



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

8/12/2010

Ralph Kyanko
Kokosing Materials Inc - Plant 514
PO Box 334
Fredericktown, OH 43019

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0142000088
Permit Number: P0106327
Permit Type: OAC Chapter 3745-31 Modification
County: Knox

Certified Mail

| | |
|-----|------------------------------------|
| No | TOXIC REVIEW |
| No | PSD |
| No | SYNTHETIC MINOR TO AVOID MAJOR NSR |
| No | CEMS |
| No | MACT |
| No | NSPS |
| No | NESHAPS |
| No | NETTING |
| No | MAJOR NON-ATTAINMENT |
| No | MODELING SUBMITTED |
| No | SYNTHETIC MINOR TO AVOID TITLE V |
| Yes | FEDERALLY ENFORCABLE PTIO (FEPTIO) |

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Kevin Boyce," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-CDO



Response to Comments

Response to comments for: Permit-To-Install and Operate

| | |
|--|--|
| Facility ID: | 0142000088 |
| Facility Name: | Kokosing Materials Inc - Plant 514 |
| Facility Description: | Paving mixtures and blocks |
| Facility Address: | 17531 Waterford Rd Fredericktown, OH 43019 Knox County |
| Permit #: | P0106327, OAC Chapter 3745-31 Modification |
| A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Mt. Vernon News on 07/06/2010. The comment period ended on 08/06/2010. | |
| Hearing date (if held) | |
| Hearing Public Notice Date (if different from draft public notice) | |

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: **None**
 - a. Comment: **None**
 - b. Response: **None**



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Kokosing Materials Inc - Plant 514**

Facility ID: 0142000088
Permit Number: P0106327
Permit Type: OAC Chapter 3745-31 Modification
Issued: 8/12/2010
Effective: 8/12/2010
Expiration: 8/12/2015



Division of Air Pollution Control
Permit-to-Install and Operate
for
Kokosing Materials Inc - Plant 514

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Authorization

Facility ID: 0142000088

Application Number(s): A0039516

Permit Number: P0106327

Permit Description: modification to a 400 TPH Asphalt plant to account for the increase in emissions as a result of the proposed employment of slag

Permit Type: OAC Chapter 3745-31 Modification

Permit Fee: \$900.00

Issue Date: 8/12/2010

Effective Date: 8/12/2010

Expiration Date: 8/12/2015

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Kokosing Materials Inc - Plant 514
17531 Waterford Rd
Fredericktown, OH 43019

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

Ohio 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



Chris Korleski
Director



Authorization (continued)

Permit Number: P0106327
Permit Description: modification to a 400 TPH Asphalt plant to account for the increase in emissions as a result of the proposed employment of slag

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

| | |
|-----------------------------------|----------------|
| Emissions Unit ID: | P901 |
| Company Equipment ID: | 400 TPH Plant |
| Superseded Permit Number: | 01-01290 |
| General Permit Category and Type: | Not Applicable |

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. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. 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 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 submitting¹ 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 emissions 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.

¹ Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

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.

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.

C. Emissions Unit Terms and Conditions



1. P901, 400 TPH Plant

Operations, Property and/or Equipment Description:

400 TPH counterflow drum asphalt plant fired with no. 2 fuel oil, natural gas or on-spec waste oil controlled by a cyclone and fabric filter (Portable Plant no. 514) .

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. d)(9)

