



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
*We make Indiana a cleaner, healthier place to live.*

Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

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July 15, 2005

Mr. Kirk Braun  
API Construction Corporation  
P.O. Box 191  
LaOtto, IN 46763

Re: 033-21085-00055  
First Significant Permit Modification to  
Part 70 Permit No.: T033-6270-00055

Dear Mr. Braun

API Construction Corporation was issued a Part 70 Operating Permit T033-6270-00055 on August 31, 1999 for a stationary asphalt plant located at 1633 CR 72, Hometown, IN 46748. A letter requesting changes to the permit was received by the Office of Air Quality (OAQ) on April 5, 2005. The source requested to add the use of re-refined waste oil as an alternate fuel for the aggregate dryer. The source also notified IDEM that one (1) re-refined waste oil storage tank, with a capacity of 10,000 gallons, is being added to the source as an insignificant activity that is not specifically regulated. No revision of the permit is necessary to accommodate the addition of the re-refined waste oil storage tank.

Upon further review of the permit, OAQ determined that the permit required revising for the following reasons:

- (a) Establishment of a Prevention of Significant Deterioration (PSD) limit for the aggregate dryer, cold feed bins, scalping screens, weigh conveyors, and mixing drum was necessary to limit the source-wide particulate matter (PM and PM<sub>10</sub>) emissions to less than 250 tons per year and to make the requirements of 326 IAC 2-2 not applicable.
- (b) to correct typographical errors, to clarify several conditions in Section D.1, and to add language to Section B that addressed credible evidence.

Pursuant to 326 IAC 2-7-12(d)(1), these changes are being made through a Significant Permit Modification to the Part 70 Permit. Pursuant to the provisions of 326 IAC 2-7-12 a Significant Permit Modification to this permit is hereby approved as described in the attached Technical Support Document.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit. This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Nathan Bell, 100 North Senate Avenue, Indianapolis, Indiana, 46204, at 317-234-3350 or at 1-800-451-6027 (ext 43350).

Sincerely,

Original signed by

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

ncb

Attachments: Technical Support Document and revised permit pages

cc: File - DeKalb County  
U.S. EPA, Region V  
DeKalb County Health Department  
IDEM Northern Regional Office  
Air Compliance Section Inspectors - Doyle Houser  
Compliance Data Section  
Administrative and Development



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## PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

### API Construction 1633 CR 72 Huntertown, IN 46748

(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.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T033-6270-00055	
Issued by: Original Signed By Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: August 31, 1999  Expiration Date: August 31, 2004

First Reopening No.: 033-13179-00055, issued December 7, 2001

First Significant Permit Modification No.: 033-21085-00055	Pages Affected: 2, 3, 4, 16, 27-30, 37
Issued by: Original signed by Paul Dubenetzky, Chief Permit Branch Office of Air Quality	Issuance Date: July 15, 2005

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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 Management (OAM). 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 2-7-4(c)] [326 IAC 2-7-5(15)]

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The Permittee owns and operates a stationary asphalt plant.

Responsible Official: Kirk Braun  
Source Address: 1633 CR 72, Huntertown, IN 46748  
Mailing Address: P.O. Box 191, LaOtto, IN 46763  
SIC Code: 2951  
County Location: DeKalb  
County Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program  
Minor Source, under PSD Rules;  
Minor Source, Section 112 of the Clean Air Act  
Not 1 of 28 Source Categories

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

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

- (1) One (1) continuous hot-mix asphalt plant, with a capacity of 250 tons of asphalt per hour, consisting of the following:
  - (a) one (1) natural gas aggregate dryer, with a capacity of 75 million British thermal units per hour (MM Btu/hr), with the capability to fire No. 2 distillate oil or re-refined waste oil as backup fuel, using a baghouse as control, and exhausting at stack S1, and
  - (b) cold feed bins, scalping screens, weigh conveyors, and a mixing drum, all using a baghouse as control, and exhausting at stack S1.

### A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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

- (1) Other categories with emissions below insignificant thresholds:
  - (a) one (1) liquid asphalt storage tank, with a capacity of 25,000 gallons, vented at stack S5,
  - (b) one (1) liquid asphalt storage tank, with a capacity of 12,000 gallons, vented at stack S4,
  - (c) one (1) No. 2 distillate oil storage tank, with a capacity of 12,000 gallons, vented at stack S3,

### A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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

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

B.26 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM 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 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

B.27 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]

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

## SECTION D.1

## FACILITY OPERATION CONDITIONS

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

One (1) continuous hot-mix asphalt plant, with a capacity of 250 tons of asphalt per hour, consisting of the following:

- (a) one (1) natural gas aggregate dryer, with a capacity of 75 million British thermal units per hour (MM Btu/hr), with the capability to fire No. 2 distillate oil or re-refined waste oil as backup fuel, using a baghouse as control, and exhausting at stack S1, and
- (b) cold feed bins, scalping screens, weigh conveyors, and a mixing drum, all using a baghouse as control, and exhausting at stack S1.

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

#### D.1.1 New Source Performance Standard [326 IAC 12] [40 CFR 60.90, Subpart A, Subpart I]

Pursuant to 326 IAC 12, (40 CFR 60.90, Subpart I), on or after the date of the performance tests are completed, no owner or operator subject to the provisions of Subpart I shall discharge into the atmosphere from any affected facility any gases which:

- (a) contain particulate matter in excess of 0.04 gr/dscf,
- (b) exhibit twenty percent (20%) opacity, or greater.

The provisions of 40 CFR Part 60, Subpart A, General Provisions, apply to the asphalt plant except when otherwise specified in 40 CFR Part 60, Subpart I.

