



State of Ohio Environmental Protection Agency

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Columbus, Ohio 43215

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www.epa.state.oh.us

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P.O. Box 1049  
Columbus, OH 43216-1049

3/10/2009

BETH MOWREY  
ALLIED CORPORATION PLANT 76  
PO BOX 266  
THORNVILLE, OH 43076

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 0664005005  
Permit Number: P0104310  
Permit Type: OAC Chapter 3745-31 Modification  
County: Cuyahoga

Certified Mail

Yes	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR
No	CEMS
No	MACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
Yes	MODELING SUBMITTED

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.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc), from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

If you have any questions regarding this permit, please contact the Cleveland Division of Air Quality. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc).

Sincerely,

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

Cc: CDAQ

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**FINAL**

**Air Pollution Permit-to-Install and Operate  
for  
ALLIED CORPORATION PLANT 76**

Facility ID: 0664005005  
Permit Number: P0104310  
Permit Type: OAC Chapter 3745-31 Modification  
Issued: 3/10/2009  
Effective: 3/10/2009  
Expiration: 3/10/2014





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Air Pollution Permit-to-Install and Operate**  
for  
**ALLIED CORPORATION PLANT 76**

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State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**  
**Permit Number:** P0104310  
**Facility ID:** 0664005005  
**Effective Date:** 3/10/2009

## Authorization

Facility ID: 0664005005  
Application Number(s): A0036549  
Permit Number: P0104310  
Permit Description: Chapter 31 modification of PTI 13-03947, issued 9/8/2005, to increase allowable emissions based on usage of slag and additional fuel types in a 600 TPH drum mix portable asphalt plant.  
Permit Type: OAC Chapter 3745-31 Modification  
Permit Fee: \$2,500.00  
Issue Date: 3/10/2009  
Effective Date: 3/10/2009  
Expiration Date: 3/10/2014  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

ALLIED CORPORATION PLANT 76  
2100 West Third St.  
Cleveland, OH 44113

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:

Cleveland Division of Air Quality  
2nd Floor  
75 Erieview Plaza  
Cleveland, OH 44114  
(216)664-2297

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: P0104310  
Permit Description: Chapter 31 modification of PTI 13-03947, issued 9/8/2005, to increase allowable emissions based on usage of slag and additional fuel types in a 600 TPH drum mix portable asphalt plant.

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>P902</b>
Company Equipment ID:	600 Ton/Hour Plant
Superseded Permit Number:	13-03947
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0104310

**Facility ID:** 0664005005

**Effective Date:** 3/10/2009

## **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 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 Cleveland Division of Air Quality 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.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0104310

**Facility ID:** 0664005005

**Effective Date:** 3/10/2009

## **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.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0104310

**Facility ID:** 0664005005

**Effective Date:** 3/10/2009

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



**1. P902, 600 TPH Portable Counter Flow Drum Asphalt Plant Operations, Property and/or Equipment Description:**

a) Portable drum mix asphalt plant with a maximum design capacity of 600 tons per hour, and controlled with a baghouse. This permit is a modification issued per OAC Chapter 3745-31 to PTI 13-03947, issued on 09/08/2005, permitting an increase in allowable emissions based on slag usage and the use of additional fuel types. 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)(12), d)(13), d)(14), and d)(15)

(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. b)(1)b, b)(2)e, b)(2)f, b)(2)g, c)(2), c)(7), d)(3), d)(6), d)(7), e)(1), f)(1)c, f)(1)d, f)(1)e, f)(1)f, and f)(1)g