(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. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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 3745-31-05 (A)(3) | Carbon Monoxide(CO) emissions from burning on-spec used oil, number 2 fuel oil or natural gas shall not exceed 120.0 pounds per hour. Nitrogen Oxides (NO _x) emissions from burning on-spec used oil or number 2 fuel oil shall not exceed 40.0 pounds per hour. NO _x emissions from burning natural gas shall not exceed 36.0 pounds per hour. Volatile Organic Compound (VOC) emissions from burning on-spec used oil, number 2 fuel oil, or natural gas shall not exceed 42.0 pounds per |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|---|---|
| | | <p>hour.</p> <p>Sulfur dioxide (SO₂) emissions while burning natural gas shall not exceed 3.3 pounds per hour.</p> <p>SO₂ emissions while burning on-spec used oil or number 2 fuel oil shall not exceed 48.0 pounds per hour.</p> <p>SO₂ emissions while burning any permitted fuel and employing slag in the mix shall not exceed 51.75 pounds per hour.</p> <p>Particulate emissions from the stack shall not exceed 0.030 gr/dscf.</p> <p>Arsenic, cadmium, chromium, and lead emissions are limited by the fuel specifications in b) 2.g below.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-05(D) and 3745-21-08(B).</p> <p>See b) 2.a-h below.</p> |
| b. | OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V permitting) | <p>Stack Emissions</p> <p>NO_x emissions shall not exceed 36.0 tons per rolling 12-month period.</p> <p>SO₂ emissions shall not exceed 51.75 tons per rolling, 12-month period.</p> <p>CO emissions shall not exceed 90.0 tons per rolling 12-month period.</p> <p>VOC emissions shall not exceed 42.0 tons per rolling 12-month period.</p> <p>PE shall not exceed 11.2 tons per rolling 12-month period.</p> <p>Asphalt Load Out Emissions</p> |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|--|---|
| | | <p>Emissions from load out operations shall not exceed 0.41 ton CO per rolling 12-month period, 0.16 ton PE per rolling 12-month period and 1.16 tons of OC per rolling 12-month period.</p> <p>Asphalt Silo Filling Emissions</p> <p>Emissions from silo filling operations shall not exceed 0.35 ton CO per rolling 12-month period, 0.18 ton PE per rolling 12-month period and 3.60 tons OC per rolling 12-month period.</p> <p>Cold End Fugitive Dust Emissions</p> <p>Emissions of fugitive dust associated with the cold aggregate, sand and RAP loading, and the cold aggregate, sand and RAP transfer operations shall not exceed 3.72 tons of PE per rolling 12-month period.</p> |
| c. | OAC rule 3745-21-08(B) | See (2)h below. |
| d. | OAC rule 3745-17-07(A)(1) OAC rule 3745-17-11(B)(1) OAC rule 3745-17-07(B) OAC rule 3745-17-08 OAC rule 3745-18-06(E) OAC rule 3745-21-07(B) 40 CFR Part 60, Subpart I | The emissions limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3). |

(2) Additional Terms and Conditions

- a. 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.
- b. The aggregate loaded into the cold aggregate bins shall have a moisture content sufficient to minimize or eliminate visible emissions of fugitive dust from conveyors and all transfer points to the dryer.
- c. There shall be no visible emissions of fugitive dust from the enclosures for the rotary drum and the hot mix asphalt elevator.

- d. Visible emissions of fugitive dust (from areas other than the enclosures for the rotary drum and the hot mix asphalt elevator) shall be less than or equal to 10 per cent opacity, as a 3-minute average.
- e. Visible particulate emissions from the stack shall not exceed 10 per cent opacity, as a 3-minute average.
- f. All number 2 and on-spec used oil burned in this emission unit shall have a sulfur content equal to or less than 0.5 per cent, by weight.
- g. All used oil burned in this emissions unit shall be “on-specification” (on-spec) oil and must meet the used oil fuel specifications contained in OAC rule 3745-279-11, which restricts the used oil to the following limitations:

| Contaminant/Property | Allowable Specifications |
|-----------------------------|---------------------------------|
| arsenic | 5 ppm, maximum |
| cadmium | 2 ppm, maximum |
| chromium | 10 ppm, maximum |
| total halogens | 4,000 ppm maximum |
| lead | 100 ppm, maximum |
| flash point | 100°F, minimum |

and shall also not exceed the following maximum PCB and mercury limitations nor fall below the following heating value:

| | |
|--------------|-----------------------------|
| heat content | 135,000 Btu/gallon, minimum |
| PCB's | 50 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, 3rd (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.

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

- h. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC paragraph 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC paragraph 3745-31-05(A)(3) in this permit-to-install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) The permittee may not receive or burn any used oil which does not meet the specifications listed in a)(2)g` of this permit without first obtaining a permit-to-install that authorizes the burning of off-specification used oil. The burning of off-specification used oil is subject to OAC rule 3745-279-60 through 67.

