



John R. Kasich, Governor  
 Mary Taylor, Lt. Governor  
 Craig W. Butler, Director

3/4/2016

Certified Mail

Ralph Kyanko  
 KOKOSING MATERIALS INC - PLANT 505  
 PO Box 334  
 Fredericktown, OH 43019

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0142000087  
 Permit Number: P0119219  
 Permit Type: Administrative Modification  
 County: Knox

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, Mt. Vernon News. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall and Ohio EPA DAPC, Central District Office  
 Permit Review/Development Section 50 West Town Street, 6th Floor  
 Ohio EPA, DAPC P.O. Box 1049  
 50 West Town Street Suite 700 Columbus, OH 43216-1049  
 PO Box 1049  
 Columbus, Ohio 43216-1049

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778.

Sincerely,

Michael E. Hopkins, P.E.  
 Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA Region 5 Via E-Mail Notification  
 Ohio EPA-CDO



## Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

Kokosing Materials Inc Plant 505(KMI 505) is a 275 TPH continuous hot mix asphalt plant located in Fredericktown, Ohio. This permit renewal includes an administrative modification to an hourly sulfur dioxide emissions limitation to reflect the results of facility's most recent compliance test.

3. Facility Emissions and Attainment Status:

KMI 505 operates under federally enforceable limitations to avoid classification as a major source under Title V and New Source Review. The facility is limited to an annual production rate of 560,000 tons of asphalt per rolling, 12-month period. Knox County is currently in marginal nonattainment for the 2008 eight-hour ozone standard.

4. Source Emissions:

The 275 TPH continuous hot mix asphalt plant (emissions unit P001) is the source of PE, PM<sub>10</sub>, NO<sub>x</sub>, CO, SO<sub>2</sub>, VOC and toxic air contaminant emissions from the manufacturing of hot mix asphalt. P001 consists of an aggregate drying drum, a mixing drum where liquid asphalt cement and RAP is added, material handling operations, silo filling and drum mix load-out operations. P001 is permitted to burn No. 2 fuel oil, on-spec used oil and natural gas. The raw material mix may contain up to 50% RAP or shingles. Particulate emissions from the drying and mixing drums are controlled by a baghouse.

The facility is also a source of PE and PM<sub>10</sub> from the plant's roadways, parking areas and storage piles. The roadways, parking areas and storage piles are permitted under the quarry (facility id 0142000096) co-located at the facility.

Following a failed SO<sub>2</sub> emissions compliance test, on December 3, 2015, KMI 505 submitted documentation to justify increasing their hourly SO<sub>2</sub> limit when burning natural gas due to the variability of the SO<sub>2</sub> content in their raw materials. Based on the information provided, CDO concluded that it would be appropriate to increase the allowable SO<sub>2</sub> emissions rate.

On September 30 and October 1, 2015, KMI 505 conducted compliance testing on P001 while burning natural gas and employing RAP. The average SO<sub>2</sub> emissions were reported as 4.81 pounds per hour. The hourly SO<sub>2</sub> emissions limitation when burning natural gas established as BAT for P001 is being modified to reflect the results of the compliance test. The modified hourly VOC limitation includes a 15% safety factor as calculated below.

$(4.81\text{lb/hr}) \times 1.15 = 5.5 \text{ pounds of SO}_2 \text{ per hour}$



BAT for P001 was established as 1.42 pounds of fugitive PM<sub>10</sub> per hour and 2.90 pounds of fugitive PE per hour. These limits were back-calculated from the annual federally enforceable limitations for each pollutant. Specifically, the hourly PM<sub>10</sub> and PE limits were established by multiplying the federally enforceable limitations for each pollutant (in tons per year) by 2,000 pounds per ton and dividing by 2,000 hours per year. Without emissions testing (which is unfeasible for these fugitive sources), there is no method to demonstrate compliance with these hourly BAT limits. Consequently, BAT is being administratively modified to limit fugitive PM<sub>10</sub> emissions to 1.73 pounds per hour and fugitive PE to 2.99 pounds per hour. The hourly limitations were established by summing the maximum hourly potential emissions from raw materials loaded in the weigh hopper, aggregate processing, sand processing, screening, transfer points, drum mix load-out and silo filling. The specific emissions calculations can be found in Sections C.1.f)(1)c. and C.1.f)(1)d. of the permit.

The rolling, 12-month emissions limitations for fugitive PE, fugitive PM<sub>10</sub> and fugitive VOC are being administratively modified. The changes to the fugitive PE and fugitive PM<sub>10</sub> emissions limitations reflect updated emissions factors published in AP-42. The change to the fugitive VOC emissions limitation reflects a corrected emissions factor calculation.

Since heptane is not a regulated toxic air contaminant, the heptane modeling results have been removed from the permit. Taking into consideration the annual production limitation of 560,000 tons, the maximum annual emissions for each toxic air contaminant are less than 1.0 ton per year. Therefore, the permit has been revised to state that toxic air contaminant modeling was not necessary.

5. Conclusion:

The issuance of P0119219 is recommended. The emission limitations, operational restrictions, monitoring, recordkeeping and testing requirements contained in this FEPTIO are adequate to ensure that the applicable PE, PM<sub>10</sub>, NO<sub>x</sub>, CO, SO<sub>2</sub> and VOC thresholds will not be exceeded.

6. Please provide additional notes or comments as necessary:

None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	45.69
NO <sub>x</sub>	20.29
SO <sub>2</sub>	18.48
VOC	32.4
PE	9.56
PM <sub>10</sub>	8.27

## PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at: <http://epa.ohio.gov/actions.aspx> or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-2129 email: [HClerk@epa.ohio.gov](mailto:HClerk@epa.ohio.gov)

Draft Air Pollution Permit-to-Install and Operate Administrative Modification  
KOKOSING MATERIALS INC - PLANT 505

11622 Hyatt Road,, Fredericktown, OH 43019

ID#:P0119219

Date of Action: 3/4/2016

Permit Desc:FEPTIO renewal permit for a 275 TPH hot mix asphalt plant including an administrative modification to adjust an hourly sulfur dioxide limit to reflect the most recent compliance test.