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)	<p>Stack Emissions</p> <p>Nitrogen Oxides (NO<sub>x</sub>) emissions while burning natural gas shall not exceed 15.6 pounds per hour.</p> <p>NO<sub>x</sub> emissions while burning on-spec used oil or number 2 fuel oil shall not exceed 25.8 pounds per hour.</p> <p>NO<sub>x</sub> emissions while burning number 4, and number 6 fuel oil shall not exceed 33.0 pounds per hour.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Sulfur dioxide (SO<sub>2</sub>) emissions while burning natural gas shall not exceed 6.6 pounds per hour.</p> <p>SO<sub>2</sub> emissions while burning on-spec used oil or number 2 fuel oil shall not exceed 39.6 pounds per hour.</p> <p>SO<sub>2</sub> emissions while burning number 4 fuel oil shall not exceed 66 pounds per hour.</p> <p>SO<sub>2</sub> emissions while burning number 6 fuel oil shall not exceed 102 pounds per hour.</p> <p>See c)(10)</p> <p>SO<sub>2</sub> emissions while employing slag in the mix shall not exceed 0.53 pounds per ton of slag used in addition to the emissions generated while burning any permitted fuel.</p> <p>Carbon monoxide (CO) emissions while burning any approved fuel shall not exceed 78 pounds per hour.</p> <p>Volatile organic compound (VOC) emissions while burning any approved fuel shall not exceed 19.2 pounds per hour.</p> <p>Particulate emissions (PE) while burning any approved fuel shall not exceed 0.04 gr/dscf.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D), OAC rule 3745-21-08(B), and 40 CFR Part 60, Subpart I.</p> <p>See (2)a through (2)h.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05 (D) (Synthetic minor to avoid Title V permitting)	<p>Stack Emissions</p> <p>NO<sub>x</sub> emissions shall not exceed 32.8 tons per rolling, 12-month period.</p> <p>SO<sub>2</sub> emissions shall not exceed 65.63 tons per rolling, 12-month period.</p> <p>CO emissions shall not exceed 81.3 tons per rolling, 12-month period.</p> <p>VOC emissions shall not exceed 20.0 tons per rolling, 12-month period.</p> <p>PE shall not exceed 12.5 tons per rolling, 12-month period.</p> <p>Asphalt Load Out Emissions</p> <p>Emissions from load out operations shall not exceed 0.84 ton CO per rolling, 12-month period, 0.33 ton PE per rolling, 12-month period, and 2.4 tons of VOC per rolling, 12-month period.</p> <p>Asphalt Silo Filling Emissions</p> <p>Emissions from silo filling operations shall not exceed 0.74 ton CO per rolling, 12-month period, 0.37 ton PE per rolling, 12-month period, and 7.5 tons VOC per rolling, 12-month period.</p> <p>Cold End Fugitive Dust Emissions</p> <p>Emissions of fugitive dust associated with the cold aggregate, slag, sand and RAP loading, and the cold aggregate, slag, sand and RAP transfer operations shall not exceed 6.3 tons of fugitive PE per rolling, 12-month period.</p>
c.	OAC rule 3745-21-08(B)	See (2)i.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)(1) OAC rule 3745-17-07(B) OAC rule 3745-17-08 OAC rule 3745-18-06(E)	The emissions limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
e	OAC rule 3745-17-07(A)(1) 40 CFR Part 60, Subpart I	The emissions limitations specified by these rules are equivalent to the emissions 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. Visible emissions from any fugitive dust source shall be less than or equal to 10 percent opacity, as a 6-minute average.
- d. Visible emissions from the stack shall not exceed 20 percent opacity, as a 6-minute average.
- e. All number 2 and on-spec used oil burned in this emissions unit shall have a sulfur content equal to or less than 0.5 percent, by weight.
- f. All number 4 fuel oil burned in this emissions unit shall have a sulfur content equal to or less than 0.8 percent, by weight.
- g. All number 6 fuel oil burned in this emissions unit shall have a sulfur content equal to or less than 1.0 percent, by weight.
- h. Each shipment of oil burned in this emissions unit shall be ~~non-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:



<b>Contaminant/Property</b>	<b>Allowable Specifications</b>
Arsenic	5 ppm, maximum
Cadmium	2 ppm, maximum
Chromium	10 ppm, maximum
total halogens	less than 1,000 ppm; or less than 4,000 ppm 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 also shall not exceed the following mercury limitation nor fall below the following heating value:

heat content	135,000 Btu/gallon, minimum
PCB's	less than 2
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.

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

- i. 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 and operate.

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.

- j. 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.



c) Operational Restrictions

(1) 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.

(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 1,250,000 tons per rolling, 12-month period. The permittee has sufficient records to demonstrate compliance with the asphalt production limitations upon permit issuance.

b. The amount of asphalt produced and the SO<sub>2</sub> emissions are restricted by the following equation:

$$((0.011)*(a) + (0.066)*(b) + (0.11)*(c) + (0.17)*(d) + (0.53)(e))/2000 \leq 65.63 \text{ tons per rolling, 12-month period}$$

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 asphalt produced with number 4 fuel oil per rolling, 12-month period;

d = tons asphalt produced with number 6 fuel oil per rolling, 12-month period; and

e = 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 CO and NOx.