#### D.1.2 Sulfur Dioxide (SO<sub>2</sub>) Emission Limitations [326 IAC 7-1.1-2] [326 IAC 7-2-1] [326 IAC 2-2]

Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), sulfur dioxide (SO<sub>2</sub>) emissions from the aggregate dryer shall not exceed 0.5 pounds per million BTU heat input while burning distillate oil and 1.6 pounds per million BTU heat input while burning re-refined waste oil. This limit does not apply to the combustion of natural gas. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

The source has requested a voluntary sulfur content limit for the re-refined waste oil of five tenths percent (0.5%), which is equivalent to a sulfur dioxide (SO<sub>2</sub>) emission limit of 0.525 pounds per million BTU heat input while burning re-refined waste oil. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and not applicable.

#### D.1.3 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

- (a) Pursuant to CP-033-4711-00055, issued on December 14, 1995, the production of cold-mix/cutback asphalt with the maximum VOC percentage of seventy-six and ninety-two one hundredths (76.92%) shall be limited to 18,000 tons of VOC per twelve month period, rolled on a monthly basis. This usage limit is required to limit the potential to emit of VOC to less than 234 tons per 12 month period, rolled on a monthly basis. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.
- (b) PM and PM<sub>10</sub> emissions from the aggregate dryer, cold feed bins, scalping screens, weigh conveyors, and mixing drum, shall not exceed 0.182 pounds per ton of asphalt produced, based on a maximum capacity of 250 tons of asphalt per hour. This limit is required to limit the potential to emit of particulate matter (PM) to less than 250 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

**D.1.4 Miscellaneous Operations: Asphalt Paving [326 IAC 8-5-2]**

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- (a) Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except:
- (1) penetrating prime coating,
  - (2) stockpile storage, and
  - (3) application during the months of November, December, January, February, and March.

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

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

**Compliance Determination Requirements**

**D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)]**

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During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM, PM-10, and opacity testing utilizing methods as approved by the Commissioner in order to demonstrate compliance with Conditions D.1.1 and D.1.3(b). This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C - Performance Testing. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

**D.1.7 Sulfur Dioxide Emissions and Sulfur Content**

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Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed 0.5 pounds of sulfur dioxide (SO<sub>2</sub>) per million BTU heat input when burning distillate oil (equivalent to a sulfur content of five-tenths percent (0.5%) by weight) and 0.525 pounds per million BTU heat input when burning re-refined waste oil (equivalent to a sulfur content of five-tenths percent (0.5%) by weight) by:
- (1) Providing vendor analysis of fuel delivered, if accompanied by a certification, or;
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the seventy-five MMBtu per hour aggregate dryer, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

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

**D.1.8 Particulate Control**

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Pursuant to CP-033-4711-00055, issued on December 14, 1995, and in order to comply with Conditions D.1.1 and D.1.3(b), the baghouse for PM and PM<sub>10</sub> control shall be in operation and control emissions from the aggregate dryer, cold feed bins, scalping screens, weigh

conveyors, and mixing drum at all times when the aggregate dryer, cold feed bins, scalping screens, weigh conveyors, and mixing drum are in operation.

#### D.1.9 Used Oil Requirements [329 IAC 13-8]

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

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

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

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

##### D.1.10 Visible Emissions Notations

- (a) Visible emission notations of the hot-mix asphalt plant stack exhaust (stack S1) transfer point and conveyors shall be performed once per shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.
- (f) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

##### D.1.11 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the hot-mix asphalt plant, at least once per shift when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

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

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

### **D.1.12 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.1 and D.1.10, the Permittee shall maintain records of visible emissions notations of the hot-mix asphalt plant stack exhaust once per shift.
- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
  - (3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

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

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

- (c) To document compliance with Condition D.1.3(a) and D.1.4, the Permittee shall maintain daily log of production levels of cold-mix/cutback asphalt.
- (d) To document compliance with Condition D.1.5, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (e) To document compliance with Condition D.1.11, the Permittee shall maintain records once per shift of the total static pressure drop during normal operation.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.1.13 Reporting Requirements**

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A quarterly summary of the information to document compliance with Condition D.1.3(a) 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 "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

Source Name: API Construction Corporation  
Source Address: 1633 CR 72, Huntertown, Indiana 46763  
Mailing Address: P.O. Box 191, LaOtto, IN 46763  
Part 70 Permit No.: T033-6270-00055

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

<b>Compliance Monitoring Requirement</b> (e.g. Permit Condition D.1.3(a))	<b>Number of Deviations</b>	<b>Date of each Deviation</b>

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for a Part 70 Significant Permit Modification

### Source Background and Description

<b>Source Name:</b>	<b>API Construction Corporation</b>
<b>Source Location:</b>	<b>1633 CR 72, Huntertown, IN 46748</b>
<b>County:</b>	<b>DeKalb</b>
<b>SIC Code:</b>	<b>2951</b>
<b>Operation Permit No.:</b>	<b>T033-6270-00055</b>
<b>Operation Permit Issuance Date:</b>	<b>August 31, 1999</b>
<b>Significant Permit Modification No.:</b>	<b>033-21085-00055</b>
<b>Permit Reviewer:</b>	<b>Nathan C. Bell</b>

### History

API Construction Corporation was issued a Part 70 Operating Permit T033-6270-00055 on August 31, 1999 for a stationary asphalt plant located at 1633 CR 72, Huntertown, IN 46748. A letter requesting changes to the permit was received by the Office of Air Quality (OAQ) on April 5, 2005. The source requested to add the use of re-refined waste oil as an alternate fuel for the aggregate dryer. The source also notified IDEM that one (1) re-refined waste oil storage tank, with a capacity of 10,000 gallons, is being added to the source as an insignificant activity that is not specifically regulated. No revision of the permit is necessary to accommodate the addition of the re-refined waste oil storage tank.