(2) The permittee has requested a federally enforceable limitation on asphalt produced in order to restrict the federally enforceable potential to emit. The amount of asphalt produced is restricted in two ways:

a. the total amount of asphalt produced using any fuel is limited to 600,000 tons per rolling 12-month period. To ensure enforceability during the first 12 calendar months of operation following the initial startup of this emissions unit, the permittee shall not exceed the production levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Production (Tons) |
|----------|--|
| 1 | 100,000 |
| 1-2 | 200,000 |
| 1-3 | 300,000 |
| 1-4 | 400,000 |
| 1-5 | 500,000 |
| 1-6 | 600,000 |
| 1-7 | 600,000 |
| 1-8 | 600,000 |
| 1-9 | 600,000 |
| 1-10 | 600,000 |
| 1-11 | 600,000 |
| 1-12 | 600,000 |

b. The amount of asphalt produced and the SO₂ emissions are restricted by the following equation:

$$((0.0034)*(a) + (0.066)*(b) + (0.1725)*(c))/2000 \leq 51.75 \text{ tons per rolling, 12-month period}$$

Where:

a = tons asphalt produced with natural gas per rolling, 12-month period;

b = tons asphalt produced with number 2 fuel oil and/or used oil per rolling, 12-month period;

c = tons of slag employed in the aggregate mix per rolling, 12-month period.

* = factors may be revised based upon Ohio EPA validated emissions testing and shall be revised if emissions testing results demonstrate higher emissions

- (3) The permittee shall operate and maintain the fuel burner in accordance with the manufacturer's recommendations to ensure efficient combustion of the fuel(s) and to ensure compliance with the applicable emission limitations for VOC, CO and NOx. The permittee shall submit a copy of all *Burner Tuning Reporting Form for Asphalt Concrete Plants* forms produced during the past calendar year to the appropriate Ohio EPA District Office or local air agency responsible for the permitting of the facility with the PER.
- (4) The permittee may substitute reclaimed asphalt pavement (RAP) and/or asphalt shingles in amounts not to exceed 50 percent of each asphalt mix produced. The permittee may not substitute other raw materials not specifically identified in the PTIO application submitted on May 4th, 2010 without prior approval from Ohio EPA.

The permittee may substitute slag or sand slag produced from blast, basic oxygen, and open hearth furnaces into the asphalt mix, as described in OAC rule 3745-51-04(B)(7). Slag produced from other sources, such as electric arc furnaces, must be evaluated in accordance with OAC rule 3745-52-11. If determined to be hazardous waste, the slag must be managed in accordance with applicable regulations in OAC chapter 3745-266, recyclable materials used in a manner constituting disposal.

Asphalt shingles removed from buildings (tear-off material) may be used but only if 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 supplier 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.

- (5) The permittee shall only burn natural gas, number 2 fuel oil and/or on-spec used oil in this emissions unit. In order to use a fuel on an ongoing basis, the permittee shall complete the emissions testing for that fuel per paragraph f)(1).

- (6) The emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation. The discharge of the baghouse(i.e., the baghouse stack) shall be a minimum of 35 feet above the ground.
- (7) The pressure drop across the baghouse shall be maintained within the range of 1 to 8 inches of water while the emissions unit is in operation.
- (8) The sulfur content in the slag used in the aggregate mix shall not exceed 1.75% sulfur, by weight. The permittee may use slag with a higher sulfur content than 1.75% if prior approval is granted by Ohio EPA and stack testing is performed to demonstrate the sulfur dioxide emission limits in b)(1) are not exceeded.
- (9) The permittee shall operate this emissions unit at a process weight rate of 300 tons per hour or less while employing slag.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall receive and maintain the chemical analyses from the supplier/marketer for each shipment of used oil burned in this emissions unit, which shall contain the following information:
 - a. the date the used oil was received at the facility;
 - b. the name, address, and U.S. EPA identification number (if applicable) of the generator, transporter, processor/re-finer, supplier, and/or marketer;
 - c. the results of the chemical analyses demonstrating the used oil meets the standards in OAC rule 3745-279-11, including:
 - 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. the analysis demonstrating that the used oil has a total halogen content below 1,000 ppm, or below 4,000 ppm with the demonstration for the rebuttal of the presumption that the oil is hazardous waste or has been mixed with hazardous waste, as described in OAC paragraph 3745-279-63(B); and
 - e. the results of the analyses demonstrating that the used oil meets the heating value and mercury and PCB limitations contained in this permit.

The metal contents for arsenic, cadmium, chromium, lead, and mercury shall be analyzed using a "Totals Analysis" or Total Metals" testing methodology,

Chapter Two of "Testing Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)" should be referenced to for selecting appropriate test methods for the used oil analyses. Under no circumstances shall the metal contents of the used oil be analyzed using "TCLP", "EP-TOC", or other similar testing procedures, since these tests were developed to gauge leachate mobility from a landfill, of which is an irrelevant property of the used oil burned for energy recovery.