The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the ID # or: Pamela McCoy, Ohio EPA DAPC, Central District Office, 50 West Town Street, 6th Floor P.O. Box 1049, Columbus, OH 43216-1049. Ph: (614)728-3778





**DRAFT**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
KOKOSING MATERIALS INC - PLANT 505**

Facility ID:	0142000087
Permit Number:	P0119219
Permit Type:	Administrative Modification
Issued:	3/4/2016
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
KOKOSING MATERIALS INC - PLANT 505

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**Draft Permit-to-Install and Operate**  
KOKOSING MATERIALS INC - PLANT 505  
**Permit Number:** P0119219  
**Facility ID:** 0142000087  
**Effective Date:** To be entered upon final issuance

## Authorization

Facility ID: 0142000087  
Application Number(s): A0053847  
Permit Number: P0119219  
Permit Description: FEPTIO renewal permit for a 275 TPH hot mix asphalt plant including an administrative modification to adjust an hourly sulfur dioxide limit to reflect the most recent compliance test  
Permit Type: Administrative Modification  
Permit Fee: \$625.00 *DO NOT send payment at this time, subject to change before final issuance*  
Issue Date: 3/4/2016  
Effective Date: To be entered upon final issuance  
Expiration Date: To be entered upon final issuance  
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

KOKOSING MATERIALS INC - PLANT 505  
11622 Hyatt Road  
Fredericktown, OH 43019

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office  
50 West Town Street, 6th Floor  
P.O. Box 1049  
Columbus, OH 43216-1049  
(614)728-3778

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler  
Director



**Draft Permit-to-Install and Operate**  
KOKOSING MATERIALS INC - PLANT 505

**Permit Number:** P0119219

**Facility ID:** 0142000087

**Effective Date:** To be entered upon final issuance

## Authorization (continued)

Permit Number: P0119219

Permit Description: FEPTIO renewal permit for a 275 TPH hot mix asphalt plant including an administrative modification to adjust an hourly sulfur dioxide limit to reflect the most recent compliance test

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	Plant 505
Superseded Permit Number:	P0111423
General Permit Category and Type:	Not Applicable



**Draft Permit-to-Install and Operate**  
KOKOSING MATERIALS INC - PLANT 505  
**Permit Number:** P0119219  
**Facility ID:** 0142000087  
**Effective Date:** To be entered upon final issuance

## **A. Standard Terms and Conditions**

**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Central District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.



**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



**Draft Permit-to-Install and Operate**  
KOKOSING MATERIALS INC - PLANT 505

**Permit Number:** P0119219

**Facility ID:** 0142000087

**Effective Date:** To be entered upon final issuance

## **B. Facility-Wide Terms and Conditions**



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.
2. The following emissions unit contained in this permit is subject to 40 CFR Part 60, Subpart I: P001. The complete NSPS requirements may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA, Central District Office.



**Draft Permit-to-Install and Operate**  
KOKOSING MATERIALS INC - PLANT 505  
**Permit Number:** P0119219  
**Facility ID:** 0142000087  
**Effective Date:** To be entered upon final issuance

## **C. Emissions Unit Terms and Conditions**



**1. P001, Plant 505**

**Operations, Property and/or Equipment Description:**

275 TPH Continuous Hot Mix Asphalt Plant (natural gas, No. 2 fuel oil, on-spec used oil)

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - a. See b)(1)f. and d)(13) below.
  - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - a. See b)(1)e., b)(2)d., d)(4), e)(2) and f)(1)h. through f)(1)l. below.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	The emissions limitation specified by this rule is less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3) and 40 CFR Part 60, Subpart I.
b.	OAC rule 3745-17-11(B)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3) and 40 CFR Part 60, Subpart I.
c.	OAC rule 3745-18-06(E)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-31-05(A)(3)	Carbon monoxide (CO) emissions shall not exceed 44.17 pounds per hour when burning on-spec used oil or No. 2 fuel oil.  CO emissions shall not exceed 22.0



**Effective Date:** To be entered upon final issuance

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>pounds per hour when burning natural gas.</p> <p>Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 20.3 pounds per hour when burning on-spec used oil or No. 2 fuel oil.</p> <p>NO<sub>x</sub> emissions shall not exceed 7.98 pounds per hour when burning natural gas.</p> <p>Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 18.15 pounds per hour when burning on-spec used oil or No. 2 fuel oil.</p> <p>SO<sub>2</sub> emissions shall not exceed 5.5 pounds per hour when burning natural gas.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 27.5 pounds per hour when burning on-spec used oil, No. 2 fuel oil, or natural gas.</p> <p>Particulate emissions (PE) from the stack shall not exceed 0.03 gr/dscf when burning on-spec used oil, No. 2 fuel oil, or natural gas.</p> <p>Fugitive PE shall not exceed 2.99 pounds per hour when burning on-spec used oil, No. 2 fuel oil, or natural gas.</p> <p>Fugitive PM<sub>10</sub> emissions shall not exceed 1.73 pounds per hour when burning on-spec used oil, No. 2 fuel oil, or natural gas.</p> <p>Arsenic, cadmium, chromium, and lead emissions are limited by the fuel specifications in b)(2)b. below.</p> <p>Visible particulate emissions from the stack shall not exceed 10% opacity, as a 3-minute average.</p> <p>Bestavailable control measures that are</p>