Upon further review of the permit, OAQ determined that the permit required revising for the following reasons:

- (a) Establishment of a Prevention of Significant Deterioration (PSD) limit for the aggregate dryer, cold feed bins, scalping screens, weigh conveyors, and mixing drum was necessary to limit the source-wide particulate matter (PM and PM<sub>10</sub>) emissions to less than 250 tons per year and to make the requirements of 326 IAC 2-2 not applicable.
- (b) to correct typographical errors, to clarify several conditions in Section D.1, and to add language to Section B that addressed credible evidence.

Pursuant to 326 IAC 2-7-12(d)(1), these changes are being made through a Significant Permit Modification to the Part 70 Permit.

### Modified Emission Units and Pollution Control Equipment

This permit modification includes the following modified emission units and pollution control devices that are permitted under Sections D.1 of the Part 70 permit:

- (a) one (1) natural gas aggregate dryer, with a capacity of 75 million British thermal units per hour (MM Btu/hr), with the capability to fire No. 2 distillate oil or re-refined waste oil as backup fuel, using a baghouse as control, and exhausting at stack S1.

### Existing Approvals

The source was issued a Part 70 Operating Permit T033-6270-00055 on August 31, 1999. The source has since received the following:

- (a) First Reopening 033-13179-00055, issued December 7, 2001.

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Permit Modification 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 were received on April 5, 2005, respectively.

### Emission Calculations

- (a) Re-Refined Waste Oil Storage Tank

Using the Environmental Protection Agency's (EPA) TANKS Version 4.09b program, it was determined that storage of re-refined waste oil at this source would have negligible potential emissions of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs).

- (b) Existing Sulfur Dioxide (SO<sub>2</sub>) Limit for the Aggregate Dryer

- (1) The existing Part 70 Permit limits the sulfur dioxide (SO<sub>2</sub>) emissions as follows:

Sulfur Dioxide (SO<sub>2</sub>) limit for No. 2 Fuel Oil = 0.5 lb SO<sub>2</sub>/MMBtu [326 IAC 7-1.1-2]

If the sulfur content of the fuel oil were known, the emission limit in lb/MMBtu would be calculated as follows:

$$\frac{\text{AP-42 emission factor of fuel oil (lb SO}_2\text{/1000 gallons of oil)}}{\text{Heating value of fuel oil (MMBtu/1000 gallons of oil)}}$$

The AP-42 emission factor for combustion of fuel oil is 142\*S, where S is the percent sulfur content by weight. The heating value of fuel oil is 140 MMBtu/1000 gallons. For fuel oil with a limit of 0.5 lb/MMBtu, this equation becomes:

$$(142*S \text{ lb SO}_2\text{/1000 gal oil}) / (140 \text{ MMBtu/1000 gal oil}) = 0.5 \text{ lb SO}_2\text{/MMBtu}$$

Solving the equation for the sulfur content, S:

$$S = (0.5 \text{ lb SO}_2\text{/MMBtu}) * (140 \text{ MMBtu}) / (142 \text{ lb SO}_2\text{/}\% \text{ sulfur by weight})$$

Limited Weight % Sulfur, S = 0.493% sulfur by weight

$$\begin{aligned} \text{Limited PTE} &= (0.5 \text{ lb SO}_2\text{/MMBtu}) * (75 \text{ MMBtu/hr}) * (8760 \text{ hr/yr}) * (\text{ton}/2000 \text{ lb}) \\ &= \mathbf{164.3 \text{ tons per year SO}_2 \text{ (No. 2 Fuel Oil)}} \end{aligned}$$

- (c) Combustion of Re-Refined Waste Oil in Existing Aggregate Dryer
  - (1) Pursuant to 326 IAC 7-1.1-2, the SO<sub>2</sub> emissions from waste oil would be limited to 1.6 lb SO<sub>2</sub>/MMBtu. **However, the source has requested that the aggregate dryer continue to be limited to a fuel sulfur content of 0.5%.**

**Limited Weight % Sulfur, S = 0.5% sulfur by weight**

The limited potential to emit of SO<sub>2</sub> from the aggregate drying burning waste oil is calculated using the AP-42 emission factor of 147\*S lb SO<sub>2</sub>/1000 gal oil, where S is the percent sulfur content by weight. The heating value of waste oil is approximately 140 MMBtu/1000 gallons. For waste oil with sulfur content limited to 0.5%, the PTE of SO<sub>2</sub> would be:

$$(147 \times 0.5 \text{ lb SO}_2/1000 \text{ gal oil}) / (140 \text{ MMBtu}/1000 \text{ gal oil}) = 0.525 \text{ lb SO}_2/\text{MMBtu}$$

**Limited PTE = 0.525 lb SO<sub>2</sub>/MMBtu**

$$\begin{aligned} \text{Limited PTE} &= (0.525 \text{ lb SO}_2/\text{MMBtu}) * (75 \text{ MMBtu}/\text{hr}) * (8760 \text{ hr}/\text{yr}) * (\text{ton}/2000 \text{ lb}) \\ &= \mathbf{172.5 \text{ tons per year SO}_2} \end{aligned}$$

- (d) For detailed emissions calculations for emission of all other criteria pollutants and hazardous air pollutants (HAPs) from the aggregate dryer, see Appendix A, pages 1 to 4.

