Pollutant	Status
PM ₁₀	Attainment
PM _{2.5}	Attainment
SO ₂	Attainment
NOx	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Franklin County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.
- (b) 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 emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone. Franklin County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (c) Franklin County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (e) 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.
- (f) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	1836.8
PM-10	1836.4
SO ₂	37.43
VOC	116.15
CO	65.61
NO _x	11.23

HAPs	tons/year
Hexane	1.474
Polycyclic Organic Matter (POM)	0.014
1,1,1 TCE	0.125
Manganese	0.487
Others	0.61
Total	2.71

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10 and VOC is equal to or greater than 100 tons per year. The source is subject to the provisions of 326 IAC 2-7. However, the source has agreed to limit its PM10 and VOC emissions to less than Title V levels, therefore the source will be issued a FESOP.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.
- (c) 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 (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

Actual Emissions

No previous emission data has been received from the source.

Potential to Emit After Issuance

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

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Process Heating Units (EU 1.1, 1.2, 1.3, and 1.4) ¹	0.99	0.60	20.90	0.23	3.53	6.01	0.11 (single) 0.10 (total)
Hot Oil Heater (EU NOH)	0.05	0.05	negl.	0.04	0.59	0.35	negl.
Asphalt Storage Tanks (EU 2.1 & 3.1) ²	1.26	1.26	0.51	4.45	2.01	--	negl.
Adhesive Storage Tanks (EU 2.2 & 2.3) ²	0.05	0.05	0.06	0.18	0.22	--	--
Mineral Storage Facilities (each controlled by baghouse - EU 4.1 through 4.5, 4.7 through 4.11, 7.1 & NFH)	17.31 ³	17.31 ³	--	0.68 ⁴	--	--	--
Asphalt Filler Mixer (EU 5.1)	0.97	0.97	0.51	3.42	2.01	--	--
Asphalt Coater & Surge Tank (EU 6.1)	1.61 ³	1.61 ³	1.60	20.67	1.14	--	0.014 (single) 0.02 (total)
Cooling Section (EU 7.2)	61.32	61.32	--	7.95	--	--	0.125 (single) 0.58 (total)
Building Ventilators (ID# 93)	8.08	8.08	--	20.54	--	--	0.48 (single) 0.63 (total)
Insignificant Activities ⁵	5.15	5.15	0.01	2.23	1.02	4.87	1.37 (single/total)
Total Emissions	96.78	96.39	23.58	60.40	10.53	11.23	1.37 (single) 2.71 (total)

Notes:

1. Emission rates reflect the greater of maximum natural gas firing or No. 2 oil firing.
2. Tanks 2.1, 2.2 and 2.3 each have a fiber bed filter for particulate control. For purposes of 326 IAC 2-8 compliance, operation of these controls is unnecessary and is not reflected in these emission rates. Only the material throughput limits are reflected in these emission rates.
3. Reflects the use of particulate control devices which shall be operated at all times the processes are in operation. Assumes all PM is equal to PM10.
4. VOC emissions are from the surfacing material application (EU 7.1) only.
5. Includes emissions from granule & sand reclaim system (EU 6.2), natural gas and LPG combustion; fugitive pump seals & flanges; hot oil loss (ID# 92); and cold cleaning (2 units).

- (a) This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.
- (b) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are not counted toward the determination of PSD applicability.

Federal Rule Applicability

- (a) The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable to this source. Generally, such requirements apply to a Part 70 source that involves a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, which meets the following criteria:
 - (1) The unit is subject to an emission limitation or standard for an applicable regulated air pollutant;

- (2) The unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard; and
- (3) The unit has a potential to emit before controls equal to or greater than the applicable Part 70 major source threshold for the regulated pollutant.

As a FESOP source, this source has accepted federally enforceable limits such that the requirements of 326 IAC 2-7 (Part 70) do not apply. Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not included in this permit.

- (b) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) for the 0.25 MMBtu/hr boiler (listed as an insignificant activity) are not included in the permit because the heat input rating of the boiler is less than 10 MMBtu/hr.
- (c) The requirements of the New Source Performance Standards for Storage Vessels For Petroleum Liquids For Which Construction, Reconstruction, Or Modification Commenced After June 11, 1973, And Prior To May 19, 1978 (40 CFR 60, Subpart K, 326 IAC 12) are not included in this permit for storage tank EU 3.1 because this tank was constructed prior to June 11, 1973. The requirements of the New Source Performance Standards for Storage Vessels For Petroleum Liquids For Which Construction, Reconstruction, Or Modification Commenced After June 11, 1973, And Prior To May 19, 1978 (40 CFR 60, Subpart K, 326 IAC 12) are not included in this permit for storage tanks EU 2.1, EU 2.2, and EU 2.3 because these tanks were constructed or modified after May 19, 1978.
- (d) The requirements of the New Source Performance Standards for Storage Vessels For Petroleum Liquids For Which Construction, Reconstruction, Or Modification Commenced After May 18, 1978, And Prior To July 23, 1984 (40 CFR 60, Subpart Ka, 326 IAC 12) are not included in this permit for storage tank EU 3.1 because this tank was constructed prior to May 18, 1978. The requirements of the New Source Performance Standards for Storage Vessels For Petroleum Liquids For Which Construction, Reconstruction, Or Modification Commenced After May 18, 1978, And Prior To July 23, 1984 (40 CFR 60, Subpart Ka, 326 IAC 12) are not included in this permit for storage tanks EU 2.1, EU 2.2, and EU 2.3 because these tanks were constructed after July 23, 1984.
- (e) The requirements of the New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) For Which Construction, Reconstruction, Or Modification Commenced After July 23, 1984 (40 CFR 60, Subpart Kb, 326 IAC 12) are not included in this permit for storage tank EU 3.1 because this tank was constructed prior to July 23, 1984.
- (f) The requirements of the New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) For Which Construction, Reconstruction, Or Modification Commenced After July 23, 1984 (40 CFR 60, Subpart Kb, 326 IAC 12) are not included in this permit for storage tanks EU 2.2 and EU 2.3 because each tank has capacity less than 75 cubic meters.
- (g) The requirements of the New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) For Which Construction, Reconstruction, Or Modification Commenced After July 23, 1984 (40 CFR 60, Subpart Kb, 326 IAC 12) are not included in the permit for asphalt storage tank EU 2.1 because the tank has a storage capacity greater than 75 cubic meters but less than 151 cubic meters, and the material stored in the tank has a maximum true vapor pressure of less than 15 kPa. Therefore, pursuant to 40 CFR 60.110b(b), this tank is exempt from this rule.

- (h) The requirements of New Source Performance Standard (40 CFR Part 60, Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture), apply to each saturator that commences construction or modification after November 18, 1980; each mineral handling and storage facility at asphalt roofing plants that commences construction or modification after November 18, 1980; and each asphalt storage tank and each blowing still at asphalt processing plants, petroleum refineries, and asphalt roofing plants that commences construction or modification after November 18, 1980.

The asphalt coater/coating surge tank EU 6.1 (i.e., saturator, as defined at 40 CFR 60.471); the mineral handling and storage facilities EU 4.2 through EU 4.5 and EU 4.9 through EU 4.11; and the asphalt storage tank EU 2.1 are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.470 through 60.474, Subpart UU), since each is an affected facility that was constructed after the rule applicability date of November 18, 1980.

Asphalt storage tank #2 (EU 3.1) is not subject to the requirements of Subpart UU since it was constructed in 1947 prior to the rule applicability date of November 18, 1980. Also, mineral handling and storage facilities EU 4.1, EU 4.7 and EU 4.8 were each constructed prior to November 18, 1980 and, therefore, are not subject to Subpart UU.

The asphalt storage tank EU 2.1 is subject to the following sections of 40 CFR 60, Subpart UU. Non-applicable portions of the NSPS are not included in the permit.

1. 40 CFR 60.470.
2. 40 CFR 60.471.
3. 40 CFR 60.472(c).

The asphalt coater/coating surge tank EU 6.1 is subject to the following sections of 40 CFR 60, Subpart UU. Non-applicable portions of the NSPS are not included in the permit.

1. 40 CFR 60.470.
2. 40 CFR 60.471.
3. 40 CFR 60.472(a)(1)(i) and (ii).
4. 40 CFR 60.472(a)(2).
5. 40 CFR 60.472(a)(3).
6. 40 CFR 60.474(a)(1).
7. 40 CFR 60.474(a)(2).
8. 40 CFR 60.474(b).
9. 40 CFR 60.474(c)(1).
10. 40 CFR 60.474(c)(2).
11. 40 CFR 60.474(c)(3).
12. 40 CFR 60.474(c)(5).
13. 40 CFR 60.474(d).

(Note: Pursuant to 40 CFR 60.473(a) (Monitoring of Operations), a source is required to continuously monitor and record the control device inlet gas temperature if it uses a high velocity air filter (e.g., fiber bed filter) to meet the emission limit in paragraph (A)(i) above. This source conducted IDEM approved stack testing of the asphalt coater (EU 6.1) in October 2000 and demonstrated compliance with the emission limit in paragraph (A)(i) without operating the fiber bed filter. Therefore, the requirements of 40 CFR 60.473(a) are not applicable to this source.

The mineral handling and storage facilities EU 4.2 through EU 4.6 and EU 4.9 through EU 4.11 are subject to the following sections of 40 CFR 60, Subpart UU. Non-applicable portions of the NSPS are not included in the permit.