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 Hazardous Waste Management and/or the Division of Air Pollution Control (the appropriate Ohio EPA District Office or local air agency) 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.

- (2) The permittee shall maintain monthly records of the following information:
- a. the total asphalt production for each month;
 - b. the total asphalt produced for each fuel type for each month;
 - c. for the first 12 calendar months following the initial startup of this emissions unit, the cumulative asphalt production and asphalt production by fuel type, calculated by adding the current month's asphalt production to the asphalt production for each calendar month since the startup of emissions unit P901;
 - d. beginning after the first 12 calendar months following the startup of this emissions unit, the rolling, 12 month summation of the total asphalt production and the asphalt production by fuel type, calculated by adding the current month's asphalt production to the asphalt production for the preceding eleven calendar months;
 - e. the rolling, 12-month summation of the PE, SO₂, NO_x, VOC and CO emissions; and
 - f. the maximum percentage of RAP used for any mix type.
 - g. the total amount, in tons, of slag employed for each month;
 - h. the rolling, 12 month summation of the total slag employed in the mix; and
 - i. the rolling ,12 month summation of the total asphalt production; and the asphalt production by fuel type.

* The rolling, 12-month summation of SO₂ shall be calculated by using the equation in c)(2)b

- (3) For each shipment of number 2 fuel oil,, and 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 permittees or oil supplier's analyses for sulfur content and heat content.
- (4) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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 color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
- (5) The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the enclosures for the rotary drum and the hot mix asphalt elevator serving this emissions unit. If visible emissions are observed, the permittee shall note the following in the operation log:
 - a. the location and color of the visible emissions;
 - b. the cause of the visible particulate emissions;
 - c. the total duration of any visible emissions incident; and any corrective actions taken to minimize or eliminate the visible emissions.
- (6) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust (from areas other than the enclosures for the rotary drum 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 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 emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item d above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit).

With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (7) While performing each burner tuning, the permittee shall record the results of the burner tuning using the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form (as found in g)(3)). An alternative form may be used upon approval of the Ohio EPA, Central District Office.
- (8) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the pressure drop deviates from the range established in c(7), the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range on the pressure drop across the baghouse specified in c(7) is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA, Central District Office. The permittee may request revisions to the permitted range for the pressure drop based upon information obtained during future testing that demonstrates compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (9) 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 permittees to apply for and obtain a new or modified permit to install 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 to install.
- (10) The permittee shall maintain daily records of the following information:
- a. the amount, in tons, of slag used, furnace type that produced the slag, and type (grade) of slag employed;
 - b. the maximum amount, in percent, of RAP and/or shingles used in any mix.
- (11) For each day during which the permittee uses any raw material that is not specifically identified in the PTIO application submitted on May 4, 2010 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.
- (12) The permittee shall maintain documentation verifying that any shingles employed do not contain asbestos as described in c)(4).
- (13) The permittee shall submit and receive approval from Ohio EPA for a slag sampling and testing plan prior to using slag. In the slag sampling plan, the permittee shall commit to demonstrating that the sulfur content of the slag does not exceed the operational restriction of 1.75% found in c)(8).
- (14) The permittee shall maintain daily records of the following information for any days during which slag is employed:
- a. the amount, in tons, of asphalt produced;

- b. the average process weight rate.
 - c. type of fuel employed
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the Potential to Emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. all exceedances of the rolling, 12-month asphalt production limitation;
 - ii. all exceedances of the slag operational restriction of 1.75% sulfur content , as listed in c)(8) ;
 - iii. all exceedances of the rolling, 12-month total PE, SO₂, NO_x, VOC, and CO emission limitations; and
 - iv. all exceedances of the fuel sulfur content limitations; as listed in b)(2)f.
 - 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 electronically through Ohio EPA Air Services 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 Ohio EPA, Central District Office.
 - (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.
 - (3) The permittee shall identify in a semi-annual deviation report the following information concerning the quality of used oil burned in this emissions unit:
 - a. any exceedance of the used oil standards in OAC rule 3745-279-11;

- b. 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;
- c. any exceedance of the limitations for mercury and/or PCBs; and
- d. any deviation from the minimum heat content of 135,000 Btu/gallon.