**Effective Date:** To be entered upon final issuance

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)a. below.</p> <p>No visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper.</p> <p>Visible emissions of fugitive dust (from areas other than the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper) shall not exceed 10% opacity, as a 3-minute average.</p> <p>The drop height of the front end loader bucket shall be minimized to the extent possible in order to minimize or eliminate visible emissions of fugitive dust from the aggregate storage bins.</p> <p>The aggregate loaded into the storage bins shall have a moisture content sufficient to minimize the visible emissions of fugitive dust from conveyors and all transfer points to the dryer.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and 40 CFR Part 60, Subpart I.</p> <p>See b)(2)c. below.</p>
e.	OAC rule 3745-31-05(D) [Federally Enforceable Limitations]	<p>PE from the stack shall not exceed 6.51 tons per rolling, 12-month period.</p> <p>PM<sub>10</sub> emissions from the stack shall not exceed 6.51 tons per rolling, 12-month period.</p> <p>Fugitive PE shall not exceed 3.05 tons per rolling, 12-month period.</p> <p>Fugitive PM<sub>10</sub> emissions shall not exceed 1.76 tons per rolling, 12-month period.</p> <p>CO emissions from the stack shall not</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>exceed 44.98 tons per rolling, 12-month period.</p> <p>Fugitive CO emissions shall not exceed 0.71 tons per rolling, 12-month period.</p> <p>NO<sub>x</sub> emissions shall not exceed 20.29 tons per rolling, 12-month period.</p> <p>SO<sub>2</sub> emissions shall not exceed 18.48 tons per rolling, 12-month period.</p> <p>VOC emissions from the stack shall not exceed 28.0 tons per rolling, 12-month period.</p> <p>Fugitive VOC emissions shall not exceed 4.44 tons per rolling, 12-month period.</p> <p>See b)(2)d. below.</p>
f.	ORC 3704.03(F)(3)(c) and (F)(4) [Toxic Air Contaminant Statute]	See d)(13) below.
g.	NSPS 40 CFR Part 60, Subpart I [In accordance with 40 CFR Part 60 Subpart I 60.90(a) and (b), this emissions unit is a hot mix asphalt plant that has commenced construction or modification after June 11, 1973, and is subject to the emissions limitations/control measures specified in 40 CFR Part 60 Subpart I.]	No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which contain PE in excess of 0.04 gr/dscf or exhibit 20 percent opacity, or greater.

(2) Additional Terms and Conditions

- a. The permittee shall ensure that the baghouse is operated with sufficient air volume to minimize or eliminate visible fugitive emissions from the rotary drum.
- b. Each shipment of oil burned in this emissions unit shall be on-specification (on-spec) oil and shall meet the used oil specifications contained in OAC rule 3745-279-11. The permittee shall determine that the used fuel oil meets these specifications by performing analyses or obtaining copies of analyses or other information from the supplier documenting that the used fuel oil does not exceed (except for flash point which shall not fall below) the following limitations:



Contaminant/Property	Allowable Specifications
Arsenic	5 ppm, maximum
Cadmium	2 ppm, maximum
Chromium	10 ppm, maximum
Total halogens	less than 1,000 ppm; or 4,000 ppm maximum if the presumption that the used oil contains hazardous waste is rebutted, as described below
Lead	100 ppm, maximum
Flash point	100°F, minimum

The used oil burned in this emissions unit shall contain less than the quantifiable levels of PCBs as defined in 40 CFR 761.3; and shall also not exceed the following mercury limitation nor fall below the following heating value:

Heat content	135,000 Btu/gallon, minimum
PCBs	2 ppm, maximum
Mercury	1 ppm, maximum

Used oil containing 1,000 ppm or greater total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph (B)(1) of rule 3745-279-10 of the Administrative Code. The permittee may receive and burn used oil equaling or exceeding 1,000 ppm total halogens, but less than 4,000 ppm, only if the permittee has successfully demonstrated, pursuant to OAC rule 3745-279-63, that the used oil does not contain a listed hazardous waste, by either acquiring and maintaining source process information which demonstrates that the used oil was contaminated by halogenated constituents that would not be listed hazardous waste or by demonstrating that the used oil does not contain significant concentrations of halogens by acquiring and maintaining representative analytical data. Acceptable analytical test protocols that can be used to analyze used oil for halogenated hazardous constituents include SW-846 Test Methods 9075, 9076, and 9077.\*

If analytical results demonstrate that used oil containing 1,000 ppm or more total halogens, but less than 4,000 total halogens, does not contain greater than 100 ppm of any individual halogenated hazardous constituent found in the F001 and F002 listings in OAC rule 3745-51-31 and there is no information suggesting that any other halogenated hazardous constituent (e.g., chlorinated pesticides) has come in contact with the oil, then the presumption that the oil contains hazardous waste has been successfully rebutted.\*\* The rebuttable presumption does not



apply to either metal working oils/fluids containing chlorinated paraffins, if processed through a tolling arrangement as described in OAC rule 3745-279-24(C), or used oils contaminated with chlorofluorocarbons removed from refrigeration units.

The burning of used oil not meeting the above limitations is prohibited in this emissions unit and the fuel oil analyses shall document compliance with each limitation before it is burned. The management and burning of used oil is subject to the Standards for the Management of Used Oil, OAC Chapter 3745-279, and the permittee shall document and assure that used oils burned in this emissions unit meet all of the applicable requirements of this Chapter. If the used oil analyses shows total halogens of 1,000 ppm or greater, the permittee shall obtain and maintain all the necessary records to successfully rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste in accordance with this permit.

\*EPA publication SW-846, 3<sup>rd</sup> (or most current) edition, is available from the Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250-7954; 202/512-1800, document number 955-001-00000-1.

\*\*DMWM policy documented in "Used Oil Burners - New Guidance for Rebuttable Presumption", published April 2008 or most current policy.

- c. All No. 2 and on-spec used oil burned in this emissions unit shall have a sulfur content equal to or less than 0.5%.
- d. The maximum annual asphalt production rate for this emissions unit shall not exceed 560,000 tons per rolling, 12-month period.

c) Operational Restrictions

(1) Raw Material and Fuel Use Restrictions

- a. The permittee shall burn only No. 2 fuel oil, on-spec used oil, or natural gas in this emissions unit.