1. 40 CFR 60.470.
2. 40 CFR 60.471.
3. 40 CFR 60.472(d).
4. 40 CFR 60.474(b).
5. 40 CFR 60.474(c)(5).

The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the tank loading rack except when otherwise specified in 40 CFR 60, Subpart UU.

- (i) The requirements of the New Source Performance Standards for Nonmetallic Mineral Processing Plants (40 CFR 60, Subpart OOO, 326 IAC 12) are not included in this permit for the mineral handling and storage facility since they are not located at a non-metallic mineral processing plant and there is no crushing or grinding of non-metallic minerals at the source.
- (j) The requirements of the National Emission Standards for Halogenated Solvent Cleaning, 326 IAC 20, (40 CFR 63, Subpart T) are not included for the cold cleaning degreasing operation since the source does not use any regulated halogenated solvents in the degreasing operation.
- (k) The requirements of the National Emission Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing, 326 IAC 20, (40 CFR 63, Subpart LLLLL) are not included in the permit for this facility, because this source is not a major source of HAPs.

State Rule Applicability - Entire Source

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

The existing source was constructed prior to the August 7, 1977 rule applicability date. This source is not considered a major source because it is not one of the 28 listed source categories and it has the potential to emit of less than 250 tons per year of all criteria pollutants, after controls. PM emissions from the source shall be limited to less than 250 tons per year after controls as shown below under FESOP limits. As a FESOP source, the total source wide PM10 and VOC emissions shall be limited to less than 100 tons per year (see 326 IAC 2-8-4 (FESOP) below for details of emission limits). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

326 IAC 2-6 (Emission Reporting)

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

326 IAC 2-8-4 (FESOP)

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

- (a) PM/PM10 emissions from the control device of each facility shall be limited to 0.02 grains per dry standard cubic foot of gas exhaust where PM and PM10 emissions are equal for these operations. This limitation is equivalent to the following:

Emission Unit/Activity	Control Device Fan Flow Rate (cfm)	Equivalent PM/PM10 Emissions (lb/hr)
Filler Silo #1 (EU 4.1)	1,070	0.18
Filler Silo #2 (EU 4.2)	535	0.09
Filler Silo #4 (EU 4.3)	1,070	0.18
Filler Silo #3 (EU 4.4)	535	0.09
Filler Upper Surge Hopper (EU 4.7)	900	0.15
Filler Lower Surge Hopper (EU 4.8)	450	0.08
Surfacing Material Silos #1 through #6 (EU 4.9) and Surfacing Material Silo #7 (EU 4.10)	10,400	1.78
Parting Agent Use Bin #1 (EU 4.5), Surfacing Material Receiving Bin (EU 4.11), and Surfacing Material Applicator (EU 7.1)	7,850	1.35
Filler Receiving Hopper Bin Vent Filer (EU NFH)	244	0.04

Above PM/PM10 emission limits are equivalent to annual emissions of 17.31 tons per year, based on the operation of 8760 hours per year.

- (b) The total combined throughput to asphalt tanks #1 (EU 2.1) and #2 (EU 3.1) shall be limited to less than 25,502,400 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (c) The throughput to each adhesive tank #7 (EU 2.2) and #7A (EU 2.3) shall be limited to less than 1,295,640 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

Based on the U.S. EPA AP-42 document, Section 7, the usage limits under items (b) and (c) are equivalent to limiting the potential to emit of VOC and PM/PM10 from the four (4) facilities to 4.63 and 1.31 ton per twelve (12) consecutive month period, respectively (See Appendix A, page 6 for emission calculations). Tanks 2.1, 3.1, 2.2 and 2.3 each have a fiber bed filter for particulate control. For purposes of 326 IAC 2-8 compliance, operation of these controls is unnecessary and is not reflected in the emission calculations. Only the material throughput limits are reflected in the emission rates.

- (d) The throughput to the asphalt filler mixer (EU 5.1) shall be limited to 28,502,400 gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

Based on the U.S. EPA AP-42 document, Section 7, the above usage limit is equivalent to limiting the potential to emit of VOC from EU 5.1 to 3.42 tons per twelve (12) consecutive month period (See Appendix A, page 6 for emission calculations).

- (e) The production of asphalt products at each facility (EU 4.9, 6.1, 7.1, 7.2, and ID# 93) shall be limited to 454,200 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (f) PM/PM10 emissions from asphalt coater and surge tank (EU 6.1) shall not exceed 0.071 pounds per ton of asphalt product produced. This is equivalent to PM10 emissions of 1.61 tons per twelve (12) consecutive month period.
- (g) VOC emissions from asphalt coater and surge tank (EU 6.1) shall not exceed 0.091 pounds per ton of asphalt product produced. This is equivalent to VOC emissions of 20.67 tons per twelve (12) consecutive month period.
- (h) VOC emissions from material surfacing applicator (EU 7.1) shall not exceed 0.003 pounds per ton of asphalt product produced. This is equivalent to VOC emissions of 0.68 tons per twelve (12) consecutive month period.
- (i) PM/PM10 emissions from cooling section (EU 7.2) shall not exceed 0.27 pounds per ton of asphalt product produced. This is equivalent to PM10 emissions of 61.32 tons per twelve (12) consecutive month period.
- (j) VOC emissions from cooling section (EU 7.2) shall not exceed 0.035 pounds per ton of asphalt product produced. This is equivalent to VOC emissions of 7.95 tons per twelve (12) consecutive month period.
- (k) PM/PM10 emissions from building ventilators (ID# 93) shall not exceed 0.0357 pounds per ton of asphalt product produced. This is equivalent to PM10 emissions of 8.08 tons per twelve (12) consecutive month period.
- (l) VOC emissions from building ventilators (ID# 93) shall not exceed 0.0973 pounds per ton of asphalt product produced. This is equivalent to VOC emissions of 20.54 tons per twelve (12) consecutive month period.

Compliance with the above emission limits shall limit the source-wide VOC and PM/PM10 emissions to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) do not apply. Since PM equals PM10 for the above operations, these limits will also render 326 IAC 2-2 (PSD) not applicable for both PM and PM10.

326 IAC 5-1 (Opacity Limitations)

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

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

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

State Rule Applicability – Individual Facilities

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

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control) because no new or reconstructed facility with a PTE of any single HAP at 10 tons per year or 25 tons per year of a combination of HAPs has been installed since July 27, 1997 and the source is not a major source for HAPs. Therefore, 326 IAC 2-4.1-1 does not apply.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

This rule is applicable to emission units with a potential to emit twenty-five (25) tons per year or ten (10) pounds per hour of sulfur dioxide. The total potential to emit SO₂ from combustion units EU 1.1, 1.2, 1.3, 1.4, and NOH, is each calculated to be less than 25 tons per year and less than 10 pounds per hour, therefore the requirements of 326 IAC 7-1.1 are not applicable.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

This source is subject to 326 IAC 6-2 for its indirect heating facilities that include the hot oil heater (EU 1.4), installed in 1982, and the hot oil heater (EU NOH) and 0.25 MMBtu per hour boiler, both installed after 1983. It is noted that each of asphalt preheaters #1 (EU 1.1) and preheater #2 (EU 1.2), and the filler heater (EU 1.3) are not subject to the rule because they are used to heat the piping that contains either asphalt or filler material. This direct method of heat transfer, from heated pipe to material, is not applicable under the provisions of 326 IAC 6-2. Therefore, the source shall comply as follows:

- (a) Pursuant to 326 IAC 6-2-3(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), particulate emissions from indirect heating units which began operation before September 21, 1983, shall be limited by the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

where:	Pt	= emission rate limit (lb PM / MMBtu)
	C	= maximum ground-level concentration (50 micrograms per cubic meter)
	a	= plume rise factor (0.67 for Q less than 1,000 MMBtu/hr)
	h	= stack height (29 feet)
	Q	= total source operating capacity rating (2.1 MMBtu/hr)
	N	= number of stacks in fuel burning operation (1)

The hot oil heater, identified as EU 1.4, with heat input rating of 2.1 MMBtu per hour, and constructed prior to September 21, 1983, firing natural gas or No. 2 fuel oil as a backup, is subject to 326 IAC 6-2-3 because the asphalt is heated indirectly through hot oil being heated first. Pursuant to this rule, particulate emissions shall be limited by the following equation:

$$Pt = \frac{50 \times 0.67 \times 29}{76.5 \times 2.1^{0.75} \times 1^{0.25}} = 7.28 \text{ lb/MMBtu}$$

The allowable particulate emission rate from the hot oil heater, based on the above equation, is 7.28 pounds per MMBtu heat input. However, pursuant to 326 IAC 6-2-3(e), the allowable particulate emission rate for any facility which has 250 MMBtu per hour heat input or less and which began operation after June 8, 1972, shall not exceed 0.6 pounds per MMBtu heat input. Therefore, the allowable particulate emission rate for the hot oil heater is 0.6 pounds of PM per MMBtu heat input.

EU 1.4 PM Compliance Determination (Natural Gas):
7.6 lb/MMscf * 1/1,020 (scf/btu) = 0.0074 lb PM/MMBtu

EU 1.4 PM Compliance Determination (No. 2 Fuel Oil):

$$3.3 \text{ lb/kgal} * 1\text{Kgal}/1,000 \text{ gal} * 1/140,000 \text{ gal/btu} * 1,000,000 \text{ btu/MMBtu} = 0.023 \text{ lb PM/MMBtu}$$

The hot oil heater (EU 1.4) emits a maximum of 0.023 pounds of PM per MMBtu heat input. Therefore, EU 1.4 will be able to comply with 326 IAC 6-2-3.