The semi-annual reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering August to December) and July 31 (covering January to July), unless an alternative schedule has been established and approved by the Ohio EPA, Central District Office . If one of the dates above coincides with the PER submittal, that semi-annual report may be included in the PER submittal.

f) Testing Requirements

- (1) Compliance with the emission limitations in section a)(1) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitations: CO emissions from burning on-spec used oil, number 2 fuel oil, number 4 fuel oil or natural gas shall not exceed 120.0 pounds per hour. NO_x emissions from burning on-spec used oil or number 2 fuel oil shall not exceed 40.0 pounds per hour. NO_x emissions from burning only natural gas shall not exceed 36.0 pounds per hour. SO₂ emissions from burning on-spec used oil or number 2 fuel oil shall not exceed 48.0 pounds per hour. Sulfur dioxide (SO₂) emissions while burning natural gas shall not exceed 3.3 pounds per hour. SO₂ emissions while burning any permitted fuel and employing slag in the mix shall not exceed 51.75 pounds per hour. VOC emissions from burning on-spec used oil, number 2 fuel oil, or natural gas shall not exceed 42.0 pounds per hour. Particulate emissions from the stack shall not exceed 0.030 gr/dscf.
 - b. Applicable Compliance Method: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - i. The emission testing shall be conducted within 60 days after achieving the maximum production rate for the primary fuel but no later than 120 days after initial startup of the emissions unit. Emissions testing for secondary fuels shall be conducted within 60 days after the switch to the secondary fuel. Emissions testing for slag use in the mix shall be conducted within 60 days after initially employing slag if slag was not used during the initial test for the permit cycle. If sand slag is used, emissions testing for sand slag use in the mix shall be conducted within 60 days after initially employing sand slag if sand slag is used after the initial testing for the permit cycle. For purposes of this permit, secondary fuels shall be fuels used after the initial emissions test for this permit cycle.

- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE, VOC, CO, NO_x, and SO₂, and the visible particulate emissions limits for PE for the primary fuel and slag use, if applicable. Prior to secondary fuel or slag use emissions testing, the permittee shall consult the appropriate Ohio EPA District Office or local air agency to determine which pollutants should be tested.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) for:

PE, Methods 1-5 of 40 CFR Part 60, Appendix A.

NO_x, Methods 1-4 and 7 or 7E of 40 CFR Part 60, Appendix A.

SO₂, Methods 1-4 and 6 or 6C of 40 CFR Part 60, Appendix A

CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A

VOC, Methods 1-4 and 25 and/or 18 of 40 CFR Part 60, Appendix A

The VOC pounds per hour emission rate observed during the emissions test shall be calculated in accordance with OAC paragraph 3745-21-10(C)(7) where the average molecular weight of the VOC emissions equals 16. i.e., the VOC as carbon emission rate observed during testing shall be converted to the appropriate units by multiplying the VOC as carbon emission rate observed during testing by 16 and dividing by 12.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- iv. The test(s) shall be conducted while this emissions unit is operating at or near its maximum capacity and burning natural gas, number 2 fuel oil or on-spec used oil for PE, VOC, CO, NO_x, and SO₂ and employing RAP to verify VOC emissions, unless otherwise specified or approved by the a Ohio EPA, Central District Office.

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 emission test(s).

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.

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.

- c. Emission Limitation: PE emissions shall not exceed 12.93 tons per rolling 12-month period.

Applicable Compliance Method: Compliance shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of PE per ton of asphalt produced for each fuel, by the actual rolling 12 month summation of asphalt produced for each fuel, in tons per rolling 12-month period (as derived from the records required by d)(2)), summing the results for all fuels, and dividing by 2000.

- d. Emission Limitation: VOC emissions shall not exceed 42.0 tons per rolling 12-month period.

Applicable Compliance Method: Compliance shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of VOC per ton of asphalt produced for each fuel, by the actual rolling 12 month summation of asphalt produced for each fuel, in tons per rolling 12-month period (as derived from the records required by d)(2)), summing the results for all fuels, and dividing by 2000.

- e. Emission Limitation: CO emissions shall not exceed 90.0 tons per rolling 12-month period.

Applicable Compliance Method: Compliance shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of CO per ton of asphalt produced for each fuel, by the actual rolling 12 month summation of asphalt produced for each fuel, in tons per rolling 12-month period (as derived from the records required by term and condition d)(2)), summing the results for all fuels, and dividing by 2000.

- f. Emission Limitation: SO₂ emissions shall not exceed 51.75 tons per rolling 12-month period.

Applicable Compliance Method: Compliance shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of SO₂ per ton of asphalt produced for each fuel, by the actual rolling 12 month summation of asphalt produced for each fuel, in tons per rolling 12-month period (as derived from the records required by d)(2)), summing the results for all fuels, and dividing by 2000.