When a scheduled/planned fuel switch occurs, the permittee shall complete the emission testing required for that fuel in accordance with f)(1)a. and shall perform burner tuning in accordance with f)(2)e.

In the event that the primary fuel supply is unexpectedly interrupted and an unscheduled/unplanned fuel switch is necessary, the permittee shall notify Ohio EPA, Central District Office within three business days after the fuel switch occurs.

- b. The permittee may not receive or burn any used oil which does not meet the standards in OAC rule 3745-279-11 and the specifications listed in this permit without first obtaining a permit-to-install or permit-to-install and operate that authorizes the burning of off-specification used oil. The burning of off-

specification used oil, subject to OAC rule 3745-279-60 through 67, is prohibited as a fuel in this emissions unit.

- c. The permittee may substitute reclaimed asphalt pavement (RAP) or shingles in the raw material feed mix in amounts not to exceed 50 percent of all aggregate materials.
- d. The permittee may substitute asphalt shingles. Asphalt shingles removed from buildings (tear-off material) may be used but only if it has been determined that they do not contain asbestos. Verification that the shingles do not contain asbestos can either be done by actual testing of a representative sample of the shingles, or by verification from the shingle manufacturer that the shingles do not contain asbestos. Records shall be kept documenting the asbestos verification of any shingles used in the feed mix consistent with the language requirements in the standard terms and conditions.

- (2) The exit of the stack serving this emissions unit shall be a minimum of 35 feet above ground.
- (3) The permittee shall restrict the hourly production level (averaged daily) for this emissions unit to 115% or less of the average hourly production level achieved during the most recent stack test that demonstrated compliance with the applicable emissions limitations. [During the most recent stack tests that demonstrated compliance with the applicable emissions limitations, the average hourly production level achieved was 216 tons per hour (September 30 and October 1, 2015).]

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The pressure drop across the fabric filter shall be maintained within the range of 1 to 8 inches of water while the emissions unit is in operation.
- (2) The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the fabric filter while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fabric filter on a daily basis.

(3) **Used Oil Analysis Records**

The permittee shall receive and maintain the chemical analyses from the supplier/marketer for each shipment of used oil burned in this emissions unit (or if the oil is generated on site, the permittee shall conduct the chemical analyses), which shall contain the following information\*:

- a. the date the used oil was received at the facility and the amount received;
- b. the name, address, and U.S. EPA identification number (if applicable) of the generator, transporter, processor/refiner, supplier, and/or marketer;

- c. the results of the following chemical analyses, demonstrating that the used oil meets the standards in OAC rule 3745-279-11:
  - i. arsenic content, in ppm;
  - ii. the cadmium content, in ppm;
  - iii. the chromium content, in ppm;
  - iv. the lead content, in ppm;
  - v. total halogens, in ppm; and
  - vi. the flash point;
- d. where the chemical analysis shows a total halogen content between 1,000 ppm, and below 4,000 ppm, the successful demonstration for the rebuttal of the presumption that the used oil contains or has been mixed with a listed hazardous waste, as described in OAC rule 3745-279-63(C); and
- e. the results of the analyses demonstrating that the used oil meets the heating value and the mercury and PCB limitations contained in this permit.

Each analysis shall be kept in a readily accessible location for a period of not less than 5 years\*\* following the receipt of each shipment of used oil and shall be made available to the Ohio EPA Division of Materials and Waste Management and/or the Division of Air Pollution Control (the Ohio EPA, Central District Office) upon verbal or written request. Any authorized representative of the Ohio EPA may sample or require sampling of any used oil shipments received, stored, or burned by/at this facility for periodic detailed chemical analyses through an independent laboratory.

\*Permittee may use their own used oil recordkeeping form upon approval from Ohio EPA.

\*\*The Division of Air Pollution Control requires these records to be maintained for 5years.

- (4) The permittee shall maintain monthly records of the following information:
  - a. the asphalt production, in tons, for each month;
  - b. the asphalt production, in tons, for each fuel type for each month;
  - c. the maximum percentage of RAP and shingles used in each mix;
  - d. the rolling, 12-month summations of PE (stack), PM<sub>10</sub> (stack), CO (stack), NO<sub>x</sub>, SO<sub>2</sub> and VOC (stack) emissions, in tons; and
  - e. the rolling, 12-month summation of the total asphalt production, in tons.

- (5) The permittee shall perform daily visible emissions checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack, aggregate storage bins, cold aggregate elevators/conveyors, and the enclosures for the hot aggregate elevator, vibrating screens, weigh hopper, rotary drums and the hot mix asphalt elevator serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emissions incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.
- (6) The permittee shall maintain documents provided by the oil supplier for each shipment of No. 2 fuel oil to demonstrate compliance with the sulfur content limitation specified in b)(2)c. These documents must include the receipt or bill of lading that includes confirmation that the fuel meets the sulfur content limitation.
- (7) For each shipment of on-spec used oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
- (8) For each day during which the permittee burns a fuel other than natural gas, No. 2 fuel oil, and/or on-spec used oil, the permittee shall maintain a record of the type, percent sulfur content, and quantity of fuel burned in this emissions unit.
- (9) For each day during which the permittee uses any raw material that is not specifically identified in the associated permit application(s) without prior approval from Ohio EPA, the permittee shall maintain a record of the type and quantity of raw material employed in this emissions unit.
- (10) The permittee shall maintain documentation verifying that any shingles employed do not contain asbestos as described in c)(1)d.
- (11) While performing each burner evaluation/tuning, the permittee shall record the results of the burner evaluation/tuning using the Burner Evaluation/Tuning Reporting Form for Asphalt Concrete Plants form (as found in g)(1)). An alternative form may be used upon approval of the Ohio EPA, Central District Office.
- (12) The permittee shall maintain daily records of the following information:
  - a. the amount, in tons, of asphalt produced;
  - b. the operating hours of the emissions unit; and