- (b) The hot oil heater (EU NOH) and 0.25 MMBtu/hr boiler are subject to 326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating) because each is a source of indirect heating. Pursuant to 326 IAC 6-2-4, particulate matter (PM) emissions from indirect heating facilities constructed after September 21, 1983 shall be limited by the following equation:

$$P_t = 1.09 / Q^{0.26}$$

where: P_t = pounds of PM emitted per MMBtu heat input (lb/MMBtu)

Q = total source operating capacity (MMBtu/hr) = 2.1 + 1.85 = 3.95 MMBtu/hr

$P_t = 1.09 / 3.95^{0.26} = 0.76 \text{ lb/MMBtu}$, however, pursuant to 326 IAC 6-2-4, for Q less than 10 MMBtu/hr, P_t shall not exceed 0.6 lb/MMBtu.

PM Compliance Determination:

$$7.6 \text{ lb/MMscf} * 1/1,020 \text{ (scf/btu)} = 0.0074 \text{ lb PM/MMBtu}$$

Actual lbs PM/MMBtu (0.0074) is less than allowable lbs PM/MMBtu (0.6), therefore the hot oil heater (EU 4.1) and 0.25 MMBtu/hr boiler will be able to comply with the requirements of 326 IAC 6-2-4.

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

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emitted from the facilities listed below shall be limited as stated, based on 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:

$$E = 4.10 P^{0.67}$$

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

and

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

$$E = 55.0 P^{0.11} - 40$$

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

Emission Unit/Activity	Process Weight Rate (tons/hr)	Uncontrolled Particulate Emissions (lb/hr)	Control Efficiency %	Controlled Particulate Emissions (lb/hr)	Allowable Emissions (326 IAC 6-3-2) (lb/hr)
Filler Silo #1 (EU 4.1)	22.5	18.34	99%	0.18	33.02
Filler Silo #2 (EU 4.2)	22.5	9.17	99%	0.09	33.02
Filler Silo #4 (EU 4.3)	22.5	18.34	99%	0.18	33.02
Filler Silo #3 (EU 4.4)	2.2	9.17	99%	0.09	6.95
Filler Upper Surge Hopper (EU 4.7)	22.5	15.43	99%	0.15	33.02
Filler Lower Surge Hopper (EU 4.8)	22.5	7.71	99%	0.08	33.02
Surfacing Material Silos #1 through #6 (EU 4.9) and Surfacing Material Silo #7 (EU 4.10)	17.2	178.28	99%	1.78	27.58
Parting Agent Use Bin #1 (EU 4.5), Surfacing Material Receiving Bin (EU 4.11), and Surfacing Material Applicator (EU 7.1)	55.2	134.57	99%	1.35	45.50
Filler Receiving Hopper Bin Vent Filer (EU NFH)	0.2	4.18	99%	0.04	1.44
Asphalt Coater / Surge tank (EU 6.1)	35.8	16.12	90%	1.61	41.52
Cooling Section (EU 7.2)	55.2	14.00	0%	14.00	45.50
Asphalt Storage Tank (EU 2.1)	30.79	0.947	0%	0.947	40.18
Asphalt Storage Tank (EU 3.1)	30.79	0.947	0%	0.947	40.18

The baghouses and fiber bed filers controlling facilities EU 4.1 through 4.5, EU 4.7 through 4.11, EU 7.1 and EU NFH, shall be in operation at all times the facilities are in operation, in order to comply with this limit.

- (b) Pursuant to 326 IAC 6-1-3(b)(14), Granule & Sand Reclaim System (EU 6.2) and parting agent recycle system (EU 4.6), and adhesive storage tanks (EU 2.2 and EU 2.3) are exempt from the rule requirements since the potential PM emissions for each are less than 0.551 pounds per hour.

326 IAC 8-1-6 (General Reduction Requirements)

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have potential volatile organic compound (VOC) emissions of 25 tons per year or more, and are not otherwise regulated by other provisions of Article 8. The facilities at this source do not have a potential to emit of VOC at 25 tons per year or more. Therefore, the requirements of 326 IAC 8-1-6 do not apply to this source.

326 IAC 8-3-2 (Cold Cleaner Operations)

The source, which is located in Franklin County and maintains two (2) cold cleaning parts wash tanks with capacities of less than 145 gallons (i.e., insignificant activities), is subject to the applicable rule requirements since the cleaners, installed in 2000, are new after January 1, 1980. As such, and pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the owner or operator shall ensure that the following requirements are met for each of the two (2) cold cleaning facilities installed in 2000:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

The source continues to comply with these requirements for the two (2) cold cleaning facilities.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The requirements of this rule apply to cold cleaning degreasers without remote solvent reservoirs that either existed as of July 1, 1990 and are located in a specified county, or the cleaning facility was constructed after July 1, 1990 and is located anywhere in the state. This source, located in Franklin County, which is a non-listed county, is not subject to the applicable rule requirements since the degreaser has a remote solvent reservoir.

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

Pursuant to 326 IAC 8-4-1 (Applicability) and 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities), all petroleum liquid storage vessels located in a specified county or new as of January 1, 1980, and having capacities greater than one hundred fifty thousand (150,000) liters (39,000 gallons) containing VOC whose true vapor pressure is greater than 10.5 kPa (1.52 psi), are subject to the rule. These facilities shall comply with the applicable requirements for external fixed and floating roof tanks and the specified record keeping and reporting requirements. Asphalt storage tank #1, EU 2.1, (40,000 gallons) is not subject to 326 IAC 8-4-3 because the liquid asphalt has a true vapor pressure less than the rule applicability threshold of 10.5 kPa, and asphalt tank #2 and adhesive tanks #7 and #7A each have capacities less than the rule applicability threshold capacity of 39,000 gallons.

326 IAC 8-6 (Organic Solvent Emission Limitations)

This rule applies to sources existing as of January 1, 1980, located in Lake and Marion Counties, as well as to sources commencing operation after October 7, 1974 and prior to January 1, 1980 that are located anywhere in the state, with potential VOC emissions of 100 tons per year or more, and not regulated by any other provision of Article 8. This source is located in Franklin County; was constructed prior to October 7, 1974; and, as a FESOP source, shall limit total VOC to less than 100 tons per year. Therefore, this rule does not apply to this source.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties)

The requirements of this rule apply to stationary sources located in Lake, Porter, Clark and Floyd Counties that emit or have the potential to emit VOCs at levels equal to or greater than 25 tons per year in Lake and Porter Counties; 100 tons per year in Clark and Floyd Counties; and to any coating facility that emits or has the potential to emit 10 tons per year or greater in Lake, Porter, Clark or Floyd County. The source is located in Franklin County. Therefore, this rule is not applicable to this source.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1, on and after October 1, 1995 stationary vessels used to store volatile organic liquids (VOL) must comply with the requirement of the rule if located in Clark, Floyd, Lake or Porter Counties. Stationary vessels with capacities less than 39,000 gallons are only subject to the reporting and record keeping requirements of the rule. This source is located in Franklin County. Therefore, this rule is not applicable to this source.

Testing Requirements

The source conducted a stack test in October 2000 and again in June 2001 for PM/PM10 emissions, and Opacity from EU 6.1 and EU 7.2. The stack test demonstrated compliance with the 40 CFR Part 60, Subpart UU, and 326 IAC 2-8-4 requirements in the permit.

Within 180 days after issuance of this permit, the Permittee shall perform testing for the asphalt coater & surge tank (EU 6.1), the mineral handling and storage facilities EU 4.2 through EU 4.6 and EU 4.9 through EU 4.11, and asphalt storage tank (EU 2.1) utilizing methods as approved by the Commissioner and as described below:

- (a) In order to demonstrate compliance with the PM emission limitations of 40 CFR 60, Subpart UU for EU 6.1, the Permittee shall perform PM testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5A.
- (b) In order to demonstrate compliance with the opacity limitation of 40 CFR 60, Subpart UU, the Permittee shall perform opacity testing for EU 2.1, EU 4.2 through EU 4.5, EU 4.9 through 4.11, and EU NFH, utilizing 40 CFR Part 60 Appendix A, Method 9.

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing.

Stack testing for all other facilities at the source is not required because either an AP-42 emission factor is used or the particulate matter emissions are controlled by baghouses with controlled emissions below the related allowable particulate matter emission rates, which require compliance monitoring; and none of the facilities meet any of the criteria which would require a stack test.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

The compliance determination requirements applicable to this source are as follows:

- (a) The emission units identified as EU 6.1, EU 2.1, EU 4.2 through EU 4.6, and EU 4.9 through 4.11 have applicable compliance determination conditions as specified below:

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
EU 6.1	Fiber bed filter	180 days	PM, Opacity	Once every 5 years	0.04 kg/mg, 20%
EU 2.1	Fiber bed filter	180 days	Opacity	Once every 5 years	0%
EU 4.2 through EU 4.5, EU 4.9 through 4.11, and EU NFH	Fiber bed filter and baghouse	180 days	Opacity	Once every 5 years	1%

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

Control	Parameter	Frequency	Range	Excursions and Exceedances
Fiber bed filter (EU 2.1, 2.2, and 2.3)	Water Pressure Drop	Daily	0.25 to 10 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Baghouses (EU 4.1 through 4.5, 4.7 through 4.11, 7.1 & NFH)	Water Pressure Drop	Daily	0.25 to 8 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Fiber bed filter (EU 6.1)	Water Pressure Drop	Daily	4 to 20 inches	Response Steps
	Visible emissions		Normal-Abnormal	
No Control (EU 7.2 and ID# 93)	Visible Emissions	Daily	Normal-Abnormal	Response Steps

- (1) The asphalt tank #1 (EU 2.1) has applicable compliance monitoring conditions as specified below:

- (A) Daily visible emission notation of the EU 2.1 fiber bed filter stack exhaust shall be performed during normal daylight operations. Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record *Ayes@* or *Ano@* whether emissions are observed. The *Ayes@* means visible emissions are observed and the *Ano@* means that visible emissions are not observed. 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. 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. If visible emissions are observed (i.e. yes), 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.
- (B) The Permittee shall record the pressure drop across the fiber bed filter for EU 2.1 at least once per day when each storage tank is in operation. When for any one reading, the pressure drop across any of the fiber bed filters is outside the normal range of 0.25 and 10 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.