- g. Emission Limitation: NO_x emissions shall not exceed 36.0 tons per rolling 12-month period.

Applicable Compliance Method: Compliance shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of NO_x per ton of asphalt produced for each fuel, by the actual rolling 12 month summation of asphalt produced for each fuel, in tons per rolling 12-month period (as derived from the records required by d)(2)), summing the results for all fuels, and dividing by 2000.

- h. Emission Limitation: There shall be no visible emissions of fugitive dust from the enclosures for the rotary drum and the hot mix asphalt elevator.

Applicable Compliance Method: Compliance with the limitations on visible emissions of fugitive dust found in a)(2) of this permit shall be demonstrated by the monitoring and record keeping in Section C.6. Upon request by the appropriate Ohio EPA District Office or local air agency, compliance shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR Part 60, Standards of Performance for New Stationary Sources, as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

- i. Emission Limitation: Visible emissions of fugitive dust (from areas other than the enclosures for the rotary drum and the hot mix asphalt elevator) shall be less than or equal to 10 per cent opacity, as a 3-minute average.

Applicable Compliance Method: Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

- j. Emission Limitation: Visible particulate emissions from the stack shall not exceed 10 per cent opacity as a 3-minute average.

Applicable Compliance Method: Compliance shall be determined using Method 9 as set forth in 40 CFR Part 60 Appendix A, as such appendix existed on July 1, 2002 and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

- k. Emission Limitation: Emissions of fugitive dust associated with the cold aggregate, sand and RAP loading, and the cold aggregate, sand and RAP transfer operations shall not exceed 3.72 tons of PE per rolling 12-month period. (AP-42 5th Edition, Table 11.12-2(10/01) and 11.1.2.5 (12/00))

Applicable Compliance Method: Compliance shall be assumed based upon the following worst case calculations:



Fugitives emissions from the cold end are calculated as follows

Hopper loading:

$$600000 \text{ tons of material/year} \times 0.0051 \text{ lb PE/ton of material} = 3060 \text{ lbs PE/yr}$$

Aggregate transfer:

$$562500 \text{ tons of aggregate/year} \times 0.0069 \text{ lb PE/ton of aggregate} = 3881 \text{ lb PE/yr}$$

Sand transfer:

$$240,000 \text{ tons of sand/year} \times 0.0021 \text{ lb PE/ton of sand} = 504 \text{ lb PE/yr}$$

The sum of the above is 7445 lb PE/yr X 1 ton/2000 lbs = 3.72 tons of PE

I. Asphalt Load out and Silo Filling Emissions

Emissions from load out operations shall not exceed 0.41 ton CO per rolling 12-month period, 0.16 ton PE per rolling 12-month period and 1.16 tons of OC per rolling 12-month period.

Emissions from silo filling operations shall not exceed 0.35 ton CO per rolling 12-month period, 0.18 ton PE per rolling 12-month period and 3.60 tons OC per rolling 12-month period.

Emissions from asphalt load out and silo filling operations are calculated as follows:

Asphalt plant silo filling and plant load out emissions from AP-42, Table 11.1-14 dated 3/2004

Known:

$$V = -0.5 \text{ Asphalt volatility factor (default)} \quad T = 325 \text{ HMA mix temp (F)}$$

For silo filling, 1.4 per cent of TOC is not VOC AP-42 Table 11.1-16 dated 3/2004

For plant load out, 7.3 per cent of TOC is not VOC AP-42 Table 11.1-16 dated 3/2004

| Activity | Pollutant | Predictive Emission Factor Equation, lb/ton |
|--------------|-----------|--|
| Silo filling | PE | $EF=0.000332+0.00105(-V)e^{((0.0251)(T+460)-20.43)}$ |
| Load out | PE | $EF=0.000181+0.00141(-V)e^{((0.0251)(T+460)-20.43)}$ |
| Silo filling | VOC | $EF= [0.0504(-V)e^{((0.0251)(T+460)-20.43)}] \times (1-$ |

| | | |
|--------------|-----|---|
| | | 0.014) |
| Load out | VOC | $EF = [0.0172(-V)e^{((0.0251)(T+460)-20.43)}] \times (1 - 0.073)$ |
| Silo filling | CO | $EF = 0.00488(-V)e^{((0.0251)(T+460)-20.43)}$ |
| Load out | CO | $EF = 0.00558(-V)e^{((0.0251)(T+460)-20.43)}$ |