**Potential To Emit After Controls of Modification**

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

Type of fuel burned in asphalt plant aggregate dryer	Potential to Emit (PTE) After Controls (tons/year)							
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	Worst HAP	Total HAPs
Natural gas and fuel oil no. 2 (Existing)	0.05	0.08	164.3	1.81	27.6	46.9	0.59 (Hexane)	0.63
Natural gas, fuel oil no. 2, and re-refined waste oil (Including Modification)	1.40	1.11	172.5	2.35	27.6	46.9	4.56 (HCl)	5.74
Net Emission Increase for this modification	1.35	1.04	8.20	0.54	0	0	4.56 (HCl)	5.11

**Justification for Modification**

The Part 70 Permit is being revised through a Significant Permit Modification. This modification is being performed pursuant to 326 IAC 2-7-12(d)(1): "Significant modification procedures shall be used for applications requesting Part 70 permit modifications that do not qualify as minor permit modifications or as administrative amendments. Every significant change in existing monitoring Part 70 permit terms or conditions and every relaxation of reporting or record keeping permit terms or conditions shall be considered significant."

Since the changes being performed in this modification do not qualify as a minor permit modification or as an administrative amendment and would change Part 70 permit terms or conditions, this modification will be significant.

**County Attainment Status**

The source is located in DeKalb County.

Pollutant	Status
PM10	Attainment or Unclassifiable
PM2.5	Attainment or Unclassifiable
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment or Unclassifiable
1-Hour Ozone	Attainment or Unclassifiable
8-Hour Ozone	Attainment or Unclassifiable
CO	Attainment or Unclassifiable
Lead	Attainment or Unclassifiable

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standard. DeKalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) DeKalb 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 PM 2.5 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 surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.
- (c) DeKalb County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

**Potential to Emit After Issuance for the Modification**

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 permit modification.

Type of fuel burned in asphalt plant aggregate dryer	Potential to Emit (PTE) of Modification After Issuance (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	Total HAPs
Asphalt Plant Aggregate Dryer (natural gas, fuel oil no. 2, and re-refined waste oil combustion) (Including Modification)	199 <sup>(a)</sup>	199 <sup>(a)</sup>	172.5 <sup>(b)</sup>	2.35	27.6	46.9	Less than 10/25
Asphalt Plant Material Handling and Conveying (cold bins, screens, conveyors, and drum mixer)			0	234 <sup>(c)</sup>	0	0	
Total PTE for Source after Issuance	Less than 250	Less than 250	Greater than 100; less than 250	Greater than 100; less than 250	27.6	46.9	Less than 10/25
PSD Major Threshold Level	250	250	250	250	250	250	NA

NA = Not applicable

- <sup>(a)</sup> In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, PM/PM-10 emissions from the asphalt plant shall not exceed 199 tons per year and 45.4 pounds per hour.
- <sup>(b)</sup> The source has requested that the aggregate dryer be limited to a fuel sulfur content of to five tenths (0.5%) percent when combusting re-refined waste oil, which is equivalent to an SO<sub>2</sub> limit of 0.525 lb SO<sub>2</sub>/MMBtu. This is equivalent to limited potential emissions of 172.5 tons per year, based on a heat input capacity of 75 MMBtu/hr and operation at 8,760 hours per year. (see Emission Calculations). Pursuant to 326 IAC 7-1.1-2, when combusting No. 2 distillate oil as a backup fuel, SO<sub>2</sub> emissions shall not exceed 0.5 lb SO<sub>2</sub>/MMBtu. This is equivalent to limited potential emissions of 164.3 tons of SO<sub>2</sub> per year, based on a heat input capacity of 75 MMBtu/hr and operation at 8,760 hours per year.
- <sup>(c)</sup> In order to render the requirements of 326 IAC 2-2 (PSD) not applicable for VOC upon construction, CP 033-4711-00055 was issued on December 14, 1995 with a limit on the production of cold-mix asphalt. This permit limited the production of cold-mix/cutback asphalt with a maximum VOC percentage of seventy-six and ninety-two one hundredths (76.92%) to 18,000 tons per twelve consecutive month period with compliance determined at the end of each month. This was equivalent to VOC emissions of less than 234 tons per year from the asphalt plant and rendered the requirements of 326 IAC 2-2 (PSD) not applicable upon construction.

- (a) This modification to an existing minor PSD stationary source will not change the PSD minor status because the emissions from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

**Federal Rule Applicability**

- (a) This source is not subject to the requirements of 40 CFR 63, Subpart DDDDD, (63.7480 through 63.7575), NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters, because the source is not a major source of HAPs.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included for this modification.
- (c) The continuous hot-mix asphalt plant, constructed in 1996, is subject to the requirements of 326 IAC 12 or 40 CFR 60, Subpart I (60.90 through 60.93), Standards of Performance for Hot Mix Asphalt Facilities. This rule applies to each hot mix asphalt facility constructed after June 11, 1973. The initial performance tests required by this Subpart were performed on October 21, 1996 and demonstrated compliance. Pursuant to this rule, the Permittee shall not allow the discharge into the atmosphere of any gases which:

- (1) contain particulate matter in excess of 0.04 gr/dscf (at an air flow rate of 45,000 acfm and an average temperature of 250 °F, this is equivalent to 11.51 lb/hr); or
  - (2) exhibit twenty percent (20%) opacity, or greater.
- (d) This modification is not subject to the requirements of 326 IAC 12 or 40 CFR 60, Subpart Kb (60.110b through 60.117b), Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, because the one (1) re-refined waste oil storage tank has a storage capacity less than seventy-five (75) cubic meters (19,815 gallons).
- (e) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this modification.

### State Rule Applicability

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

This existing source, permitted under Part 70 Permit No. T033-6270-00055 (issued August 31, 1999), is a minor PSD stationary source because it is not of the 28 listed source categories under 326 IAC 2-2, and no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater. This modification to an existing minor PSD stationary source will not change the PSD minor status because the emissions from the entire source will continue to be less than the PSD major source threshold levels (see Potential to Emit for Modification after Issuance for the Modification Table on page 4). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply to this modification.

#### 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The requirements of 326 IAC 2-4.1 are not applicable to this source, since the potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year.