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

(Note: The visible emission notation is required for EU 2.1 since it is the only asphalt storage facility affected by the visible emission requirement of 40 CFR 60, Subpart UU).

- (2) The mineral storage facilities EU 4.1 through 4.5, 4.7 through 4.11, 7.1 & NFH have applicable compliance monitoring conditions as specified below:
- (A) Daily visible emission notations of the EU 4.1 through 4.5, 4.7 through 4.11, 7.1 & NFH stack exhausts shall be performed during normal daylight operations. Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record *Ayes@* or *Ano@* whether emissions are observed. The *Ayes@* means visible emissions are observed and the *Ano@* means that visible emissions are not observed. 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. 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. If visible emissions are observed (i.e. yes), 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.

- (B) The Permittee shall record the pressure drop across the respective baghouse(s) used in conjunction with each mineral storage facility, at least once per day when each mineral storage facility is in operation. During periods of inclement weather, these readings shall be performed as weather permits. When for any one reading, the pressure drop across each baghouse is outside the normal range of 0.25 and 8 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.

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

(Note: The provision that, during periods of inclement weather, the readings only be taken as weather permits, has been approved pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998. As such, this language has been retained in this renewal approval. The source shall continue to record dates when readings are not taken due to poor weather conditions).

- (C) Broken or Failed Bag Detection:
- (i) 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).
 - (ii) 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.

- (3) EU 6.1 (asphalt coater and surge tank), EU 7.2 (cooling section), and ID #93 (fugitive emissions building ventilators) have applicable compliance monitoring conditions as specified below:

- (A) Daily visible emission notations of the respective EU 6.1, EU 7.2 stack exhausts and the ID# 93 ventilators= exhaust shall be performed during normal daylight operations. Pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998, a trained employee shall record *Ayes@* or *Ano@* whether emissions are observed. The *Ayes@* means visible emissions are observed and the *Ano@* means that visible emissions are not observed. 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. If visible emissions are observed (i.e. yes), 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.
- (B) The Permittee shall record the pressure drop across the fiber bed filter and the baghouse respectively used in conjunction with the asphalt coater (EU 6.1), at least once per day when EU 6.1 is in operation. During periods of inclement weather, these readings shall be performed as weather permits. When for any one reading, the pressure drop across the fiber bed filter or the baghouse is outside the respective normal ranges of 4 and 20 inches of water and 0.25 and 10 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.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instruments Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months. Those baghouses utilizing "Smartimers" (factor-calibrated instruments used for determining the pressure drop of dust collectors which do not require field calibration) shall be subject to approval by IDEM, OAQ, but shall not be subject to calibration at least once every six (6) months.

(Note: The provision that, during periods of inclement weather, the readings only be taken as weather permits, has been approved pursuant to Administrative Amendment 047-9584-00005, issued May 22, 1998. As such, this language has been retained in this renewal approval. The source shall continue to record dates when readings are not taken due to poor weather conditions).

- (C) Broken or Failed Bag Detection:
- (i) 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).

- (ii) 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.

These monitoring conditions are necessary because the source must operate properly to ensure compliance with the PM-10 and VOC emissions limits such that the source is limited to less than Title V applicability levels, and the stated facilities and their control devices must operate properly to ensure compliance with 326 IAC 5 (Visible Emission Limitations), 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-8-4 (FESOP), and the New Source Performance Standards, 40 CFR Part 60, Subpart UU.

Recommendation

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

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

An application for the purposes of this review was received on February 12, 2007. Additional information was received on September 21, 2007.

Conclusion

The operation of this asphalt felt, coatings, and roofing products manufacturing source shall be subject to the conditions of the attached FESOP Renewal No. F047-24313-00005.

Appendix A: Emissions Summary

Company Name: Owens Corning Roofing & Asphalt, LLC
Address City IN Zip: 128 West 8th Street, Brookville, Indiana 47012
Permit No: F047-24313-00005
Reviewer: Adeel Yousuf / EVP
Date: 08/27/07

Uncontrolled Potential to Emit (tons/year)

Emissions Generating Activity

Pollutant	Process* Heaters	Process Heater	Asphalt Storage Tanks	Adhesive Storage Tanks	Mineral Storage ** with Control	Asphalt Filler Mixer	Asphalt Coater & Surge Tank	Cooling Section	Building Ventilators	Misc.*** Insignificant	Total
	(EU1.1 through EU1.4)	EU NOH	(EU2.1 & 3.1)	(EU 2.2 & 2.3, NMT)	(EU 4.1 thru 4.5, 4.7 through 4.11, 7.1 & NFH)	(EU5.1)	(EU6.1)	(EU7.2)	(ID #93)	Activities	
PM	0.99	0.05	8.30	1.12	1,731.05	4.62	16.12	61.32	8.08	5.15	1,836.8
PM10	0.60	0.05	8.30	1.12	1,731.05	4.62	16.12	61.32	8.08	5.15	1,836.4
SO2	20.90	0.00	3.73	7.46	0.00	3.73	1.60	0.00	0.00	0.01	37.43
NOx	6.01	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.87	11.23
VOC	0.23	0.04	37.72	5.07	0.68	21.02	20.67	7.95	20.54	2.23	116.15
CO	3.53	0.59	14.83	29.67	0.00	14.83	1.14	0.00	0.00	1.01	65.61
total HAPs	0.11	negl.	negl.	0.00	0.00	0.00	0.02	0.58	0.63	1.37	2.71
worst case Single HAP	0.104 (Hexane)	negl.	negl.	0.00	0.00	0.00	0.014 (POM)	0.125 (1,1,1 TCE)	0.487 (Manganese)	1.37	1.37

* Reflects the higher pollutant emissions from either natural gas or No. 2 distillate oil combustion at each of these four direct fired combustion units

** No controls are assumed for the "mineral storage w/control" potential emissions.

*** Includes emissions from granule & sand reclaim system (EU 6.2), natural gas and LPG combustion, fugitive pump seals & flanges, hot oil loss, and cold cleaning (2 units), as insignificant activities (taken from FESOP renewal No. F047-15014-00005)

Controlled/Limited Potential to Emit (tons/year)*

Emissions Generating Activity

Pollutant	Process* Heaters	Process Heater	Asphalt Storage Tanks	Adhesive Storage Tanks	Mineral Storage with Control	Asphalt Filler Mixer	Asphalt Coater & Surge Tank	Cooling Section	Building Ventilators	Misc.*** Insignificant	Total
	(EU1.1 through EU1.4, & NOH)	EU NOH	(EU2.1 & 3.1)	(EU 2.2 & 2.3, NMT)	(EU 4.1 thru 4.5, 4.7 through 4.11, 7.1 & NFH)	(EU5.1)	(EU6.1)	(EU7.2)	(ID #93)	Activities	
PM	0.99	0.05	1.26	0.05	17.31	0.97	1.61	61.32	8.08	5.15	96.78
PM10	0.60	0.05	1.26	0.05	17.31	0.97	1.61	61.32	8.08	5.15	96.39
SO2	20.90	0.00	0.51	0.06	0.00	0.51	1.60	0.00	0.00	0.01	23.58
NOx	6.01	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.87	11.23
VOC	0.23	0.04	4.45	0.18	0.68	3.42	20.67	7.95	20.54	2.23	60.40
CO	3.53	0.59	2.01	0.22	0.00	2.01	1.14	0.00	0.00	1.02	10.53
total HAPs	0.11	negl.	negl.	0.00	0.00	0.00	0.02	0.58	0.63	1.37	2.71
worst case Single HAP	0.104 (Hexane)	negl.	negl.	0.00	0.00	0.00	0.014 (POM)	0.125 (1,1,1 TCE)	0.487 (Manganese)	1.37	1.37

*Total emissions based on rated capacity at 8,760 hours/year, after federally enforceable controls and limitations (see Section D of this FESOP renewal for detailed limitations)

** Reflects the higher pollutant emissions from either full-year natural gas usage or limited No. 2 distillate oil usage at each of these four direct fired combustion units.

*** Includes emissions from granule & sand reclaim system (EU 6.2), natural gas and LPG combustion, fugitive pump seals & flanges, hot oil loss, and cold cleaning (2 units), as insignificant activities (taken from FESOP renewal No. F047-15014-00005).