- c. the average operating rate, in tons per hour.
- (13) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit.
- e) Reporting Requirements
- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the Central District Office, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) Quarterly Deviation (Excursion) Reports
- The permittee shall submit quarterly deviation (excursion) reports that identify:
- a. all deviations (excursions) of the following emissions limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit of any regulated air pollutant and have been detected by the monitoring, recordkeeping and/or testing requirements in this permit:
    - i. all exceedances of the rolling, 12-month asphalt production limitation;
    - ii. all exceedances of the rolling, 12-month PE (stack), PM<sub>10</sub> (stack), PE (fugitive), PM<sub>10</sub> (fugitive), CO (stack), CO (fugitive), NO<sub>x</sub>, SO<sub>2</sub>, VOC (stack) and VOC (fugitive) emissions limitations; and
    - iii. all periods of time when the emissions unit burned a fuel other than natural gas, No. 2 fuel oil, or on-spec used oil;
  - b. the probable cause of each deviation (excursion);

- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the director (the Central District Office).

(3) Annual Permit Evaluation Report (PER)

The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

In addition to the reporting the information as required by the PER instructions, the permittee shall provide the following additional information in the PER:

- a. for the quality of used oil burned in this emissions unit:
  - i. any exceedance of the used oil standards in OAC rule 3745-279-11;
  - ii. any occasion where used oil containing 1,000 ppm or more total halogens was burned prior to receiving information demonstrating a successful rebuttal of the presumption that the used oil contains or has been mixed with a listed hazardous waste;
  - iii. any exceedance of the limitations for mercury and/or PCBs;
  - iv. any deviation from the minimum heat content of 135,000 Btu/gallon;
- b. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
- c. all exceedances of the RAP and/or shingles raw material mix limitations;
- d. all Burner Evaluation/Tuning Reporting Form for Asphalt Concrete Plants forms produced during the past calendar year;
- e. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
- f. all days during which any visible emissions of fugitive dust were observed; and
- g. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.

The above information shall be provided as an attachment to the PER. If there is no exceedance(s), day(s) and/or corrective action(s) to identify as required above, the permittee shall indicate within the "Additional Information and Corrections" section of the PER that no exceedance(s), day(s) and/or corrective action(s) happen and/or were taken.

- (4) The permittee shall notify Ohio EPA, Central District Office, of any record demonstrating that the hot mix asphalt plant's hourly production level (averaged daily) exceeded 115% of the average hourly production level achieved during the most recent stack test that demonstrated compliance with the applicable emissions limitations. The notification shall be made within three business days after the exceedance occurs.
  - (5) The permittee shall notify Ohio EPA, Central District Office, of any unscheduled/unplanned fuel switch due to the unexpected interruption of the primary fuel supply. The notification shall be made within three business days after the fuel switch occurs.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emissions Limitations:

PE from the stack shall not exceed 0.03 gr/dscf when burning on-spec used oil, No. 2 fuel oil, or natural gas.

NO<sub>x</sub> emissions shall not exceed 20.3 pounds per hour when burning on-spec used oil or No. 2 fuel oil.

NO<sub>x</sub> emissions shall not exceed 7.98 pounds per hour when burning natural gas.

CO emissions shall not exceed 44.17 pounds per hour when burning on-spec used oil or No. 2 fuel oil.

CO emissions shall not exceed 22.0 pounds per hour when burning natural gas.

SO<sub>2</sub> emissions shall not exceed 18.15 pounds per hour when burning on-spec used oil or No. 2 fuel oil.

SO<sub>2</sub> emissions shall not exceed 5.5 pounds per hour when burning natural gas.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

      - i. The emissions testing shall be conducted within 6 months prior to permit expiration. In addition, testing shall be conducted as required by c)(1)a., if necessary.

- ii. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emissions rates for PE, NO<sub>x</sub>, CO and SO<sub>2</sub>. When a scheduled/planned fuel switch occurs, emission testing shall be conducted within 60 days after the switch to the secondary fuel. Prior to secondary fuel use emissions testing, the permittee shall consult the Ohio EPA, Central District Office to determine which pollutants and test methods should be tested.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emissions rate(s) for:
  - PE, Methods 1-5 of 40 CFR Part 60, Appendix A
  - NO<sub>x</sub>, Methods 1-4 and 7E of 40 CFR Part 60, Appendix A
  - CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A
  - SO<sub>2</sub>, Methods 1-4 and 6 of 40 CFR Part 60, Appendix AAlternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.
- v. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emissions test(s).
- vi. Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- vii. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

b. Emissions Limitation:

VOC emissions shall not exceed 27.5 pounds per hour when burning on-spec used oil, No. 2 fuel oil, or natural gas.

Applicable Compliance Method:

Compliance with the VOC emissions limitation (while using natural gas) was demonstrated through emissions tests performed on September 30 and October 1, 2015.

If required, compliance with the VOC emissions limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and Methods 18 and/or 25.

c. Emissions Limitation:

Fugitive PE shall not exceed 2.99 pounds per hour when burning on-spec used oil, No. 2 fuel oil, or natural gas.

Applicable Compliance Method:

The hourly fugitive PE limitation was established to reflect the emissions unit's potential to emit by summing the following calculations:

- i. for the emissions from raw material loaded in the weigh hopper, 1.32 pounds of PE per hour derived from 275 tons of asphalt times the emissions factor of 0.0048 lb of PE per ton (AP-42, Table 11.12-2 dated 06/2006);
- ii. for the emissions from aggregate handling, 1.14 pounds of PE per hour derived from 275 tons of asphalt times 0.60 ton of aggregate used per ton of asphalt times the emissions factor of 0.0069 lb of PE per ton (AP-42, Table 11.12-2 dated 06/2006);
- iii. for the emissions from sand handling, 0.23 pounds of PE per hour derived from 275 tons of asphalt times 0.40 ton of sand used per ton of asphalt times the emissions factor of 0.0021 lb of PE per ton (AP-42, Table, 11.12-2 dated 06/2006);
- iv. for the emissions from silo filling, 0.16 pounds of PE per hour derived from 275 tons of asphalt times the emissions factor of 0.000586 lb of PE per ton (AP-42, Table 11.1-14 dated 03/2004); and
- v. for the emissions from asphalt loadout, 0.14 pounds of PE per hour derived from 275 tons of asphalt times the emissions factor of 0.000522 lb of PE per ton (AP-42, Table 11.1-14 dated 03/2004).

d. Emissions Limitation:

Fugitive PM<sub>10</sub> emissions shall not exceed 1.73 pounds per hour when burning on-spec used oil, No. 2 fuel oil, or natural gas.