#### 326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it is located in DeKalb County and is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period identified in 326 IAC 2-6.

#### 326 IAC 5-1 (Opacity Limitations)

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

- (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.

### **State Rule Applicability – Aggregate Dryer**

#### 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)

The aggregate dryer is not subject to 326 IAC 6-2, since it is not a source of indirect heating.

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

The asphalt plant, including this modification, is not subject to the requirements of 326 IAC 6-3 because this plant is subject to 40 CFR 60, Subpart I (326 IAC 12). Facilities that are subject to a New Source Performance Standard under 326 IAC 12 are specifically exempt from the requirements of 326 IAC 6-3-2 by 326 IAC 6-3-1(c)(1)(5).

#### 326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)

The requirements of 326 IAC 8-1-6 are not applicable, since the aggregate dryer does not have the potential to emit greater than twenty-five (25) tons of VOCs per year.

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

The aggregate dryer is subject to the requirements of 326 IAC 7-1.1-2 because it has the potential to emit twenty-five (25) tons per year of sulfur dioxide (SO<sub>2</sub>). Pursuant to this rule, sulfur dioxide emissions from the combustion of distillate oil in the aggregate dryer shall not exceed 0.5 pounds per million Btu and sulfur dioxide emissions from the combustion of re-refined waste oil shall not exceed 1.6 pounds per million Btu. However, the source has requested that the aggregate dryer continue to be limited to a fuel sulfur content of 0.5%, which is equivalent to 0.525 lb SO<sub>2</sub>/MMBtu (See Emission Calculations section (c)(3)). These limits do not apply to the combustion of natural gas.

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

Reports of calendar month or annual average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate (pounds SO<sub>2</sub> per MMBtu) shall be provided upon request to the IDEM, OAQ.

#### 329 IAC 13-8 (Used Oil Requirements)

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

### **State Rule Applicability - Re-Refined Waste Oil Storage Tank**

#### 326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)

The requirements of 326 IAC 8-1-6 are not applicable, since the re-refined waste oil storage tank does not have the potential to emit greater than twenty-five (25) tons of VOCs per year.

#### 326 IAC 8-4-3 (Volatile Organic Compounds; Petroleum Liquid Storage Facilities)

The re-refined waste oil storage tank, which will be constructed after January 1, 1980, is not subject to the requirements of 326 IAC 8-4-3, since it has a storage capacity less than thirty-nine thousand (39,000) gallons.

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

The re-refined waste oil storage tank is not subject to the requirements of 326 IAC 8-9, because the source is located in DeKalb County.

#### 326 IAC 12 (New Source Performance Standards)

Pursuant to 326 IAC 12 and 326 IAC 1-1-3, storage tanks which store organic liquids must be reviewed pursuant to the July 1, 2002 version of 40 CFR Part 60, Subpart Kb (60.110b through 60.117b), Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (promulgated on July 1, 2002). The requirements of 40 CFR 60, Subpart Kb (promulgated on July 1, 2002) are not applicable to the re-refined waste oil storage tank, since it has a storage capacity less than forty (40) cubic meters (m<sup>3</sup>) (10,567 gallons).

### **Changes to the Part 70 Permit Due to This Modification:**

Each of the changes made to permit are described below:

- (a) Added re-refined waste oil as an alternate fuel for the aggregate dryer to Sections A.2 and D.1;
- (b) Added a new condition to Section B addressing credible evidence. Indiana was required to incorporate credible evidence provisions into state rules consistent with the SIP call published by U.S. EPA in 1997 (62 FR 8314). Indiana has incorporated the credible evidence provision in 326 IAC 1-1-6. This rule is effective March 16, 2005; therefore, the condition reflecting this rule was incorporated into the permit;
- (c) Revised Condition D.1.1 in order to clarify the requirements of 326 IAC 12, 40 CFR 60.90 Subpart I, and to remove reference to 326 IAC 6-3-2, which is not applicable to this source;
- (d) Revised Condition D.1.2 in order to add the requirements of 326 IAC 7-1.1-2 and 326 IAC 7-2-1 when burning re-refined waste oil in the aggregate dryer and to add the voluntary sulfur content limit for the re-refined waste oil of five tenths percent (0.5%) requested by the source, which makes 326 IAC 2-2 not applicable;
- (e) Revised Condition D.1.3 in order to add a Prevention of Significant Deterioration (PSD) limit for particulate matter (PM and PM<sub>10</sub>) emissions from the aggregate dryer, cold feed bins, scalping screens, weigh conveyors, and mixing drum;
- (f) Revised Condition D.1.6 in order to clarify the testing requirements for PM, PM-10, and opacity and to reference Conditions D.1.3(b);

- (g) Revised Condition D.1.7 in order to add the Compliance Determination Requirements for sulfur dioxide emissions and sulfur content when burning re-refined waste oil in the aggregate dryer and to clarify the compliance requirements;
- (h) Revised Condition D.1.8 in order to include references to Conditions D.1.1 and D.1.3(b) and to clarify the compliance requirements;
- (i) Add new Condition D.1.9 containing the requirements of 329 IAC 13-8, Used Oil Requirements, when the source is burning re-refined waste oil in the aggregate dryer;
- (j) Revised Conditions D.1.10, Visible Emissions Notations and Condition D.1.11, Parametric Monitoring, to clarify the Compliance Monitoring Requirements and to update the permit language to reflect changes made during the Part 70 renewal process;
- (k) Revised Condition D.1.12, Record Keeping Requirements, in order to clarify the requirements when burning natural gas, distillate oil, and re-refined waste oil and to add record keeping requirements for the baghouse and to reference Conditions D.1.10 and D.1.3(a);
- (l) Revised Condition D.1.13, Reporting Requirements, to reference Condition D.1.3(a) in order to clarify the requirements with regards to certification by the responsible official;
- (m) Revised the Quarterly Compliance Monitoring Report (Page 37) to reference Condition D.1.3(a);
- (n) Correction of typographical errors in Section A.1 and Condition D.1.4;
- (o) Renumber conditions and update references to conditions, as necessary.