Based on the above information, the emission factors and emissions are as follows:

| Activity | Pollutant | lb/ton | tons/yr (at 600,000 tons/yr production) |
|--------------|-----------|-----------------------|---|
| Silo filling | PE | 5.86×10^{-4} | 0.18 |
| Load out | PE | 5.22×10^{-4} | 0.16 |
| Silo filling | VOC | 1.20×10^{-2} | 3.60 |
| Load out | VOC | 3.86×10^{-3} | 1.16 |
| Silo filling | CO | 1.18×10^{-3} | 0.35 |
| Load out | CO | 1.35×10^{-3} | 0.41 |

(2) Burner Tuning

a. Introduction

The permittee is required to conduct periodic tuning of the asphalt plant burner. The purpose of this tuning is to ensure that the burner is adjusted properly so that air pollution emissions remain in compliance with allowable emissions rates and are minimized.

b. Qualifications for Burner Tuning

Technicians who conduct the burner tuning must be qualified to perform the expected tasks. The permittee is required to provide training to the technicians who perform the burner tuning procedure. Technicians who are qualified shall, at a minimum, have passed manufacturer’s training concerning burner tuning, or have been trained by someone who has completed the manufacturer’s training concerning burner tuning.

c. Portable Monitor Requirements

The permittee shall properly operate and maintain portable device(s) to monitor the concentration of NOx, O₂ 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 permittee shall maintain records of each portable monitoring device’s calibration.

d. Burner Tuning Procedure

The first steps concerning burner tuning involve setting the pollutant baseline levels (concentrations) utilizing the portable monitor. These baselines shall be set during the initial U.S. EPA approved emissions testing that demonstrated the emissions unit was in compliance with all applicable emissions limitations as described in f)(1). The baselines shall be determined for NO_x, and CO. Sampling should measure the exhaust gas values exiting the dryer or the baghouse. The duration of each sample shall follow the portable monitor manufacturer's recommendations. Record these values on the Burner Tuning Reporting Form for Asphalt Concrete Plants form (as found in g)(3)) in the "Recent Stack Test Basis Values" column.

Once the pollutant baseline levels are set, the burner shall be next tuned based on the frequency described in f)(1). The general procedure for tuning the burner involves the following steps:

- i. Review the plant operations to ensure the plant is operating normally.
- 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 O₂, NO_x, and CO. These measurements shall be taken at the same location as the location where the baseline samples were taken. Record the values in the "Pre Tuning" results column on the Burner Tuning Reporting Form for Asphalt Concrete Plants form.
- iv. Compare the measured stack exhaust gas values with the pollutant baseline values. If all of the measured stack exhaust gas values are equal to or less than 115 per cent of the pollutant baseline values, then it is not necessary to tune the burner. Go on to Section v. below.

The permittee shall have the burners tuned within two calendar weeks of any measured stack exhaust values greater than 115 per cent of the baseline values. Make any necessary adjustments and repairs. Repeat Sections iii. and iv. until the measured stack exhaust gas values are equal to or less than 115 per cent of the pollutant baseline values.

- v. Once all of the measured stack exhaust gas values are within the 115 per cent of the pollutant baseline values, record the measured stack exhaust gas values in the "Post Tuning" results column on the Burner Tuning Reporting Form for Asphalt Concrete Plants form.
- vi. By January 31 of each year, submit a copy of all Burner Tuning Reporting Form for Asphalt Concrete Plants forms produced during the past

calendar year to the appropriate Ohio EPA District Office or local air agency responsible for the permitting of the facility.

e. Burner Tuning Frequency

The permittee shall conduct the burner tuning procedure within 20 production days after commencement of the production season in the State of Ohio. The permittee shall conduct another burner tuning procedure within 10 production days before or after June 1st of each year and within 10 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 tuning is not required if the production season ends prior to the associated tuning due date. If the baseline level testing or the initial season tuning is done within 30 days prior to June 1 or September 1, the tuning associated with that due date is not required.