Applicable Compliance Method:

The hourly fugitive PM<sub>10</sub> emissions limitation was established to reflect the emissions unit's potential to emit by summing the following calculations:

- i. for the emissions from raw material loaded in the weigh hopper, 0.77 pounds of PM<sub>10</sub> per hour derived from 275 tons of asphalt times the emissions factor of 0.0028 lb of PM<sub>10</sub> per ton (AP-42, Table 11.12-2 dated 06/2006);
- ii. for the emissions from aggregate handling, 0.54 pounds of PM<sub>10</sub> per hour derived from 275 tons of asphalt times 0.60 ton of aggregate used per ton of asphalt times the emissions factor of 0.0033 lb of PM<sub>10</sub> per ton (AP-42, Table 11.12-2 dated 06/2006);
- iii. for the emissions from sand handling, 0.11 pounds of PM<sub>10</sub> per hour derived from 275 tons of asphalt times 0.40 ton of sand used per ton of asphalt times the emissions factor of 0.00099 lb of PM<sub>10</sub> per ton (AP-42, Table, 11.12-2 dated 06/2006);
- iv. for the emissions from silo filling, 0.16 pounds of PM<sub>10</sub> per hour derived from 275 tons of asphalt times the emissions factor of 0.000586 lb of PM<sub>10</sub> per ton (AP-42, Table 11.1-14 dated 03/2004); and
- v. for the emissions from asphalt loadout, 0.14 pounds of PM<sub>10</sub> per hour derived from 275 tons of asphalt times the emissions factor of 0.000522 lb of PM<sub>10</sub> per ton (AP-42, Table 11.1-14 dated 03/2004).

e. Emissions Limitation:

Visible particulate emissions from the stack shall not exceed 10% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the visible particulate emissions limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.

f. Emissions Limitation:

No visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper.



Applicable Compliance Method:

If required, compliance with the visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 22.

g. Emissions Limitations:

Visible emissions of fugitive dust (from areas other than the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper) shall not exceed 10% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

h. Emissions Limitations:

PE from the stack shall not exceed 6.51 tons per rolling, 12-month period.

PM<sub>10</sub> emissions from the stack shall not exceed 6.51 tons per rolling, 12-month period.

CO emissions from the stack shall not exceed 44.98 tons per rolling, 12-month period.

NO<sub>x</sub> emissions shall not exceed 20.29 tons per rolling, 12-month period.

SO<sub>2</sub> emissions shall not exceed 18.48 tons per rolling, 12-month period.

VOC emissions from the stack shall not exceed 28.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the tons per rolling, 12-month period limitations shall be determined by multiplying the observed stack emissions rate from the most recent emissions test, in pounds of per ton of asphalt produced (using PE as a surrogate for PM<sub>10</sub>), by the actual rolling 12-month summation of asphalt produced, in tons per rolling 12-month period, (as derived from the records required by d)(4) above) and dividing by 2,000 pounds per ton.

i. Emissions Limitation:

Fugitive PE shall not exceed 3.05 tons per rolling, 12-month period.

Applicable Compliance Method:

The rolling, 12-month fugitive PE limitation was established to reflect the emissions unit's potential to emit taking into consideration the maximum annual asphalt production limitation established under b)(2)d. above. The rolling, 12-month fugitive PE limitation was established by summing the following calculations:

- i. for the emissions from raw material loaded in the weigh hopper, 1.34 tons of PE per rolling 12-month period derived from 560,000 tons of asphalt times the emissions factor of 0.0048 lb of PE per ton divided by 2,000 pounds per ton (AP-42, Table 11.12-2 dated 06/2006);
- ii. for the emissions from aggregate handling, 1.16 tons of PE per rolling 12-month period derived from 560,000 tons of asphalt times 0.60 ton of aggregate used per ton of asphalt times the emissions factor of 0.0069 lb of PE per ton divided by 2,000 pounds per ton (AP-42, Table 11.12-2 dated 06/2006);
- iii. for the emissions from sand handling, 0.24 tons of PE per rolling 12-month period derived from 560,000 tons of asphalt times 0.40 ton of sand used per ton of asphalt times the emissions factor of 0.0021 lb of PE per ton divided by 2,000 pounds per ton (AP-42, Table, 11.12-2 dated 06/2006);
- iv. for the emissions from silo filling, 0.16 tons of PE per rolling 12-month period derived from 560,000 tons of asphalt times the emissions factor of 0.000586 lb of PE per ton for silo filling divided by 2,000 pounds per ton (AP-42, Table 11.1-14 dated 03/2004); and
- v. for the emissions from asphalt loadout, 0.15 tons of PE per rolling 12-month period derived from 560,000 tons of asphalt times the emissions factor of 0.000522 lb of PE per ton for loadout divided by 2,000 pounds per ton (AP-42, Table 11.1-14 dated 03/2004).

Compliance with the rolling, 12-month fugitive PE limitation may be assumed provided the permittee demonstrates compliance with the rolling, 12-month asphalt production limitation through the recordkeeping requirements specified in d)(4) above.

j. Emissions Limitation:

Fugitive PM<sub>10</sub> emissions shall not exceed 1.76 tons per rolling, 12-month period.