As described above, the following changes have been made to the permit, with deleted language as ~~strikeouts~~ and new language **bolded**

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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The Permittee owns and operates a stationary asphalt plant.

Source Status: Part 70 Permit Program  
Minor Source, under PSD Rules;  
~~Major~~ **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 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]

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

- (1) One (1) continuous hot-mix asphalt plant, with a capacity of 250 tons of asphalt per hour, consisting of the following:
  - (a) one (1) natural gas aggregate dryer, with a capacity of 75 million British thermal units per hour (MM Btu/hr), with the capability to fire No. 2 distillate oil **or re-refined waste oil** as backup fuel, using a baghouse as control, and exhausting at stack S1, and

**B.27 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]**

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

**SECTION D.1 FACILITY OPERATION CONDITIONS**

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

One (1) continuous hot-mix asphalt plant, with a capacity of 250 tons of asphalt per hour, consisting of the following:

- (a) one (1) natural gas aggregate dryer, with a capacity of 75 million British thermal units per hour (MM Btu/hr), with the capability to fire No. 2 distillate oil **or re-refined waste oil** as backup fuel, using a baghouse as control, and exhausting at stack S1, and

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

**D.1.1 New Source Performance Standard [326 IAC 12] [40 CFR 60.90, Subpart A, Subpart I]**

~~The source has the following applicable New Source Performance Standard (NSPS):~~

- ~~(a) Pursuant to 326 IAC 12, (40 CFR 60.90, Subpart I), the owner/operator of this asphalt plant shall meet the following requirements:~~
  - ~~(1) performance tests shall be performed as specified in this Subpart and as outlined in Part 60.8. The initial performance tests were performed on October 21, 1996, and demonstrated compliance.~~
  - ~~(2) on or after the date of the performance tests are completed, no owner or operator subject to the provisions of Subpart I shall discharge into the atmosphere from any affected facility any gases which:~~
    - ~~(a)(A) contain particulate matter in excess of 0.04 gr/dscf, at an air flow rate of 38,000 acfm, this is equivalent to 9.5 lb/hr,~~
    - ~~(b)(B) exhibit twenty percent (20%) opacity, or greater.~~

~~These conditions also satisfy the requirements of 326 IAC 6-3-2 (Particulate Emissions Limitations for Process operations).~~

- ~~(b) The provisions of 40 CFR Part 60, Subpart A, General Provisions, apply to the asphalt plant except when otherwise specified in 40 CFR Part 60, Subpart I.~~

**D.1.2 Sulfur Dioxide (SO<sub>2</sub>) Emission Limitations [326 IAC 7-1.1-2] [326 IAC 7-2-1] [326 IAC 2-2]**

~~Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), sulfur dioxide (SO<sub>2</sub>) emissions from the combustion of distillate oil shall be limited to aggregate dryer shall not exceed 0.5 pounds per million BTU heat input while burning distillate oil and 1.6 pounds per million BTU heat input while burning re-refined waste oil. This limit does not apply to the combustion of natural gas. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.~~

**The source has requested a voluntary sulfur content limit for the re-refined waste oil of five tenths percent (0.5%), which is equivalent to a sulfur dioxide (SO<sub>2</sub>) emission limit of 0.525 pounds per million BTU heat input while burning re-refined waste oil. Compliance shall be demonstrated on a calendar month average. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and not applicable.**

D.1.3 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

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- (a) Pursuant to CP-033-4711-00055, issued on December 14, 1995, the production of cold-mix/cutback asphalt with the maximum VOC percentage of seventy-six and ninety-two one hundredths (76.92%) shall be limited to 18,000 tons of VOC per twelve month period, rolled on a monthly basis. This usage limit is required to limit the potential to emit of VOC to less than 234 tons per 12 month period, rolled on a monthly basis. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.
- (b) **PM and PM<sub>10</sub> emissions from the aggregate dryer, cold feed bins, scalping screens, weigh conveyors, and mixing drum, shall not exceed 0.182 pounds per ton of asphalt produced, based on a maximum capacity of 250 tons of asphalt per hour. This limit is required to limit the potential to emit of particulate matter (PM) to less than 250 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.**

D.1.4 Miscellaneous Operations: Asphalt Paving [326 IAC 8-5-2]

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

### Compliance Determination Requirements

D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)]

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During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM, **PM-10, and opacity** testing utilizing ~~Methods 5 or 17 (40 CFR 60, Appendix A) for PM, or other~~ methods as approved by the Commissioner **in order to demonstrate compliance with Conditions D.1.1 and D.1.3(b).** This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. **PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C - Performance Testing.** In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.1.7 Sulfur Dioxide Emissions and Sulfur Content

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Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed **0.5 pounds of sulfur dioxide (SO<sub>2</sub>) per million BTU heat input when burning distillate oil (equivalent to a sulfur content of five-tenths percent (0.5%) by weight) and 0.525 pounds per million BTU heat input when burning re-refined waste oil (equivalent to a sulfur content of five-tenths percent (0.5%) by weight)** by:
- (1) Providing vendor analysis of fuel delivered, if accompanied by a certification, **or**;
- (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
- (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
- (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling. ~~or~~

**D.1.8 Particulate Control** ~~Particulate Matter (PM)~~

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Pursuant to CP-033-4711-00055, issued on December 14, 1995, **and in order to comply with Conditions D.1.1 and D.1.3(b)**, the baghouse for PM and PM<sub>10</sub> control shall be in operation **and control emissions from the aggregate dryer, cold feed bins, scalping screens, weigh conveyors, and mixing drum** at all times when the aggregate dryer, cold feed bins, scalping screens, weigh conveyors, and mixing drum are in operation.