- (2) In addition to the burner tuning procedure required above, the permittee shall conduct the burner tuning procedure within 20 production days from the date the facility switches to a fuel that is different than the fuel burned during the initial emissions tests that establish the pollutant baseline levels or the fuel burned during the most recent burner tuning procedure, whichever is later.

g) Miscellaneous Requirements

(1) Relocation of Portable Sources

- a. Pursuant to OAC paragraph 3745-31-03(A)(1)(p)(i), the permittee of a portable or mobile emissions unit may relocate within the State of Ohio without first obtaining a permit-to-install (PTI) providing the following criteria are met:
- i. the portable emissions unit is equipped with the best available technology for such portable emissions unit;
 - ii. the portable emissions unit is operating pursuant to a currently effective permit-to-install, permit to operate (PTO), or registration status;
 - iii. the applicant has provided proper notice of intent to relocate the portable emissions unit to the appropriate Ohio EPA District Office or local air agency responsible for the permits for the source and the appropriate Ohio EPA District Office or local air agency having jurisdiction over the new site, within a minimum of 30 days prior to the scheduled relocation; and
 - iv. in the appropriate Ohio EPA District Office or local air agency responsible for the permits for the source and the appropriate Ohio EPA District Office or local air agency having jurisdiction over the new site's judgement, the proposed site is acceptable under OAC rule 3745-15-07.

- b. In the alternative, pursuant to OAC paragraph 3745-31-03(A)(1)(p)(ii), the permittee of a portable or mobile emissions unit may relocate within the State of Ohio without first obtaining a PTI, providing the following criteria of OAC paragraph 3745-31-05(E) are met:
- i. the portable emissions unit permittee possesses an Ohio EPA PTI, PTO or registration status;
 - ii. the portable emissions unit is equipped with best available technology;
 - iii. the portable emissions unit owner has identified the proposed site to Ohio EPA;
 - iv. Ohio EPA has determined that the portable emissions unit, at the proposed site, will have an acceptable environmental impact;
 - v. a public notice, consistent with OAC Chapter 3745-47, is published in the county where the proposed site is located;
 - vi. the owner of the proposed site has provided the portable emissions unit owner with approval or equivalent declaration that it is acceptable to the site owner to move the portable emissions unit to this proposed site; and
 - vii. the portable emissions unit owner has provided Ohio EPA with 15 days written notice of the relocation.

Any site approvals issued by the Ohio EPA, pursuant to OAC paragraph 3745-31-03(A)(1)(p)(ii), shall be valid for no longer than 3 years and are subject to renewal.

In order for the (the permitting Ohio EPA District Office or local air agency) and the appropriate field office having jurisdiction over the new site to determine compliance with all of the above criteria, the permittee of the portable or mobile emissions unit must file a "Notice of Intent to Relocate", within the specified time frame (30 or 15 days) prior to the relocation of the emissions unit with the appropriate Ohio EPA District Office or local air agency responsible for the permits for the source and the appropriate Ohio EPA District Office or local air agency having jurisdiction over the new site. Upon receipt of the notice, the appropriate Ohio EPA District Office or local air agency responsible for the permits for the source, and/or appropriate Ohio EPA District Office or local air agency having jurisdiction over the new site, will evaluate the request in accordance with the above criteria.

Failure to submit said notification and to receive Ohio EPA approval prior to relocation of the emissions unit may result in fines and civil penalties.

- c. Pursuant to OAC paragraph 3745-31-05(F), the Director may modify the site approval to add or delete certain portable sources or add or delete certain terms and conditions as appropriate.

- (2) The following source is subject to the applicable provision of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

| Source Number | Source Description | NSPS Regulation (Subpart) |
|---------------|--------------------------|---------------------------|
| P901 | 400 ton/hr asphalt plant | Subpart I |

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a. Construction date (no later than 30 days after such date);
- b. Actual start-up date (within 15 days after such date); and
- c. Date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to the appropriate Ohio EPA District Office or local air agency responsible for the permitting of the facility.

- (3) Burner Tuning Form (See next page)



| BURNER TUNING REPORTING FORM FOR ASPHALT CONCRETE PLANTS | |
|--|--|
| Facility ID: | 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 tuning: | Name of company performing emission monitoring: |
| Type of plant (ie: batch, drum mix, etc.): | Calibration date for analyzers: |

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

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

Tuning Results:

| Parameter | Recent Stack Test Pollutant Baseline Levels ¹ | Results | |
|--|--|------------|--------------------------|
| | | Pre Tuning | Post Tuning ³ |
| 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) ² | | | |
| NOx concentrations (ppm) ² | | | |
| Oxygen concentrations (per cent) ² | | | |
| Asphalt Production (tons/hr) | | | |

¹These values are based on the results of the most recent Ohio EPA approved emissions test.

² Specify whether on a dry or wet basis.

³ 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 manufacturers 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.

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