Applicable Compliance Method:

The rolling, 12-month fugitive PM<sub>10</sub> limitation was established to reflect the emissions unit's potential to emit taking into consideration the maximum annual asphalt production limitation established under b)(2)d. above. The rolling, 12-

month fugitive PM<sub>10</sub> limitation was established by summing the following calculations:

- i. for the emissions from raw material loaded in the weigh hopper, 0.78 tons of PM<sub>10</sub> per rolling 12-month period derived from 560,000 tons of asphalt times the emissions factor of 0.0028 lb of PM<sub>10</sub> per ton divided by 2,000 pounds per ton (AP-42, Table 11.12-2 dated 06/2006);
- ii. for the emissions from aggregate handling, 0.55 tons of PM<sub>10</sub> per rolling 12-month period derived from 560,000 tons of asphalt times 0.60 ton of aggregate used per ton of asphalt times the emissions factor of 0.0033 lb of PM<sub>10</sub> per ton divided by 2,000 pounds per ton (AP-42, Table 11.12-2 dated 06/2006);
- iii. for the emissions from sand handling, 0.11 tons of PM<sub>10</sub> per rolling 12-month period derived from 560,000 tons of asphalt times 0.40 ton of sand used per ton of asphalt times the emissions factor of 0.00099 lb of PM<sub>10</sub> per ton divided by 2,000 pounds per ton (AP-42, Table, 11.12-2 dated 06/2006);
- iv. for the emissions from silo filling, 0.16 tons of PM<sub>10</sub> per rolling 12-month period derived from 560,000 tons of asphalt times the emissions factor of 0.000586 lb of PM<sub>10</sub> per ton for silo filling divided by 2,000 pounds per ton (AP-42, Table 11.1-14 dated 03/2004); and
- v. for the emissions from asphalt loadout, 0.15 tons of PM<sub>10</sub> per rolling 12-month period derived from 560,000 tons of asphalt times the emissions factor of 0.000522 lb of PM<sub>10</sub> per ton for loadout divided by 2,000 pounds per ton (AP-42, Table 11.1-14 dated 03/2004).

Compliance with the rolling, 12-month fugitive PM<sub>10</sub> limitation may be assumed provided the permittee demonstrates compliance with the rolling, 12-month asphalt production limitation through the recordkeeping requirements specified in d)(4) above.

k. Emissions Limitation:

Fugitive CO emissions shall not exceed 0.71 tons per rolling, 12-month period.

Applicable Compliance Method:

The rolling, 12-month fugitive CO limitation was established to reflect the emissions unit's potential to emit taking into consideration the maximum annual asphalt production limitation established under b)(2)d. above. The rolling, 12-month fugitive CO limitation was established by summing the following calculations:

- i. for the emissions from asphalt silo filling, 0.33 tons per rolling 12-month period derived from 560,000 tons of asphalt produced per rolling 12-month period times the emission factor of 0.00118 lb of CO per ton of asphalt produced divided by 2,000 pounds per ton (AP-42, Table 11.1-14 dated 03/2004); and
- ii. for the emissions from asphalt loadout, 0.38 tons per rolling 12-month period derived from 560,000 tons of asphalt produced per rolling 12-month period times the emission factor of 0.00135 lb of CO per ton of asphalt produced divided by 2,000 pounds per ton (AP-42, Table 11.1-14 dated 03/2004).

Compliance with the rolling, 12-month fugitive CO limitation may be assumed provided the permittee demonstrates compliance with the rolling, 12-month asphalt production limitation through the recordkeeping requirements specified in d)(4) above.

I. Emissions Limitation:

Fugitive VOC emissions shall not exceed 4.44 tons per rolling, 12-month period.

Applicable Compliance Method:

The rolling, 12-month fugitive VOC limitation was established to reflect the emissions unit's potential to emit taking into consideration the maximum annual asphalt production limitation established under b)(2)d. above. The rolling, 12-month fugitive VOC limitation was established by summing the following calculations:

- i. for the emissions from asphalt silo filling, 3.36 tons per rolling 12-month period derived from 560,000 tons of asphalt produced per rolling 12-month period times the emission factor of 0.0120 lb of VOC per ton of asphalt produced divided by 2,000 pounds per ton (AP-42, Table 11.1-14 dated 03/2004); and
- ii. for the emissions from asphalt loadout, 1.08 tons per rolling 12-month period derived from 560,000 tons of asphalt produced per rolling 12-month period times the emission factor of 0.00386 lb of VOC per ton of asphalt produced divided by 2,000 pounds per ton (AP-42, Table 11.1-14 dated 03/2004).

Compliance with the rolling, 12-month fugitive VOC limitation may be assumed provided the permittee demonstrates compliance with the rolling, 12-month asphalt production limitation through the recordkeeping requirements specified in d)(4) above.

m. Emissions Limitations:

No owner or operator subject to the provisions of 40 CFR Part 60, Subpart I shall discharge or cause the discharge into the atmosphere from any affected facility

any gasses which contain PE in excess of 0.04 gr/dscf and exhibit 20 percent opacity, or greater.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the applicable testing requirements specified in 40 CFR Part 60, Subpart I, in accordance with 40 CFR 60.8 and 40 CFR 60.93.

(2) Burner Evaluation/Tuning

a. Introduction

The permittee is required to conduct periodic evaluation/tuning of the asphalt plant burner as set forth below. The purpose of this evaluation/tuning is to ensure that the burner is adjusted and maintained in order to make the burner as fuel efficient as possible.

b. Qualifications for Burner Evaluation/Tuning

Technicians who conduct the burner evaluation/tuning must be qualified to perform the expected burner evaluation/tuning tasks. In order to be qualified, the technician must have passed manufacturer's training concerning burner evaluation/tuning, or must have been trained by someone who has completed the manufacturer's training concerning burner evaluation/tuning. Burner evaluation/tuning technicians can be either permittee employees or outside parties.

c. Portable Monitor Requirements

Portable monitors used for burner evaluation/tuning shall be properly operated and maintained to monitor the concentration of NO<sub>x</sub>, O<sub>2</sub> and CO in the stack exhaust gases from this emissions unit. The monitor(s) shall be capable of measuring the expected concentrations of the measured gases. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The owner or operator of the portable monitor shall maintain records of each portable monitoring device's calibration.

d. Burner Evaluation/Tuning Procedure

An alternative form may be used as long as it contains the same data elements as the Burner Evaluation/Tuning Reporting Form for Asphalt Concrete Plants form.