**D.1.9 Used Oil Requirements [329 IAC 13-8]**

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

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

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

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

**D.1.910 Visible Emissions Notations** ~~Monitoring~~

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- (a) ~~Daily~~ Visible emission notations of the hot-mix asphalt plant stack exhaust (**stack S1 transfer point and conveyors**) shall be performed **once per shift** during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) **The Compliance Response Plan** ~~Preventive Maintenance Plan~~ for this unit shall contain troubleshooting contingency and **response steps** ~~corrective actions~~ for when an abnormal emission is observed. **Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.**
- (f) **Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.**

### D.1.11 Parametric Monitoring

---

The Permittee shall record the total static pressure drop across the baghouse ~~controlling-used in conjunction with the hot-mix asphalt plant, at least once per shift daily when the process is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise,~~ **When for any one reading, the pressure drop across the baghouse shall be maintained within the is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.** ~~The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.~~

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

~~(e) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.~~

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

#### D.1.120 Record Keeping Requirements

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- (a) To document compliance with Condition D.1.1 **and D.1.10**, the Permittee shall maintain ~~records of a log of daily visible emissions notations of the hot-mix asphalt plant stack exhaust once per shift. observations, daily inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.~~ **records of a log of daily visible emissions notations of the hot-mix asphalt plant stack exhaust once per shift.**
- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. ~~Note that pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.~~
- (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
  - (3) **To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.** ~~A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and~~

If the fuel supplier certification is used to demonstrate compliance, **when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4**, the following, as a minimum, shall be maintained:

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

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and

maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (c) To document compliance with Condition D.1.3(a) and D.1.4, the Permittee shall maintain daily log of production levels of cold-mix/cutback asphalt.
- (d) **To document compliance with Condition D.1.5, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.**
- (e) **To document compliance with Condition D.1.11, the Permittee shall maintain records once per shift of the total static pressure drop during normal operation.**
- (fd) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.134 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.3(a) 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 “responsible official” as defined by 326 IAC 2-7-1(34).**

QUARTERLY COMPLIANCE MONITORING REPORT (Page 37): Changed Condition D.1.3 to D.1.3(a)

#### **Conclusion**

The proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. 033-21085-00055.

**Appendix A: Emissions Calculations  
Emission Summary  
Aggregate Dryer Combustion**

**Company Name: API Construction Corporation  
Address City IN Zip: 1633 CR 72, Hometown, IN 46748  
Permit Modification No.: 033-21085  
Plt ID: 033-00055  
Reviewer: Nathan C. Bell  
Date: May 16, 2005**

Category	Existing Uncontrolled Potential Emissions (tons/year)				Modification Uncontrolled Potential Emissions (tons/year)		
	Pollutant	Natural Gas	Fuel Oil No. 2	Existing Maximum	Re-Refined Waste Oil	Overall Maximum	Net Increase
Criteria Pollutants	PM	0.62	4.69	4.69	139.7	139.7	135.0
	PM10	2.50	7.74	7.74	111.3	111.3	103.5
	SO2	0.20	164.3	164.3	172.5	172.5	8.2
	NOx	32.9	46.9	46.9	44.6	46.9	0
	VOC	1.81	0.80	1.81	2.35	2.35	0.54
	CO	27.6	11.7	27.6	11.7	27.6	0
Hazardous Air Pollutants	Arsenic	0	1.3E-03	0.00	0.26	0.26	0.26
	Benzene	6.9E-04	0	6.9E-04	0	6.9E-04	0
	Beryllium	0	9.9E-04	9.9E-04	0	9.9E-04	0
	Cadmium	3.6E-04	9.9E-04	9.9E-04	0.02	0.02	2.1E-02
	Chromium	4.6E-04	9.9E-04	9.9E-04	0.05	0.05	0.05
	Cobalt	0	0	0	4.9E-04	4.9E-04	4.9E-04
	Dichlorobenzene	3.9E-04	0	3.9E-04	0	3.9E-04	0
	Formaldehyde	0.025	0	0.025	0	0.025	0
	n-Hexane	0.59	0	0.59	0	0.59	0
	Hydrogen chloride	0	0	0	4.56	4.56	4.56
	Lead	1.6E-04	3.0E-03	3.0E-03	0.04	0.04	0.04
	Manganese	1.2E-04	2.0E-03	2.0E-03	0.16	0.16	0.16
	Mercury	0	9.9E-04	9.9E-04	0	9.9E-04	0
	Nickel	6.9E-04	9.9E-04	9.9E-04	0.03	0.03	0.02
	Selenium	0	4.9E-03	4.9E-03	0	4.9E-03	0
	Toluene	1.1E-03	0	1.1E-03	0	1.1E-03	0
<b>Totals</b>				<b>0.63</b>	<b>5.12</b>	<b>5.74</b>	<b>5.11</b>
<b>Worse Case HAP</b>				<b>0.59</b>	<b>4.56</b>	<b>4.56</b>	

Total emissions based on rated capacity at 8,760 hours/year.