(4) The permittee may substitute reclaimed asphalt pavement (RAP) and/or asphalt shingles in amounts not to exceed 75 percent of each asphalt mix produced. The permittee may not substitute other raw materials not specifically identified in the PTIO application submitted on January 7, 2009 without prior approval from Ohio EPA.



The permittee may substitute 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 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, number 4 fuel oil, number 6 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 95 feet above the ground, prior to commencing use of slag, number 4 fuel oil, and/or number 6 fuel oil.
- (7) 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.
- (8) The amount of slag employed in the mix shall not exceed 3,500 tons per day.
- (9) 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.
- (10) The amount of asphalt produced and the average hourly SO<sub>2</sub> emissions are restricted by the following equation:

$$117 \text{ pounds per hour} \geq ((0.011)*(a) + (0.066)*(b) + (0.11)*(c) + (0.17)*(d) + (0.53)(e)) / (f)$$

Where:

a = tons asphalt produced with natural gas per day;

b = tons asphalt produced with number 2 fuel oil and/or used oil per day;



c = tons asphalt produced with number 4 fuel oil per day;

d = tons asphalt produced with number 6 fuel oil per day;

e = tons of slag employed in the aggregate mix per day; and

f = total number of operating hours per day.

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

- (11) The average hourly slag usage rate shall not exceed 475 tons per hour as determined by dividing the total daily slag usage by the number of operating hours 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 (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 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.

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

- (2) 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 total amount of asphalt produced for each fuel type, in tons;
  - c. the total number of operating hours and the number of operating hours while employing slag;
  - d. the average hourly SO<sub>2</sub> emissions calculated according to c)(10);
  - e. the average hourly slag usage rate calculated according to c)(11); and
  - f. the maximum amount, in percent, of RAP and/or shingles used in any mix.
- (3) The permittee shall maintain monthly records of the following information:
  - a. the total asphalt production, in tons, for each month;
  - b. the total asphalt produced, in tons, for each fuel type for each month;
  - c. the total amount, in tons, of slag employed for each month;
  - d. the rolling, 12 month summation of the total slag employed in the mix;
  - e. the rolling ,12 month summation of the total asphalt production; and the asphalt production by fuel type;
  - f. the rolling 12-month summation of the PE, SO<sub>2</sub>\*, NO<sub>x</sub>, VOC, and CO emissions; and

\* The rolling,12-month summation of SO<sub>2</sub> shall be calculated by using the equation in c)(2)b



- (4) For each day during which the permittee uses any raw material that is not specifically identified in the PTIO application submitted on January 7, 2009 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.
- (5) The permittee shall maintain documentation verifying that any shingles employed do not contain asbestos as described in c)(4).
- (6) For each shipment of number 2 fuel oil, number 4 fuel oil, number 6 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 permittee's or oil supplier's analyses for sulfur content and heat content.
- (7) 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)(7).
- (8) 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. 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.



- (9) 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 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 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.

- (10) 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)(7)). An alternative form may be used upon approval of the appropriate Ohio EPA District Office or local air agency. 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.
- (11) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse 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 baghouse on daily basis.
- (12) The PTIO application for this/these emissions unit(s), P902, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The AToxic Air Contaminant Statute<sup>e</sup>, ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed



for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists= (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists= (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., 24 hours per day and 7 days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Formaldehyde, and Toluene.

TLV (mg/m<sup>3</sup>): Formaldehyde 0.272 mg/m<sup>3</sup>, Toluene 75.36 mg/m<sup>3</sup>. Maximum Hourly Emission Rate (lbs/hr): Formaldehyde 1.86 lb/hr, Toluene 1.74 lb/hr

Predicted 1-Hour Maximum Ground-Level Concentration (µg/m<sup>3</sup>): Formaldehyde 2.62 µg/m<sup>3</sup>, Toluene 2.45 µg/m<sup>3</sup>.

MAGLC ( $\mu\text{g}/\text{m}^3$ ): Formaldehyde 6.47  $\mu\text{g}/\text{m}^3$ , Toluene 1,794  $\mu\text{g}/\text{m}^3$ .