**Appendix A: Emissions Calculations
Natural Gas and LPG Combustion
MM BTU/HR <100**

Company Name: Owens Corning Roofing & Asphalt, LLC
Address City IN Zip: 128 West 8th Street, Brookville, Indiana 47012
Permit No: F047-24313-00005
Reviewer: Adeel Yousuf / EVP
Date: 08/27/07

Fuel Combustion Potential Emissions - Natural Gas and LPG Combustion Only

Combustion Unit	Heat Input Capacity (MMBtu/hr)	Potential Fuel Throughput ¹ (MMcft/yr)	Emission Factor ² (lb/MMscf)						Potential Emission Rate (tpy)						
			PM ³	PM ₁₀ ³	SO ₂	NOx ⁴	VOC	CO ⁵	PM	PM ₁₀	SO ₂	NOx	VOC	CO	
Asphalt Preheater #1 (EU 1.1)	2.5	21.90	7.6	7.6	0.6	100.0	5.5	84.0	0.08	0.08	0.01	1.10	0.06	0.92	
Asphalt Preheater #2 (EU 1.2)	2.5	21.90	7.6	7.6	0.6	100.0	5.5	84.0	0.08	0.08	0.007	1.10	0.06	0.92	
Filler Heater (EU 1.3)	2.5	21.90	7.6	7.6	0.6	100.0	5.5	84.0	0.08	0.08	0.01	1.10	0.06	0.92	
Hot Oil Heater (EU 1.4)	2.1	18.40	7.6	7.6	0.6	100.0	5.5	84.0	0.07	0.07	0.01	0.92	0.05	0.77	
Hot Oil Heater (EU NOH)	1.6	14.02	7.6	7.6	0.6	50.0	5.5	84.0	0.05	0.05	0.004	0.35	0.04	0.59	
									0.37	0.37	0.03	4.56	0.27	4.12	
<i>Insignificant Units</i>															
Natural Gas Fired Furnace @ 0.58 MMBtu/hr	0.58	5.08	7.6	7.6	0.6	100.0	5.5	84.0	0.019	0.019	0.002	0.254	0.014	0.213	
16 Furnaces, each 0.075 MMBtu/hr	1.2	10.51	7.6	7.6	0.6	94.0	5.5	40.0	0.04	0.04	0.003	0.49	0.03	0.21	
Boiler @ 0.25 MMBtu/hr	0.25	2.19	7.6	7.6	0.6	94.0	5.5	40.0	0.008	0.008	0.001	0.103	0.006	0.044	
									0.068	0.068	0.005	0.851	0.049	0.467	
LPG/Propane Firing Item (b) of Section A.3 of Permit	6	(1,000 Gallons) 574.43	0.4	0.4	(0.10S) 0.01	14.0	TOC Value 0.5	1.9	0.11	0.11	0.003	4.02	0.14	0.55	

Notes

¹Potential Natural Gas Throughput for Combustion Unit (MMscf/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMscf/1,000 MMBtu. Potential LPG Throughput for Combustion Unit (Kgals/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 kgal/1,000 gallons x 1 gallon/0.0915 MMBtu. The maximum heat input capacity is assumed as the upper limit for the insignificant activities category.

²All natural gas emission factors are based on normal firing. Natural Gas Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3 (SUPPLEMENT D 7/98), SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. LPG Emission Factors are from AP 42, Table 1.5-1, SCC #1-03-010-02, expressed in lbs/1,000 gallons.

³Particulate emission factors are filterable and condensable PM10 combined.

⁴Emission Factors for NOx: Uncontrolled = 100 for heat input capacity ≥ 0.3 MMBtu/hr, Uncontrolled = 94 for heat input capacity < 0.3 MMBtu/hr, Low NOx Burner = 50

⁵Emission Factors for CO: Uncontrolled = 84 for heat input capacity ≥ 0.3 MMBtu/hr, Uncontrolled = 40 for heat input capacity < 0.3 MMBtu/hr

⁶Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

⁷Potential PM Emissions (lb/MMBtu) = Potential Emissions (tons/yr) x 2000 (lb/ton) / 8760 (hrs/yr) x Heat Input Capacity (MMBtu/hr)

	HAPs - Organics					Total
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.07E-04	6.50E-05	4.06E-03	1.04E-01	1.12E-04	1.08E-01

	HAPs - Metals					Total
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.55E-05	5.96E-05	7.58E-05	2.19E-05	6.92E-05	2.52E-04
						1.08E-01

The five highest organic and metal HAPs emission factors are provided above. The calculation methodology is the same as above for the criteria pollutants.

Appendix A: Emissions Calculations
No. 2 Fuel Oil Combustion
MM BTU/HR <100

Company Name: **Owens Corning Roofing & Asphalt, LLC**
 Address City IN Zip: **128 West 8th Street, Brookville, Indiana 47012**
 Permit No: **F047-24313-00005**
 Reviewer: **Adeel Yousuf / EVP**
 Date: **08/27/07**

Potential Emissions from No. 2 Fuel Oil Combustion

Combustion Unit	Heat Input Capacity (MMBtu/hr)	Potential Fuel Throughput ¹ (Gallons/yr)	Emission Factor ² (lb/1,000 gallons)						Potential Emission Rate ⁴ (tpy)					
			PM ²	PM ₁₀ ²	SO ₂ ^(142S)	NOx	VOC	CO	PM	PM ₁₀	SO ₂	NOx	VOC	CO
Asphalt Preheater #1 (EU 1.1)	2.5	156,429	3.3	2.0	70	20.0	0.34	5.0	0.26	0.16	5.44	1.56	0.03	0.39
Asphalt Preheater #2 (EU 1.2)	2.5	156,429	3.3	2.0	70	20.0	0.34	5.0	0.26	0.16	5.44	1.56	0.03	0.39
Filler Heater (EU 1.3)	2.5	156,429	3.3	2.0	70	20.0	0.34	5.0	0.26	0.16	5.44	1.56	0.03	0.39
Hot Oil Heater (EU 1.4)	2.1	131,400	3.3	2.0	70	20.0	0.34	5.0	0.22	0.13	4.57	1.31	0.02	0.33
Total Potential Throughput (gallons/yr)		600,686							0.99	0.60	20.90	6.01	0.10	1.50
Total Limited Throughput (gallons/yr)		216,240							0.36	0.22	7.52	2.16	0.04	0.54

Notes

¹Potential Fuel Oil Throughput (kgal/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 kgal/1,000 gallons x 1 gal/0.14 MMBtu

²Emission factors are from AP 42, Chapter 1.3, Tables 1.3-2 and 1.3-4 (SUPPLEMENT D 9/98), SCC #1-03-005-01/02/03. Particulate emission factors are filterable and condensable.

³According to Condition D.1.1 of the permit, the combined no. 2 fuel oil usage from EU 1.1, EU 1.2, EU 1.3, and EU 1.4 is limited to 216,240 gallons per twelve (12) consecutive month period.

⁴Emission (tons/yr) = Throughput (gallons/yr) x Emission Factor (lb/1,000 gallons)/2,000 lb/ton

⁵Potential PM Emissions (lb/MMBtu) = Potential Emissions (tons/yr) x 2000 (lb/ton) / 8760 (hrs/yr) x Heat Input Capacity (MMBtu/hr)

Company Name: Owens Corning Roofing & Asphalt, LLC
Address City IN Zip: 128 West 8th Street, Brookville, Indiana 47012
Permit No: F047-24313-00005
Reviewer: Adeel Yousuf / EVP
Date: 08/27/07

Storage Tanks Emission Calculations

TANK NUMBER	Maximum EU2.1,EU3.1** Asphalt	Limited EU2.1,EU3.1*** Asphalt	Maximum EU2.2 Adhesive	Limited EU2.2 Adhesive
PRODUCT STORED				
TANK COLOR	Silver	Silver	Silver	Silver
TANK HEIGHT, H _S (ft)	29.33	29.33	16.8	16.8
TANK DIAMETER, D (ft)	15	15	10	10
TANK VOLUME, V (kBBL)	0.92	0.92	0.23	0.23
ROOF TYPE (CONE/DOME)	CONE	CONE	CONE	CONE
CONE ROOF PARAMETERS				
Tank Roof Slope (default 0.0625), S _R (ft/ft)	0.0625	0.0625	0.0625	0.0625
DOME ROOF PARAMETERS				
Dome Radius (Default-tank diameter, D) (ft)	NA	NA	NA	NA
AVERAGE AMBIENT TEMP., T _{AA} (°F)	52.1	52.1	52.1	52.1
STORAGE TEMP., T _S (°F)	53.44	53.44	53.44	53.44
LOCAL ATMOS PRESS., P _A (psia)	14.7	14.7	14.7	14.7
VAPOR MOLEC. WEIGHT, (M _V) (lb/lb-mol)	84	84	84	84
THROUGHPUT, Q (Bbl/yr)	2,502,857	678,629	2,502,857	30,849
% OF YEAR USED	100	100	100	100
PAINT SOLAR ABSORPTANCE, a (dimensionless) Table 7.1-6	0.39	0.39	0.39	0.39
SOLAR INSULATION, I (Btu/ft ² *day) Table 7.1-7	1,165	1,165	1,165	1,165
IS TANK WELDED (Y/N)	Y	Y	Y	Y
Breather Vent Press. (default = 0.03), P _{BP} (psig)	0.03	0.03	0.03	0.03
Breather Vent Vacuum (default = -0.03), P _{BV} (psig)	-0.03	-0.03	-0.03	-0.03
ADDITIONAL DATA				
DIURNAL TEMP. SWING (°F)	19.8	19.8	19.8	19.8
LIQUID HEIGHT, H _L (ft)	9.4	9.4	5.4	5.4
MAXIMUM LIQUID HEIGHT, H _{LX} (ft)	9.4	9.4	5.4	5.4
ROOF OUTAGE, H _{RO} (ft)	0.16	0.16	0.10	0.10
VAPOR SPACE OUTAGE, H _{VO} (ft)	20.09	20.09	11.50	11.50
AVERAGE LIQUID SURFACE TEMP., T _{LA} (°R)	516.1	516.1	516.1	516.1
VAPOR TEMPERATURE RANGE, DT _V (°R)	26.98	26.98	26.98	26.98
MAX LIQUID SURFACE TEMP., T _{LX} (°R)	522.85	522.85	522.85	522.85
MIN LIQUID SURFACE TEMP., T _{LN} (°R)	509.36	509.36	509.36	509.36
STOCK TURNOVER RATE, N (turnovers/yr)	8458.789008	2293.530763	33130.25695	408.3474592
TVP AT MAX LIQ. SURF. TEMP., P _{VX} (psia)	1.21	1.21	0.17	0.17
TVP AT AVG LIQ. SURF. TEMP., P _{VA} (psia)	1.03	1.03	0.14	0.14
TVP AT MIN LIQ. SURF. TEMP., P _{VN} (psia)	0.87	0.87	0.11	0.11
TIME PERIOD EVALUATED - - - - -	ANNUAL	ANNUAL	ANNUAL	ANNUAL
STANDING STORAGE LOSSES				
Tank Vapor Space Volume, V _V (ft ³)	3549.53	3549.53	903.54	903.54
Stock Vapor Density, W _V (lb/ft ³)	0.018	0.018	0.003	0.003
Vapor Expansion Factor, K _E (dimensionless)	0.077	0.077	0.056	0.056
Vapor Saturation Factor, K _S (dimensionless)	0.477	0.477	0.921	0.921
TOTAL STANDING LOSSES, L _S (lb/yr)	858.24	858.24	51.41	51.41
WORKING LOSS				
Working Loss Turnover Factor, K _N (dimensionless)	0.170	0.180	0.168	0.240
Working Loss Product Factor, K _P (dimensionless)	1	1	1	1
TOTAL WORKING LOSSES, L _W (lb/yr)	36859.21	10553.84	4932.25	87.12
TOTAL HC EMISSIONS, L _T (lb/yr) @100%HC	37717.45	11412.08	4983.66	138.53
TOTAL HC EMISSIONS, (tpy) @22% HC as PM/PM10	18.86	5.71	2.49	0.07
PM EMISSIONS TOTAL, (tpy)	4.149	1.255	0.548	0.015