Category	Existing Controlled Potential Emissions (tons/year)				Modification Controlled Potential Emissions (tons/year)		
	Pollutant	Natural Gas	Fuel Oil No. 2	Existing Maximum	Re-Refined Waste Oil	Overall Maximum	Net Increase
Criteria Pollutants	PM	0.01	0.05	0.05	1.40	1.40	1.35
	PM10	0.02	0.08	0.08	1.11	1.11	1.04
	SO2	0.20	164.3	164.3	172.5	172.5	8.2
	NOx	32.9	46.9	46.9	44.6	46.9	0
	VOC	1.81	0.80	1.81	2.35	2.35	0.54
	CO	27.6	11.7	27.6	11.7	27.6	0
Hazardous Air Pollutants	Arsenic	0	1.3E-03	0.00	0.26	0.26	0.26
	Benzene	6.9E-04	0	6.9E-04	0	6.9E-04	0
	Beryllium	0	9.9E-04	9.9E-04	0	9.9E-04	0
	Cadmium	3.6E-04	9.9E-04	9.9E-04	0.02	0.02	2.1E-02
	Chromium	4.6E-04	9.9E-04	9.9E-04	0.05	0.05	0.05
	Cobalt	0	0	0	4.9E-04	4.9E-04	4.9E-04
	Dichlorobenzene	3.9E-04	0	3.9E-04	0	3.9E-04	0
	Formaldehyde	0.025	0	0.025	0	0.025	0
	n-Hexane	0.59	0	0.59	0	0.59	0
	Hydrogen chloride	0	0	0	4.56	4.56	4.56
	Lead	1.6E-04	3.0E-03	3.0E-03	0.04	0.04	0.04
	Manganese	1.2E-04	2.0E-03	2.0E-03	0.16	0.16	0.16
	Mercury	0	9.9E-04	9.9E-04	0	9.9E-04	0
	Nickel	6.9E-04	9.9E-04	9.9E-04	0.03	0.03	0.02
	Selenium	0	4.9E-03	4.9E-03	0	4.9E-03	0
	Toluene	1.1E-03	0	1.1E-03	0	1.1E-03	0
<b>Totals</b>				<b>0.63</b>	<b>5.12</b>	<b>5.74</b>	<b>5.11</b>
<b>Worse Case HAP</b>				<b>0.59</b>	<b>4.56</b>	<b>4.56</b>	

Total emissions based on rated capacity at 8,760 hours/year.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100  
Small Industrial Boiler**

**Company Name: API Construction Corporation  
Address City IN Zip: 1633 CR 72, Huntertown, IN 46748  
Permit Modification No.: 033-21085  
Plt ID: 033-00055  
Reviewer: Nathan C. Bell  
Date: May 16, 2005**

Heat Input Capacity (MMBtu/hr) = 75  
Potential Throughput (MMCF/yr) = 657.0

Criteria Pollutants	Pollutant					
	PM*	PM10*	SO2	**NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.6	2.5	0.2	32.9	1.8	27.6

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Baghouse Control Efficiency = 99.0%

	PM	PM10
PTE after controls (ton/yr)	0.01	0.02

Hazardous Air Pollutants	HAPs - Organics					HAPs - Metals				
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	6.9E-04	3.9E-04	0.025	0.591	1.1E-03	1.6E-04	3.6E-04	4.6E-04	1.2E-04	6.9E-04

**Methodology**

**Total HAPs = 0.62 tons per year**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu, MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Abbreviations**

PM = Particulate Matter

NOx = Nitrous Oxides

DCB = Dichlorobenzene

Cr = Chromium

PM10 = Particulate Matter (<10 um)

VOC = Volatile Organic Compounds

Pb = Lead

Mn = Manganese

SO2 = Sulfur Dioxide

CO = Carbon Monoxide

Cd = Cadmium

Ni = Nickel

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#1 and #2 Fuel Oil**

**Company Name: API Construction Corporation**  
**Address City IN Zip: 1633 CR 72, Huntertown, IN 46748**  
**Permit Modification No.: 033-21085**  
**Plt ID: 033-00055**  
**Reviewer: Nathan C. Bell**  
**Date: May 16, 2005**

Heat Input Capacity (MMBtu/hr) = 75 MMBtu/hr  
 Heating Value (MMBtu/kgal) = 140 MMBtu/kgal  
 Potential Throughput (kgals/year) = 4692.9 kgals/yr  
 Limited Sulfur Content of Fuel = 0.5 lb SO<sub>2</sub>/MMBtu  
 S = Limited Weight % Sulfur = 0.493 %

Criteria Pollutants	Pollutant					
	PM*	PM10**	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Emission Factor in lb/kgal	2.0	3.30	70 (142.0S)	20.0	0.34	5.0
Potential Emission in tons/yr	4.7	7.7	164.3	46.9	0.8	11.7

\*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

\*\*PM10 emission factor is filterable and condensable PM10 combined.

Baghouse Control Efficiency	99.0%
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	PM	PM10
PTE after controls (ton/yr)	0.05	0.08

Hazardous Air Pollutants	HAPs - Metals								
	As	Be	Cd	Cr	Pb	Hg	Mn	Ni	Se
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	1.3E-03	9.9E-04	9.9E-04	9.9E-04	3.0E-03	9.9E-04	2.0E-03	9.9E-04	4.9E-03

<b>Total HAPs = 0.016 tons per year</b>
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**Methodology**

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

For Criteria Pollutants: Potential Emissions (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

For HAPs: Potential Emissions (tons/year) = Throughput (mmBtu/hr)\*Emission Factor (lb/mmBtu)\*8,760 hrs/yr / 2,000 lb/ton

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

No data was available in AP-42 for organic HAPs.

**Abbreviations**

PM = Particulate Matter	SO <sub>2</sub> = Sulfur Dioxide	As = Aresenic	Cr = Chromium	Ni = Nickel
PM10 = Particulate Matter (<10 um)	NO <sub>x</sub> = Nitrous Oxides	Be = Beryllium	Hg = Mercury	Pb = Lead
VOC - Volatile Organic Compounds	CO = Carbon Monoxide	Cd = Cadmium	Mn = Manganese	Selenium