The permittee, has demonstrated that emissions of Formaldehyde, and Toluene, from emissions unit(s) P902, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the AToxic Air Contaminant Statute<sup>®</sup>, ORC 3704.03(F).

- (13) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration<sup>®</sup>, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the AToxic Air Contaminant Statute<sup>®</sup> will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the AToxic Air Contaminant Statute<sup>®</sup>, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (14) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the AToxic Air Contaminant Statute<sup>®</sup>, ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s)



- modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the AToxic Air Contaminant Statute, ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (15) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- 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 restrictions; 1.75% sulfur content and 3,500 tons a day, as listed in c)(7), and c)(8), ;
      - iii. all exceedances of the rolling, 12-month total PE, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO emission limitations; and
      - iv. all exceedances of the fuel sulfur content limitations; 0.5%, 0.8%, 1.0%, as listed in b)(2)e through b)(2)g.
    - 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 Director (the appropriate District Office or local air agency).

- (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 Director (the appropriate District Office or local air agency). 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 b)(1) of these terms and conditions shall be determined in accordance with the following methods:



- a. Emission Limitations: NO<sub>x</sub> emissions while burning natural gas shall not exceed 15.6 pound per hour; NO<sub>x</sub> emissions while burning, on-spec used oil or number 2 shall not exceed 25.8 pounds per hour; NO<sub>x</sub> emissions while burning number 4, and number 6, fuel oil shall not exceed 33 pound per hour; SO<sub>2</sub> emissions while burning natural gas or propane shall not exceed 6.6 pound per hour; SO<sub>2</sub> emissions while burning on-spec used oil or number 2 fuel oil shall not exceed 39.6 pound per hour; SO<sub>2</sub> emissions while burning number 4 fuel oil shall not exceed 66 pound per hour; SO<sub>2</sub> emissions while burning number 6 fuel oil shall not exceed 102 pound per hour; SO<sub>2</sub> emissions while employing slag in the mix shall not exceed 0.53 pounds per ton of slag employed in addition to the emissions generated while burning any permitted fuel; CO emissions while burning any approved fuel shall not exceed 78 pound per hour; VOC emissions while burning any approved fuel shall not exceed 19.2 pound per hour; and PE while burning any approved fuel shall not exceed 0.04 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 120 days after the issuance of this permit or after beginning operation whichever date is later, approximately 2.5 years after permit issuance and within 6 months prior to permit renewal. Emissions testing for secondary fuels shall be conducted within 60 days after the switch to the secondary fuel. Emissions testing shall be necessary for each fuel type switch only once per permitting cycle. 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<sub>x</sub> and SO<sub>2</sub>, 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 and/or visible emission rate(s) for:

PE, Methods 1-5 and 9 of 40 CFR Part 60, Appendix A.

NO<sub>x</sub>, Methods 1-4 and 7 or 7E of 40 CFR Part 60, Appendix A.



SO<sub>2</sub>, 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, maximum slag usage rate, and burning natural gas, number 2 fuel oil, number 4 fuel oil, number 6 fuel oil, or on-spec used oil for PE, VOC, CO, NO<sub>x</sub> and SO<sub>2</sub>, and the visible particulate emissions limits for PE, and employing RAP to verify VOC emissions, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 appropriate Ohio EPA District Office or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.



- c. Emission Limitation: PE emissions shall not exceed 12.5 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)(3)), summing the results for all fuels, and dividing by 2,000.

- d. Emission Limitation: VOC emissions shall not exceed 20.0 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)(3)), summing the results for all fuels, and dividing by 2,000.

- e. Emission Limitation: CO emissions shall not exceed 81.3 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)(3)), summing the results for all fuels, and dividing by 2,000.

- f. Emission Limitation: SO<sub>2</sub> emissions shall not exceed 65.63 tons per rolling, 12-month period.

Applicable Compliance Method: Compliance shall be determined by calculating the emissions using the equation in c)(2)b (as derived from the records required by d)(3).

- g. Emission Limitation: NO<sub>x</sub> emissions shall not exceed 32.8 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<sub>x</sub> 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)(3)), summing the results for all fuels, and dividing by 2,000.



- h. Emission Limitation: Visible particulate emissions from any fugitive dust source shall be less than or equal to 10 percent opacity, as a 6-minute average.