* This spreadsheet is based on the "Evaporative Losses from Fixed-Roof Tanks", API Publ. 2518, 2nd Edition, October 1991, as found in AP-42, Section 7.1, "Organic Liquid Storage Tanks", dated 9/97. There have been no changes to these emission factors for fixed-roof tanks since the FESOP renewal issuance on 11/12/02, and, except for minor emission differences due to available meteorological data parameters contained in its database for Indianapolis, IN.

** Emissions are for each of EU2.1 and EU3.1.

*** Emissions are total for EU2.1 and EU3.1, combined.

**** PM fraction estimate from study report "Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading", by David C. Trumbore, Environmental Progress (Vol. 18, No. 4), Winter 1999.

Company Name: Owens Corning Roofing & Asphalt, LLC
Address City IN Zip: 128 West 8th Street, Brookville, Indiana 47012
Permit No: F047-24313-00005
Reviewer: Adeel Yousuf / EVP
Date: 08/27/07

Storage Tanks Emission Calculations

TANK NUMBER PRODUCT STORED	Maximum	Limited	Maximum	Limited
	EU2.3	EU2.3	EU5.1	EU5.1
	Adhesive	Adhesive	Asphalt	Asphalt
TANK COLOR	Silver	Silver	Silver	Silver
TANK HEIGHT, H _s (ft)	36.5	36.5	29.33	29.33
TANK DIAMETER, D (ft)	12.5	12.5	15	15
TANK VOLUME, V (KBBL)	0.80	0.80	0.92	0.92
ROOF TYPE (CONE/DOME)	CONE	CONE	CONE	CONE
CONE ROOF PARAMETERS				
Tank Roof Slope (default 0.0625), S _R (ft/ft)	0.0625	0.0625	0.0625	0.0625
DOME ROOF PARAMETERS				
Dome Radius (Default-tank diameter, D) (ft)	NA	NA	NA	NA
AVERAGE AMBIENT TEMP., T _{AA} (°F)	52.1	52.1	52.1	52.1
STORAGE TEMP., T _B (°F)	53.44	53.44	53.44	53.44
LOCAL ATMOS PRESS., P _A (psia)	14.7	14.7	14.7	14.7
VAPOR MOLEC. WEIGHT, (M _v) (lb/lb-mol)	84	84	84	84
THROUGHPUT, Q (Bbl/yr)	2,502,857	30,849	3,754,286	678,629
% OF YEAR USED	100	100	100	100
PAINT SOLAR ABSORPTANCE, a (dimensionless) Table 7.1-6	0.39	0.39	0.39	0.39
SOLAR INSULATION, I (Btu/ft ² *day) Table 7.1-7	1,165	1,165	1,165	1,165
IS TANK WELDED (Y/N)	Y	Y	Y	Y
Breather Vent Press. (default = 0.03), P _{BP} (psig)	0.03	0.03	0.03	0.03
Breather Vent Vacuum (default = -0.03), P _{BV} (psig)	-0.03	-0.03	-0.03	-0.03
ADDITIONAL DATA				
DIURNAL TEMP. SWING (°F)	19.8	19.8	19.8	19.8
LIQUID HEIGHT, H _L (ft)	11.7	11.7	9.4	9.4
MAXIMUM LIQUID HEIGHT, H _{LX} (ft)	11.7	11.7	9.4	9.4
ROOF OUTAGE, H _{RO} (ft)	0.13	0.13	0.16	0.16
VAPOR SPACE OUTAGE, H _{VO} (ft)	24.93	24.93	20.09	20.09
AVERAGE LIQUID SURFACE TEMP., T _{LA} (°R)	516.1	516.1	516.1	516.1
VAPOR TEMPERATURE RANGE, DT _V (°R)	26.98	26.98	26.98	26.98
MAX LIQUID SURFACE TEMP., T _{LX} (°R)	0.00	522.85	522.85	522.85
MIN LIQUID SURFACE TEMP., T _{LN} (°R)	0.00	0.00	0.00	0.00
STOCK TURNOVER RATE, N (turnovers/yr)	9786.168206	120.6195572	12688.1852	2293.530763
TVP AT MAX LIQ. SURF. TEMP., P _{VX} (psia)	0.17	0.17	1.21	1.21
TVP AT AVG LIQ. SURF. TEMP., P _{VA} (psia)	0.14	0.14	1.03	1.03
TVP AT MIN LIQ. SURF. TEMP., P _{VN} (psia)	0.11	0.11	0.87	0.87
TIME PERIOD EVALUATED -----	ANNUAL	ANNUAL	ANNUAL	ANNUAL
STANDING STORAGE LOSSES				
Tank Vapor Space Volume, V _v (ft ³)	3059.40	3059.40	3549.53	3549.53
Stock Vapor Density, W _v (lb/ft ³)	0.003	0.003	0.018	0.018
Vapor Expansion Factor, K _E (dimensionless)	0.056	0.056	0.077	0.077
Vapor Saturation Factor, K _S (dimensionless)	0.844	0.844	0.477	0.477
TOTAL STANDING LOSSES, L _S (lb/yr)	159.44	159.44	858.24	858.24
WORKING LOSS				
Working Loss Turnover Factor, K _N (dimensionless)	0.170	0.415	0.169	0.180
Working Loss Product Factor, K _P (dimensionless)	1	1	0.75	0.75
TOTAL WORKING LOSSES, L _W (lb/yr)	4995.83	150.69	41178.61	7915.38
TOTAL HC EMISSIONS, L _T (lb/yr)	5155.27	310.14	42036.85	8773.62
@100%HC				
TOTAL HC EMISSIONS, (tpy)	2.58	0.16	21.02	4.39
@22% HC as PM/PM10				
PM EMISSIONS TOTAL, (tpy)	0.567	0.034	4.624	0.965

* This spreadsheet is based on the "Evaporative Losses from Fixed-Roof Tanks", API Publ. 2518, 2nd Edition, October 1991, as found in AP-42, Section 7.1, "Organic Liquid Storage Tanks", dated 9/97. There have been no changes to these emission factors for fixed-roof tanks since the FESOP renewal issuance on 11/12/02, and, except for minor emission differences due to available meteorological data parameters contained in its database for Indianapolis, IN.

** Emissions are for each of EU2.1 and EU3.1.

*** Emissions are total for EU2.1 and EU3.1, combined.

**** PM fraction estimate from study report "Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading", by David C. Trumbore, Environmental Progress (Vol. 18, No. 4), Winter 1999.

**Appendix A: Emissions Calculations
Storage Tank Emissions**

Company Name: Owens Corning Roofing & Asphalt, LLC
Address City IN Zip: 128 West 8th Street, Brookville, Indiana 47012
Permit No: F047-24313-00005
Reviewer: Adeel Yousuf / EVP
Date: 08/27/07

Potential Emissions - Asphalt and Adhesive Storage Tanks

Limited/Controlled VOC and PM Emissions

Emission Unit	Total HC ¹ (tpy)	VOC ² (tpy)	PM ² (tpy)
Asphalt Tank #1 (EU 2.1) and Asphalt Tank #2 (EU 3.1)	5.71	4.45	1.26
Adhesive Tank #7 (EU 2.2)	0.07	0.05	0.015
Adhesive Tank #7A (EU 2.3)	0.16	0.12	0.035
Adhesive Filler Mixing Tank (EU NMT)	9.27E-09	7.23E-09	2.04E-10
Asphalt Filler Mixer (EU 5.1)	4.39	3.42	0.966
Total (tpy)	10.33	8.06	2.27

Notes

¹ The total hydrocarbon emissions are derived from the storage tank emission calculations, based on AP-42, Section 7.1, *Organic Liquid Storage Tanks*.