The burner shall be evaluated and, if necessary, tuned based on the frequency described in f)(2)e.

The general procedure for evaluating and, if necessary, tuning the burner involves the following steps:

- i. Review the plant operations to ensure the plant is operating normally based on weather conditions and production.
- ii. Confirm that the portable monitor is calibrated per the manufacturer's specifications.
- iii. Using the calibrated monitor and the monitor manufacturer's recommended sampling duration, measure the stack exhaust gas values for NO<sub>x</sub>, O<sub>2</sub>, and CO. These measurements shall be taken at a location representative of stack emissions. Record the values in the "Pre-Tuning" results column on the Burner Evaluation/Tuning Reporting Form for Asphalt Concrete Plants form (as found in g)(1) below). An alternative form may be used as long as it contains the same data elements as the Burner Evaluation/Tuning Reporting Form for Asphalt Concrete Plants form.
- iv. Make any necessary adjustments and repairs to the burner in order to make the burner as fuel efficient as possible.
- v. If adjustments or repairs are made to the burner, then the technician shall re-measure the stack exhaust gas values for NO<sub>x</sub>, O<sub>2</sub>, and CO. This procedure shall be repeated until the technician is satisfied that the burner has been appropriately tuned. Once he/she is satisfied, then the technician shall record the post tune NO<sub>x</sub>, O<sub>2</sub>, and CO values in the "Post Tuning" results column on the Burner Evaluation/Tuning Reporting Form for Asphalt Concrete Plants (or equivalent) form.

Note that the Ohio EPA reserves the right to require permittees to conduct additional emissions tests to verify compliance. Operators who choose not to keep their burners in tune are more likely to be required by Ohio EPA to conduct additional emissions tests to verify compliance. Therefore, it is recommended that permittees make necessary adjustments and repairs to burners as soon as possible and verify that the burner is operating as designed.

- vi. Submit a copy of all Burner Evaluation/Tuning Reporting Form for Asphalt Concrete Plants forms produced during the past calendar year to the Ohio EPA, Central District Office with the PER. Note: These forms are required to be submitted even if the burner is not actually adjusted.

e. Burner Evaluation/Tuning Frequency

The permittee shall conduct the burner evaluation/tuning procedure within 30 production days after commencement of the production season in the State of Ohio. The permittee shall conduct another burner evaluation/tuning procedure within 15 production days before or after June 1st of each year and within 15 production days before or after September 1st of each year. For purposes of this permit, the production season is defined as the time period between the date the first ton of asphalt is produced and the date that the last ton of asphalt is produced during the same calendar year. A burner evaluation/tuning is not



**Draft Permit-to-Install and Operate**  
KOKOSING MATERIALS INC - PLANT 505

**Permit Number:** P0119219

**Facility ID:** 0142000087

**Effective Date:** To be entered upon final issuance

required if the production season ends prior to the associated evaluation/tuning due date. If the initial season evaluation/tuning is done within 30 days prior to June 1 or September 1, the evaluation/tuning associated with that due date is not required.

In addition to the burner evaluation/tuning procedure required above, the permittee shall conduct the burner evaluation/tuning procedure within 20 production days from the date that a scheduled/planned fuel switch occurs.

- g) Miscellaneous Requirements
  - (1) Burner Evaluation/Tuning Form (See next page)

## BURNER EVALUATION/TUNING REPORTING FORM FOR ASPHALT CONCRETE PLANTS

Facility ID:	Evaluation/Tuning Date:
Legal Name:	Other Company Name (if different than legal name):
Mailing Address:	Other Company Site Address: (if different than mailing address):
City, State, Zip Code:	Other Company City, County, Zip Code:
Site Contact Person:	Site Contact Telephone Number:
Site Contact Title:	Site Contact Fax Number:
Name of company performing evaluation/tuning:	Name of company performing emission monitoring:
Type of plant (ie: batch, drum mix, etc.):	Calibration date for analyzers:

Reason for Evaluation/Tuning:     Season Initial Tuning     June Tuning     September Tuning  
 Fuel Switch     Other (describe)

Fuel employed during evaluation/tuning:     Natural Gas     Propane     # 2 Fuel Oil     # 4 Fuel Oil  
 Used Oil     Other (describe)

### Evaluation/Tuning Results:

Parameter	Results	
	Pre Tuning	Post Tuning <sup>2</sup>
Fuel flow to the burner (gallon/hr) (for fuel oil and on-spec used oil)		
Fuel pressure (psi)		
For burners that require compressed air for proper operation, pressure at the burner (psi)		
Carbon Monoxide (CO) concentrations (ppm) <sup>1</sup>		
NOx concentrations (ppm) <sup>2</sup>		
Oxygen concentrations (percent) <sup>2</sup>		

Asphalt Production (ton/hr)		
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<sup>1</sup> Specify whether on a dry or wet basis.

<sup>2</sup> If the burner did not require adjusting, please record N/A in the post tuning column.

Describe in detail a list of adjustments and/or repairs made to bring the operating parameters into conformance with the manufacturer's specifications. Use additional paper if necessary.

Authorized Signature: This signature shall constitute personal affirmation that all statements or assertions of fact made in this form are true and complete, comply fully with applicable state requirements, and shall subject the signatory to liability under applicable state laws forbidding false or misleading statements.

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Name of Official (Printed or Typed):	Title of Official and Phone Number:
Signature of Official:	Date:

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