Applicable Compliance Method: Visible particulate emissions shall be determined according to USEPA Method 9 as required in f)(1)b.

- i. Emission Limitation: Visible particulate emissions from the stack shall not exceed 20 percent opacity as a 6-minute average.

Applicable Compliance Method: Visible particulate emissions shall be determined according to USEPA Method 9 as required in f)(1)b.

- j. Emission Limitation: Emissions of fugitive dust associated with the cold aggregate, slag, sand and RAP loading, and the cold aggregate, slag, sand and RAP transfer operations shall not exceed 6.3 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:

Fugitive emissions from the cold end are calculated as follows:

Hopper loading:

$$1,250,000 \text{ tons of material/year} \times 0.0051 \text{ lb PE/ton of material} = 6375 \text{ lbs PE/yr}$$

Aggregate transfer:

$$750,000 \text{ tons of aggregate/year} \times 0.0069 \text{ lb PE/ton of aggregate} = 5175 \text{ lb PE/yr}$$

Sand transfer:

$$500,000 \text{ tons of sand/year} \times 0.0021 \text{ lb PE/ton of sand} = 1050 \text{ lb PE/yr}$$

The sum of the above is 12,600 lb PE/yr X 1 ton/2000 lbs = 6.3 tons of PE

- k. Emission Limitation: Asphalt Load out and Silo Filling Emissions

Emissions from load out operations shall not exceed 0.84 ton CO per rolling, 12-month period, 0.33 ton PE per rolling, 12-month period and 2.4 tons of VOC per rolling, 12-month period.

Emissions from silo filling operations shall not exceed 0.74 ton CO per rolling, 12-month period, 0.37 ton PE per rolling, 12-month period and 7.5 tons VOC per rolling, 12-month period.



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

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 Asphalt volatility factor (default)  
(default)

T = 325 HMA mix temp (F)

For silo filling, 1.4 per cent of TOC is not VOC  
3/2004

AP-42 Table 11.1-16 dated

For plant load out, 7.3 per cent of TOC is not VOC  
3/2004

AP-42 Table 11.1-16 dated

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 1,250,000 tons/yr production)
Silo filling	PE	$5.86 \times 10^{-4}$	0.37
Load out	PE	$5.22 \times 10^{-4}$	0.33
Silo filling	VOC	$1.20 \times 10^{-2}$	7.5
Load out	VOC	$3.86 \times 10^{-3}$	2.4
Silo filling	CO	$1.18 \times 10^{-3}$	0.74



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Load out	CO	$1.35 \times 10^{-3}$	0.84



(2) Burner Tuning

a. Introduction

The permittee shall submit a “burner tuning procedure” for this facility by April 1, of each year to Ohio EPA Central Office and the appropriate Ohio EPA District Office or local air agency responsible for the permitting of the facility. The burner tuning procedure shall contain the basic elements as described in the language below with the ability for the permittee to adjust the frequency of the burner tuning procedure depending upon the production of the plant. The submittal of the “burner tuning procedure” is independent of the PER submittal.

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 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 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<sub>x</sub>, 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)(7)) 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)(2)e. 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 O<sub>2</sub>, NO<sub>x</sub>, 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 percent 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 percent 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 percent of the pollutant baseline values.

- v. Once all of the measured stack exhaust gas values are within the 115 percent 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. Submit a copy of all *Burner Tuning Reporting Form(s) 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.
- 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.

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.

- (3) The metal contents for arsenic, cadmium, chromium, lead, and mercury shall be analyzed using a "Total Analysis" or "Total Metals" testing methodology. The metal contents shall not be analyzed using a leachate procedure such as the "Toxicity Characteristic Leaching Procedure" or "Extraction Procedure Toxicity Test". Chapter 2 of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846, 3<sup>rd</sup> Edition, most current update) shall be used for selecting the appropriate test methods for the used oil analyses.