² The PM and VOC fractions (0.22 and 0.78, respectively) are derived from the study, *Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading*, by David C. Trumbore, Environmental Progress (Vol. 18, No. 4), Winter 1999.

Maximum Potential and Limited Potential CO, SO₂ and H₂S Emissions

Emission Unit	CO Emission Factor ¹ (ppm)	H ₂ S Emission Factor ¹ (ppm)	Maximum Throughput (gallons/yr) ²	Annual Throughput (gallons/yr) ²	Maximum Potential CO Emissions (tpy)	Limited CO Emissions (tpy) ³	Maximum Potential H ₂ S Emissions (tpy)	Limited H ₂ S Emissions (tpy) ³	Maximum Potential SO ₂ Emissions (tpy)	Limited SO ₂ Emissions (tpy) ³
Asphalt Tank #1 (EU 2.1) and Asphalt Tank #2 (EU 3.1)	15,000	1,643.5	210,240,000.0	28,502,400.0	14.83	2.01	1.98	0.27	3.73	0.51
Adhesive Tank #7 (EU 2.2)	15,000	1,643.5	210,240,000.0	1,295,640.0	14.83	0.09	1.98	0.01	3.73	0.02
Adhesive Tank #7A (EU 2.3)	15,000	1,643.5	210,240,000.0	1,295,640.0	14.83	0.09	1.98	0.01	3.73	0.02
Adhesive Filler Mixing Tank (EU NMT)	15,000	1,643.5	743,773.6	564,508.5	0.05	0.04	0.01	0.01	0.01	0.01
Asphalt Filler Mixer (EU 5.1)	15,000	1,643.5	210,240,000.0	28,502,400.0	14.83	2.01	1.98	0.27	3.73	0.51
Total (tpy)					59.39	4.24	7.93	0.57	14.93	1.07

Notes

¹ Based on the study, CO Emission Factor (ppm) = 142 x %LEL + 800, H₂S Emission Factor (ppm) = 12.43 x %LEL + 400.5. As a worst-case estimate, the %LEL is assumed to be 100%.

² Annual adhesive throughput (gallons/yr) for asphalt tanks, adhesive tanks, and asphalt filler mixer are based on the allowable operating limits in the permit. Annual adhesive throughput (gallons/yr) for adhesive filler mix tank = Worst-case asphalt adhesive hourly usage rate (lb/hr) x 8760 hr/yr x 7.48 gal/ft³ / Modified shingle adhesive density (78.35 lb/ft³)

³ Annual CO Emissions Rate (tpy) = Worst-case emission factor (ppm) x conversion factor (1.15 mg/m³/ppm) x 0.028 m³/scf x 1 cf/7.48 gallon x 1 lb/453,600 mg x Maximum annual throughput (gallons/yr) / 2000 lb/ton
Annual H₂S Emissions Rate (tpy) = Worst-case emission factor (ppm) x conversion factor (1.39 mg/m³/ppm) x 0.028 m³/scf x 1 cf/7.48 gallon x 1 lb/453,600 mg x Maximum annual throughput (gallons/yr) / 2000 lb/ton
Annual SO₂ Emissions Rate (tpy) = Annual H₂S Emissions Rate (tpy) x Molecular weight of SO₂ (64 lb/lbmol) / Molecular weight of H₂S (32 lb/lbmol)

**Appendix A: Emissions Calculations
PM Emissions from Processes
MM BTU/HR <100**

Company Name: Owens Corning Roofing & Asphalt, LLC
Address City IN Zip: 128 West 8th Street, Brookville, Indiana 47012
Permit No: F047-24313-00005
Reviewer: Adeel Yousuf / EVP
Date: 08/27/07

Particulate Control Equipment - Potential PM Emissions

Emission Unit Description	Outlet Grain Loading (gr/acf) ¹	Control Device Fan Flow Rate (acfm) ²	PM Control Efficiency (%)	Uncontrolled PM/PM ₁₀ Emission Rate (tpy) ³	Controlled Potential PM/PM ₁₀ Emission Rate (tpy) ⁴	Controlled Potential PM/PM ₁₀ Emission Rate (lb/hr)
Filler Silo #1 (EU 4.1)	0.02	1,070	99	80.34	0.80	0.18
Filler Silo #2 (EU 4.2)	0.02	535	99	40.17	0.40	0.09
Filler Silo #4 (EU 4.3)	0.02	1,070	99	80.34	0.80	0.18
Filler Silo #3 (EU 4.4)	0.02	535	99	40.17	0.40	0.09
Filler Upper Surge Hopper (EU 4.7)	0.02	900	99	67.58	0.68	0.15
Filler Lower Surge Hopper (EU 4.8)	0.02	450	99	33.79	0.34	0.08
Surfacing Material Silos #1-#6 (EU 4.9) and Surfacing Material Silo #7 (EU 4.10)	0.02	10,400	99	780.89	7.81	1.78
Parting Agent Use Bin #1 (EU 4.5), Surfacing Material Receiving Bin (EU 4.11), and Surfacing Material Applicator (EU 7.1)	0.02	7,850	99	589.42	5.89	1.35
Filler Receiving Hopper Bin Vent Filter (EU NFH)	0.02	244	99	18.34	0.18	0.04

Notes

¹ The outlet grain loading for the filler receiving hopper bin vent filter is based on manufacturer guaranteed technical specifications.

² The control device fan flow rate used for the purposes of potential emission calculations is the maximum air flow for the control equipment. This value is based on the manufacturer guaranteed technical specifications.

³ Uncontrolled PM/PM₁₀ Emission Rate (tons/yr) = Controlled PM/PM₁₀ Emission Rate (tons/yr) / (1 - Bin Vent Filter Control Efficiency (99%))

⁴ Controlled Potential PM/PM₁₀ Emission Rate (tons/yr) = Outlet Loading (grains/acf) * Fan Flow Rate (acfm) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs

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**Filler Modified Laminate Adhesive (MLA) Mix Tank - Potential PM₁₀ and VOC Emission Calculations
 EU NMT**

PM₁₀ and VOC emissions from asphalt storage tanks with passive air draw are calculated using AP-42 Section 7.1.3. VOC emissions from volatile organic liquid tanks are also estimated using AP-42 Section 7.1.3. Total losses from the tank are equal to the sum of the standing losses and the working losses.

The standing storage losses represent evaporative losses from the stored material and are calculated based on the vapor space volume, vapor density, vapor space expansion factor, and the vented vapor saturation factor.

The working losses represent evaporative losses from filling and emptying operations and are calculated based on the vapor molecular weight, vapor pressure, annual throughput, turnover factor, and working loss product factor.

The calculated total losses for the asphalt storage tanks represent total hydrocarbon emissions and must be apportioned into PM₁₀ and VOC emissions. Asphalt fumes have a 22%/78% split between PM₁₀ and VOC.

For particulate control, a control efficiency is applied to the PM₁₀ portion of emissions to determine the controlled PTE.

Tank Description:	Mixing Tank
Product:	Modified Laminated Asphalt
Max pump in rate gpm	
Average Storage Temperature (°F)	53.44
Average Level (%)	67
Vapor Pressure -- alpha	7.88
Vapor Pressure -- beta	-19.05
Throughput (tons/yr)	2957
Tank Capacity (kgal)	0.18
Height (ft)	4
Diameter (ft)	3
Vented to Vapor Recovery System:	NONE
Tla, Average Surface Temp., F:	53.44
Mv, Vapor Molecular Wgt, lb/lb-mole:	84
Pva, Vapor Pressure, psia:	0.000
Hvo, Vapor Space Outage, ft.:	1.32
Vv, Vapor Space Volume, ft3:	9
Wv, Vapor Density, lb/ft3:	0.0000
delta Ta, Amb. Temp. Range:	20.2
alpha, Paint Factor:	0.6
I, Solar Insulation Factor:	1,345
Vapor Pressure at Tla - delta Ta:	0.000
delta Pv, Vapor Pressure Range, psia:	0.0000
delta Tv, Daily Vapor Temp. Range, R:	20
delta Pv, Breather Vent Pressure Range, psi	0
Ke, Vapor Space Expan. Factor:	0.0390
Ks, Vented Vapor Saturation Factor:	1.0000
Tank Volume, gallons:	180
Annual Throughput, gal/yr:	743,774
Q, Annual Net Thruput, bbl/yr:	17,709
Turnovers/yr:	4132
(180+N)/2N check 2N & fix in others	0.17
Kn, Turnover Factor:	0.17
Kp, Working Loss Production Factor	1
Standing Storage Losses, lb/yr, see Eq 1-2: (Ls = 365*Vv*Wv*Ke*Ks)	0.00
Working Losses, lb/yr, see Eq 1-23: (Lw = 0.0010*Mv*Pva*Q*Kn*Kp)	0.00
Total Uncontrolled, lb/yr:	0.00
Total Uncontrolled, ton/yr	9.27E-09
Particulate Fraction	0.22
VOC Fraction	0.78
Uncontrolled Particulate, tons/yr:	2.040E-09
Uncontrolled VOC, tons/yr:	7.234E-09
Control Device	Dust Collector
PM ₁₀ control efficiency	90%
VOC Control Efficiency	0%
Controlled Particulate, tons/yr:	2.04E-10
Controlled VOC, tons/yr:	7.23E-09

Appendix A: Emissions Calculations

Company Name: Owens Corning Roofing & Asphalt, LLC
 Address City IN Zip: 128 West 8th Street, Brookville, Indiana 47012
 Permit No: F047-24313-00005
 Reviewer: Adeel Yousuf / EVP
 Date: 08/27/07

Coater/Surge Tank (EU 6.1) - Criteria Pollutants Potential Emissions

Asphalt Shingle Production Rate (tons/yr) = **454,206** Based on original FESOP No. F047-15014-00005, Condition D.5.2

Coater/Surge Tank - Uncontrolled Emission Factors			
Pollutant	Emission Factor ¹	Units	Reference
H ₂ S	2.42E-03	lb/ton production	Maximum of Stack Testing Emission Factors at Representative Facilities is Increased by 20%
PM ₁₀	7.10E-02	lb/ton production	Average of Stack Testing Emission Factors at Representative Facilities is Increased by 3 X the Standard Deviation of the Emission Factors
VOC	9.10E-02	lb/ton production	Average of Stack Testing Emission Factors at Representative Facilities is Increased by 3 X the Standard Deviation of the Emission Factors
CO	0.005	lb/ton production	OC Brookville Stack Testing, October 2000 (As stated in the existing permit)
SO _x	0.0025	lb/ton production	Stack Testing at a Representative Facility

PM Control Efficiency	
EU Description	Control
Asphalt Coater/Surge Tank Fiber Bed Filter	90%

¹The emission factors are based on stack testing at OC, Brookville and at representative facilities.

Coater/Surge Tank - Potential Emissions				
EU ID	EU Description	Pollutant	Potential Emissions (tpy)	
			Uncontrolled (tpy)	Controlled (tpy)
EU 6.1	Asphalt Coater/ Surge Tank	H ₂ S ¹	0.55	0.55
		PM ₁₀ ²	16.12	1.61
		VOC ³	20.67	20.67
		CO ⁴	1.14	1.14
		SO _x ¹	1.60	1.60

¹ Calculation: Potential Emissions (tpy) = Emission Factor (lb/ton production) * Maximum Annual Production Rate (tpy) / (2,000 lb/ton). SO₂ Potential Emissions (tpy) = Potential SO₂ Emissions (tpy) + Potential SO₂ Emissions from H₂S

² Calculation: Potential Emissions (tpy) = Emission Factor (lb/ton production) * Maximum Annual Production Rate (tpy) / (2,000 lb/ton) * [1- Control Efficiency (%)]. The control equipment is federally enforceable since it is included in the original FESOP.

³ Calculation: Potential Emissions (tpy) = VOC Emission Factor (lb/ton production) * Maximum Annual Production Rate (tpy) / (2,000 lb/ton).

⁴ Calculation: Potential Emissions (tpy) = Emission Factor (lb/ton production) * Maximum Annual Production Rate (tpy) / (2,000 lb/ton).

Appendix A: Emissions Calculations

Company Name: Owens Corning Roofing & Asphalt, LLC
 Address City IN Zip: 128 West 8th Street, Brookville, Indiana 47012
 Permit No: F047-24313-00005
 Reviewer: Adeel Yousuf / EVP
 Date: 08/27/07

Coater/Surge Tank - Hazardous Air Pollutants (HAPs) Potential Emissions

Based on FESOP Permit No. F047-15014-00005, Maximum Asphalt Shingle Production Rate (tpy) = 454200

Coater - Uncontrolled Metal Emission Factors (lb/ton)		
Pollutant	Emission Factor	Reference
Lead	2.10E-06	1.2 x Maximum of (Atlanta, Portland Stack Test Emission Factors)
Antimony	3.00E-07	1.2 x (Portland Stack Test Emission Factor)
Arsenic	4.00E-07	1.2 x Maximum of (Atlanta, Portland Stack Test Emission Factors)
Beryllium	2.00E-07	1.2 x (Portland Stack Test Emission Factor)
Cadmium	2.00E-07	1.2 x (Portland Stack Test Emission Factor)
Chromium	2.30E-06	1.2 x Maximum of (Atlanta, Portland Stack Test Emission Factors)
Cobalt	2.20E-06	1.2 x (Atlanta Stack Test Emission Factor)
Manganese	2.20E-06	1.2 x Maximum of (Atlanta, Portland Stack Test Emission Factors)
Nickel	3.30E-06	1.2 x (Portland Stack Test Emission Factor)
Selenium	4.00E-07	1.2 x Maximum of (Atlanta, Portland Stack Test Emission Factors)
Polycyclic Organic Matter	6.45E-05	1.2 x Maximum of (Atlanta, Jacksonville Stack Test Emission Factors)

Coater - Potential HAP Emissions ¹			
EU ID	EU Description	Pollutant	Annual Uncontrolled Emission Rate
			(tpy)
EU 6.1	Asphalt Coater/Coating Surge Tank	Lead	4.77E-04
		Antimony	6.81E-05
		Arsenic	9.08E-05
		Beryllium	4.54E-05
		Cadmium	4.54E-05
		Chromium	5.22E-04
		Cobalt	5.00E-04
		Manganese	5.00E-04
		Nickel	7.49E-04
		Selenium	9.08E-05
		Polycyclic Organic Matter	1.46E-02
Total HAP Emissions (tpy)			1.77E-02

¹ Calculation: Potential Emissions (tpy) = Emission Factor (lb/ton) * Maximum Annual Production Rate (tpy) / (2,000 lb/ton)

Appendix A: Emissions Calculations

Company Name: Owens Corning Roofing & Asphalt, LLC
Address City IN Zip: 128 West 8th Street, Brookville, Indiana 47012
Permit No: F047-24313-00005
Reviewer: Adeel Yousuf / EVP
Date: 08/27/07

Potential Emissions - Surfacing Material Applicator and Cooling Section

EU 7.1 - Surfacing Material Applicator

Emission Unit	PM/PM ₁₀ Emissions ¹ (tpy)	VOC Emission Factor ² (lb/ton product)	Annual Production ³ (tpy)	VOC Emissions ⁴ (tpy)
Surfacing Material Applicator (EU 7.1)	5.89	0.003	454,200	0.68

Notes

- ¹ The potential PM/PM₁₀ emissions are based on the maximum outlet grain loading capacity and control device fan flow rate. These calculations are presented on Page 4 of TSD, Appendix A.
- ² According to FESOP F047-15014-00005, issued on November 12, 2002, the VOC emission factor for EU 7.1 is based on testing performed by Owens Corning at various locations using standard test methods and
- ³ According to the limited annual production in the original FESOP No. F047-15014-00005.
- ⁴ VOC emissions = Emission factor (lb/ton) x Production limit (tpy)/2,000 lb/ton

EU 7.2 - Cooling Section

Emission Unit	PM/PM ₁₀ Emission Factor ¹ (lb/ton product)	VOC Emission Factor ¹ (lb/ton product)	Annual Production ² (tpy)	PM/PM ₁₀ Emissions ³ (tpy)	VOC Emissions ³ (tpy)	HAPs Emissions ⁴ (tpy)
Cooling Section (EU 7.2)	0.27	0.035	454,200	61.32	7.95	0.58

Notes

- ¹ According to FESOP F047-15014-00005, issued on November 12, 2002, the VOC and PM emission factors for EU 7.2 are based on testing performed by Owens Corning at various locations using standard test methods and correlated with the quantity of product produced.
- ² According to FESOP F047-15014-00005, the annual allowable production limit is 454,200 tons per consecutive 12 month period.
- ³ VOC/PM emissions = VOC/PM Emission factor (lb/ton) x Production limit (tpy)/2,000 lb/ton
- ⁴ HAP emissions are taken from FESOP F074-15014-00005

Appendix A: Emissions Calculations

Company Name: Owens Corning Roofing & Asphalt, LLC
Address City IN Zip: 128 West 8th Street, Brookville, Indiana 47012
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Date: 08/27/07

Building Ventilators (ID# 93) Emission Calculations

The VOC and PM/PM10 emission factors from ventilators (i.e. building roof monitor ventilation extending the length of the production building) were initially developed based on testing performed at Owens Corning facility using standard test methods and were correlated with the quantity of product produced. Pursuant to the testing requirement in the original FESOP (F047-5160-00005), issued on October 22, 1997, compliance testing was successfully performed during October 2000 using opacity as a surrogate test for PM/PM10. Therefore, using the original FESOP emission factors, and subtracting the emissions from the asphalt filler mixer (EU 5.1) which are captured by these factors, to avoid double-counting, the emissions are calculated as follows:

Emission Factors (EF):

PM/PM10 = 0.019 pounds per ton of product

VOC = 0.1055 pounds per ton of product

Emissions = EF x tons of product per year / 2000 pounds per ton

Total Ventilator emissions including EU 5.1

PM/PM10 emissions = 0.019 lb/ton x 454,200 tons per year / 2000 pounds per ton
 4.31 tons per year

VOC emissions = 0.1055 lb/ton x 454,200 tons per year / 2000 pounds per ton
 23.96 tons per year

Ventilator Emissions = Total emissions x safety factor - EU 5.1 emissions

**PM/PM10 emissions = (4.31 tons per year x 2.1) - 0.97 tons per year
 8.08 tons per year**

**VOC emissions = (23.96 tons per year x 1) - 3.42 tons per year
 20.54 tons per year**