g) Miscellaneous Requirements

- (1) At the discretion and following the approval of the director, the permittee may relocate the portable source within the State of Ohio without first obtaining a permit to install and operate (PTIO) providing the appropriate exemption requirements have been met. The director may issue a "Notice of Site Approval" for either of the following situations: the permittee notifies the director a minimum of 30 days prior to relocating pursuant to OAC rule 3745-31-03(A)(1)(p)(i); or the permittee identifies pre-disclosed location(s) that meet the criteria found in OAC rule 3745-31-05(H).
- (2) Pursuant to OAC rules 3745-31-03(A)(1)(p)(i), 3745-31-03(A)(1)(p)(ii), and 3745-31-05(H), the following criteria must be met for all portable facilities seeking approval for relocation:
  - a. the portable source must possess an issued permit to install (PTI) or permit to install and operate (PTIO) and demonstrate continuing compliance with any applicable best available technology determination and state and/or federal air pollution rule or law; and,
  - b. the portable source is operating pursuant to a currently effective PTI, PTIO and/or any applicable permit to operate (PTO) and demonstrates continuing compliance with the requirements of the permit(s).
- (3) In order to relocate a portable source in accordance with OAC rule 3745-31-03(A)(1)(p)(i) (i.e. the 30-day option), the following additional criteria must be met:
  - a. the permittee has provided proper notice of intent to relocate the portable source to the permitting District Office/Local air agency a minimum of thirty days prior to the scheduled relocation;



- b. the permitting District Office/Local air agency and the District Office/Local air agency having jurisdiction over the new site have determined that the emissions would not cause a nuisance in violation of OAC rule 3745-15-07, and that the relocation of the portable source would not result in the installation of a major stationary source or a modification of an existing major stationary source at the new site; and
- c. the director has issued a "Notice of Site Approval", stating that the proposed site is acceptable under OAC rule 3745-15-07, and that the relocation will not result in the installation or the modification of a major stationary source.

Using the 30-day option, the portable source may only be relocated upon receipt of the "Notice of Site Approval".

- (4) In order to relocate a portable source in accordance with OAC rules 3745-31-03(A)(1)(p)(ii) and 3745-31-05(H) (i.e. the 15-day option), the following additional criteria must be met:
  - a. the portable source owner has identified the proposed site(s) to the permitting District Office/Local air agency;
  - b. the owner of the proposed site(s) (if not the permittee) has provided the portable source owner with approval, or an equivalent declaration, that it is acceptable to move the portable source to the proposed site(s);
  - c. the permitting District Office/Local air agency and the District Office/Local air agency having jurisdiction over the new site have determined that the portable source will have an acceptable environmental impact at the proposed site(s);
  - d. a public notice, consistent with OAC Chapter 3745-47, has been published in the county where the proposed site(s) is/are located;
  - e. the permittee has provided the Ohio EPA with a minimum of a 15-day written notice of the relocation.

Using the 15-day option, the portable source may only be relocated upon receipt of the "Notice of Site Approval", and following submittal of the 15-day written notice of the relocation. Any site approvals issued pursuant to OAC rule 3745-31-05(H) shall be valid for no longer than 3 years and are subject to renewal. Also, pursuant to OAC rule 3745-31-07(D)(2), the director may modify the site approval to add or delete certain portable sources or add or delete certain terms and conditions as appropriate.

- (5) Failure to submit said notification or failure to receive Ohio EPA approval prior to relocation of the portable source may result in fines and civil penalties.
- (6) When a portable source is co-located at a stationary source, or is co-located with multiple portable sources, potential emissions from the portable source may be required



to be combined for facility potential to emit calculations for Title V and PSD applicability. If the relocation of the portable source would result in the installation of a major source or the modification of a major source, as defined in OAC rule 3745-31-01 (LLL) and (JJJ), the permittee shall submit an application and obtain a PTI for the new location prior to moving the portable source. Relocation of any portable source that results in the creation of a major source, as defined in OAC rule 3745- 77-01, must also meet all applicable requirements under the Title V program contained in OAC Chapter 3745-77, which may include the requirement to apply for a Title V permit.

(7) 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 <sup>1</sup>	Results	
		Pre Tuning	Post Tuning <sup>3</sup>
Fuel flow to the burner (gallon/hr) (for fuel oil and on-spec used oil)			
Fuel pressure (psi)			



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For burners that require compressed air for proper operation, pressure at the burner (psi)			
Carbon Monoxide (CO) concentrations (ppm) <sup>2</sup>			
NOx concentrations (ppm) <sup>2</sup>			
Oxygen concentrations (per cent) <sup>2</sup>			
Asphalt Production (tons/hr)			

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

<sup>2</sup> Specify whether on a dry or wet basis.

<sup>3</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 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: