

7/14/2010

Robert Boehk  
Erie Materials  
PO Box 2308  
Sandusky, OH 44870

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 0322020256  
Permit Number: P0105371  
Permit Type: OAC Chapter 3745-31 Modification  
County: Erie

Certified Mail

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
Yes	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](http://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, Northwest District Office at (419)352-8461 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](http://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-NWDO





## Response to Comments

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

Facility ID:	0322020256
Facility Name:	Erie Materials
Facility Description:	Crushed and Broken Limestone
Facility Address:	9220 Portland Road Sandusky, OH 44870 Erie County
Permit #:	P0105371, 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 Sandusky Register on 03/09/2010. The comment period ended on 04/19/2010.	
Hearing date (if held)	04/14/2010
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: **Health Concerns**

- a. Comment: **Several articles were submitted as evidence regarding the levels and health risks of air toxic contaminants and Hazardous Air Pollutants (HAP's) emitted from asphalt plant operations. The articles included research done by Blue Ridge Environmental Defense League (BREDL) and a significant amount of information pertaining to Polycyclic Aromatic Hydrocarbons (PAH's).**

Response: The levels of individual air toxic contaminants and individual/combined HAP emissions emitted from the asphalt plant were determined using a U.S. EPA document titled "AP-42, Compilation of Air Pollution Emission Factors". The amount of air toxics and HAPs emitted do not exceed any threshold levels that would require specific action to address such emission levels. Despite the absence of any requirement to address air toxics and HAPs, Ohio EPA did perform an analysis for two compounds which would have the highest emission rate for air toxics from the asphalt plant. The results of the analysis indicated that the emission levels were significantly below acceptable concentrations.



- b. Comment: **“All we know is that it is not just an odor problem. It gives you headaches and makes you sick because it is very bad. And you see a lot of that on a regular basis when stuff like that happens, so it needs to be addressed before any permit,...is issued” – regarding photographs taken by the individual indicating a plume from the baghouse stack.**

Response: On February 26, 2003, the Agency for Toxic Substances and Disease Registry (ATSDR) was petitioned by citizens to evaluate the health impacts from air pollution from asphalt and limestone quarry activities in Erie County. The study incorporated the operations from Hanson Midwest Aggregates, Erie Materials, Inc. and Gerken Materials, Inc. At the request of ATSDR, the Ohio EPA conducted air sampling for particulate matter and volatile organic compound emissions in the immediate area. The results of this testing indicated that all particulate matter concentrations were below National Ambient Air Quality Standards (NAAQS) and no time-averaged volatile organic compound concentrations reported were present at levels of health concern.

- c. Comment: **Newspaper article from *The Morning Journal*, titled “Some believe air test results near quarry were flawed”, dated December 30, 2005 was submitted as a comment concerning the ATSDR study performed.**

Response: Ohio EPA is of the understanding that despite the submittal of objections to challenge the results of the ATSDR study, the conclusions of the study are still considered valid.

- d. Comment: **Anticipated mercury emissions from the asphalt operations.**

Response: The anticipated mercury emissions from the asphalt process were determined using a U.S. EPA document titled “AP-42, Compilation of Air Pollution Emission Factors”. The amount of mercury emitted does not exceed any threshold levels that would require specific action to address such emission levels. The permit does address mercury directly by limiting the amount that can be contained within any “on-spec” used oil used. Additionally the final issued permit has been revised to include stack testing if mercury is detected in any “on-spec” oil analysis performed.

2. Topic: **Permit specific comments**

- a. Comment: **Articles were submitted as evidence with references that this permit action will allow for increased production from the asphalt plant.**

Response: The permit action does not allow for any increased production from the facility. The asphalt plant capacity will remain at a maximum of 400 tons per hour.

- b. Comment: **Are the new emission limits consistent with sulfur dioxide emission increases found during 2008 stack testing done while using slag as an aggregate material at similar facilities?**

Response: The sulfur dioxide emission limit and emission factor associated with slag usage in this permit are consistent with the results of numerous slag tests performed in 2008 at various existing asphalt plants. The permit also contains a term that allows revisions to the emission factor for sulfur dioxide while burning slag if future test data indicates it is necessary.

- c. Comment: **Would it be feasible to have direct testing and monitoring of mercury and PCB emissions to better ensure compliance with the ppm limitations presented in the permit?**

Response: A number of years ago when fuel burning sources began submitting applications that included used oil, Ohio EPA developed the standard term contained in this permit which is based on regulations that distinguish materials like used motor oil, from oils that might be contaminated or classified as hazardous waste. Used oils accepted for burning should not be contaminated with those listed substances to begin with, however testing of actual oil shipments is required through permit monitoring to provide verification. In general Ohio EPA is of the position that alternate stack/emissions testing would likely not provide better detection than monitoring for each oil shipment, the approach used in many Ohio permits. [Sources burning hazardous waste would likely have emissions testing requirements.]

Due to the unique situation and circumstances associated with the Erie Materials site and project the final issued permit will be revised to include direct stack testing for mercury and PCB emissions. As indicated in response 1.d. above, the final issued permit has been revised to include direct stack testing for mercury if mercury is detected in any "on-spec" oil analysis performed. Additionally the final issued permit will also be revised to include direct testing for PCBs if PCBs are detected in any "on-spec" oil analysis performed.

- d. Comment: **How long has the source been in violation of its emissions limits? Have violations occurred on a regular basis?**

Response: The source was first discovered to be in violation of permitted emission limits in October of 2001. The Ohio EPA has been taking appropriate actions since that time to address the violations at the facility. The actions taken have included adherence to U.S. EPA's "Guidance on the Appropriate Injunctive Relief for Violations of Major New Source Review Requirements (Memorandum)" dated 11-17-98. The latest actions have involved Ohio EPA taking enforcement action that resulted in a consent order, in which the company must perform a compliance demonstration in accordance with the requested limits of the most recent permit to install application.

In order to fulfill the requirements of the consent order, the facility conducted stack testing in August of 2009. The results of this test indicated emission levels greater than the requested allowable limits from the permit application and in violation of the consent order. The company has taken several corrective actions since the most recent stack testing and is required to conduct a compliance demonstration early into the 2010 asphalt season to determine the compliance status. It should be noted that Ohio EPA is of the position that the violations at the facility have not led any imminent threat to health or the environment.

- e. Comment: **Given the facility's emission history and plan to use slag, does probable cause of a 17-02 violation not exist?**

Response: It should first be noted that OAC rule 3745-17-02 was rescinded as of April 8, 2009. The violations at the facility have not involved emissions of particulate matter and as such the Ohio EPA does not see probable cause for violations of rescinded OAC rule 3745-17-02. Additionally Ohio EPA was involved in air sampling for a study conducted by the ASTDR and the results of the study did not present any information that would indicate any probable cause for violations of air quality standards for particulate matter (see response 1.b.).



- f. Comment: **The permit indicates that actual emissions of CO and OC (VOC) never exceeded major source thresholds, even though the Permit Strategy Write-up states that emissions exceeded 250 tpy during October 2001 testing?**

Response: The potential emissions of CO and VOC exceeded major PSD thresholds during the October 2001 testing, but the actual emissions from this source did not exceed these levels. This facility is a seasonal operation and the company did not have a permit in place that limited the annual production and resulting potential emissions. The company has since requested an annual production restriction in order to avoid major source thresholds.

- g. Comment: **How were the BACT- equivalent control rates determined?**

Response: Ohio EPA was involved in the development of a "General Permit" for asphalt plants at the time this permit action was being processed. As part of the development of the general permit a determination was made regarding "Best Available Technology" (BAT) requirements under OAC rule 3745-31-05(A)(3). Upon review of permitted asphalt emission levels across the state, cost effective evaluation for add-on control, etc., BAT was determined to be 0.10 pound of organic compounds and 0.15 pound of carbon monoxide per ton of asphalt produced. The BAT emission rates established for general permit purposes were further evaluated with consideration to the RACT/BACT/LAER Clearinghouse and were determined to be a BACT equivalent requirement.

- h. Comment: **How was the sulfur dioxide compliance equation determined?**

Response: The sulfur dioxide (SO<sub>2</sub>) compliance equation was developed as an restriction to limit sulfur dioxide emissions. The equation was developed by limiting sources of SO<sub>2</sub> emissions from asphalt plant operations which include the use of sulfur containing fuels and SO<sub>2</sub> from processing slag material. Emission factors associated with associated fuels and slag throughput were applied. The equation calculates emissions from SO<sub>2</sub> generating activities during a rolling 12-month period.

- i. Comment: **In light of the credible evidence rule and under the Testing Requirements of the permit, "compliance with the annual emission limitation shall be assumed" may not be appropriate. Suggest replacing with "it shall be rebuttable presumption that compliance with the annual emission limitation has been attained".**

Response: Ohio EPA had direct discussions with U.S. EPA regarding a resolution to the comment presented. As a result of those discussions the language in the permit will be revised to read "...compliance with the annual emission limitation shall also be demonstrated."

3. Topic: **Current Asphalt Technologies**

- a. Comment: **A significant amount of information was provided as testimony and evidence during the public hearing regarding a new asphalt technology known as "warm mix asphalt". Much of the information provided included specific operating conditions, benefits of the process, lower healthcare costs, less employee turnover, and specific locations where this technology has been used.**

Response: In this permitting instance air pollution control regulations require the application of “Best Available Control Technology” (BACT). BACT is determined by a five step “top-down” process as specified in U.S. EPA’s New Source Review Workshop Manual (Draft – October 1990). The first step is to identify all control technologies for the affected source. Innovative technologies are not required to be identified in the first step. Warm mix asphalt is considered an innovative technology at this time. The technology is not completely proven and the resulting product has not gained wide spread acceptance in commercial applications. Given the current stage of development regarding warm mix asphalt, the technology cannot be considered in determining the application of BACT for this source.

4. Topic: **Site Location**

- a. Comment: **The total emissions from both asphalt plants (Erie Materials, Inc. and Gerken Materials, Inc.) need to be considered together.**

Response: These two asphalt facilities are separate of one another and as such, the emissions have been evaluated separately. Air pollution rules and regulations are applied from a procedural standpoint to each facility separately as mentioned above. Air pollution rules and regulation are developed and inherently designed with consideration that multiple facilities may be located in close proximity. Additionally, ATSDR performed a study in the area which involved the two asphalt plants and the Hanson Midwest Aggregates quarry. The results of the study indicated that all particulate matter concentrations were below National Ambient Air Quality Standards (NAAQS) and no time-averaged volatile organic compound concentrations reported were present at levels of health concern (see response 1.b.).

5. Topic: **Unrelated Comments**

- a. Comment: **If draft permit becomes final, there must be three wells put in place to monitor underground water. (one at the site of the asphalt plants, one at site near Strecker Road #4, and one at discharge to Caswell ditch to Mills Creek).**

Response: As stated during the public meeting, this air pollution permit action cannot take into consideration groundwater or well water issues, including any flooding or ditch maintenance. Groundwater issues would need to be addressed to the Ohio EPA Division of Drinking and Groundwater. Water discharge issues to a receiving ditch would need to be addressed to the Ohio EPA Division of Surface Water. The appropriate Ohio EPA division can be contacted by calling 1-800-686-6930.

Well water issues would need to be referred to the Erie County Health Department which can be contacted by calling 1-888-399-6065.

- b. Comment: **Advantages of warm mix asphalt technology including lower healthcare costs, workers compensation costs and less employee turnover.**

Response: As stated during the public meeting, the DAPC cannot take into consideration any labor issues. Additionally see response 3.a. for more information regarding the determination for warm mix asphalt technology.

- c. Comment: **There needs to be a protection plan in place for the people on Portland Road. There was a protection plan in place for State Route 4 and there was one in place for**

**Strecker Road. There needs to be a committee set up to monitor these companies [Erie Materials, Gerken Materials and Hanson Aggregates] so that there is communication.**

Response: The protection plan addressed in the comment appears to be an area zoning issue which as indicated during the public meeting, area zoning issues cannot taken into consideration for the proposed air permit action.



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Erie Materials**

Facility ID: 0322020256  
Permit Number: P0105371  
Permit Type: OAC Chapter 3745-31 Modification  
Issued: 7/14/2010  
Effective: 7/14/2010  
Expiration: 7/14/2015



**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Erie Materials**

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## Authorization

Facility ID: 0322020256  
Application Number(s): A0038231  
Permit Number: P0105371  
Permit Description: Permit modifications for a drum mix asphalt plant originally installed in 1995. The permit modifications involve revisions to current emission limitations, a modification to allow the use of slag (a byproduct of foundry operations) as a raw material in the production of asphalt material, and the establishment of synthetic minor restrictions.  
Permit Type: OAC Chapter 3745-31 Modification  
Permit Fee: \$0.00  
Issue Date: 7/14/2010  
Effective Date: 7/14/2010  
Expiration Date: 7/14/2015  
Permit Evaluation Report (PER) Annual Date: Oct 1 - Sept 30, Due Nov 15

This document constitutes issuance to:

Erie Materials  
9220 Portland Road  
Sandusky, OH 44870

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, Northwest District Office  
347 North Dunbridge Road  
Bowling Green, OH 43402  
(419)352-8461

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: P0105371  
Permit Description: Permit modifications for a drum mix asphalt plant originally installed in 1995. The permit modifications involve revisions to current emission limitations, a modification to allow the use of slag (a byproduct of foundry operations) as a raw material in the production of asphalt material, and the establishment of synthetic minor restrictions.

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>P901</b>
Company Equipment ID:	400 TPH Drum Mix Asphalt Plant
Superseded Permit Number:	
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, Northwest District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

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

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

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

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

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

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting<sup>1</sup> 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

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<sup>1</sup> 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).

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.

## **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 Drum Mix Asphalt Plant

Operations, Property and/or Equipment Description:

Drum Mix Asphalt Plant (400 TPH)

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)(11)..

(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.

b)(1)b., b)(2)a., c)(2), d)(3), d)(4), d)(5), d)(6), e)(1), and f)(1)b through f)(1)f.

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.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row 'a.' contains OAC rule 3745-31-05(A)(3) and details on SO2 emissions for different fuel types and slag use.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>fuel.</p> <p>Nitrogen oxides (NOx) emissions while burning on-spec used oil and number 2 fuel oil shall not exceed 0.075 pound per ton of asphalt produced.</p> <p>NOx emissions while burning natural gas shall not exceed 0.026 pound per ton of asphalt produced.</p> <p>Carbon monoxide (CO) emissions while burning any approved fuel shall not exceed 0.15 pound per ton of asphalt produced [see b)(2)m.]</p> <p>Organic compounds (OC) emissions, while burning any approved fuel, shall not exceed 0.10 pound per ton of asphalt produced [see b)(2)n.]</p> <p>Particulate emissions (PE), while burning any approved fuel, shall not exceed 0.033 pound per ton of asphalt produced.</p> <p>See b)(2)b. through b)(2)e. and b)(2)k. through b)(2)q.</p>
b.	OAC rule 3745-31-05(D)	<p>Stack Emissions:</p> <p>PE shall not exceed 8.25 tons per rolling, 12-month period.</p> <p>SO2 emissions shall not exceed 27.50 tons per rolling, 12-month period.</p> <p>NOx emissions shall not exceed 18.75 tons per rolling, 12-month period.</p> <p>CO emissions shall not exceed 37.50 tons per rolling, 12-month period.</p> <p>OC emissions shall not exceed 25.00 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 0.33 ton CO per rolling, 12-month period, 0.13 ton PE per rolling, 12-month period, and 1.05 tons of OC per rolling, 12-month period.</p> <p>Asphalt Silo Filling Emissions:</p> <p>Emissions from silo filling operations shall not exceed 0.30 ton CO per rolling 12-month period, 0.15 ton PE per rolling 12-month period, and 3.05 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 cold aggregate, sand, and RAP transfer operations shall not exceed 3.53 tons of PE per rolling, 12-month period.</p> <p>See b)(2)a.</p>
c.	40 CFR Part 60, Subpart I	<p>Emissions from the baghouse stack shall not exhibit 20% opacity, or greater.</p> <p>See b)(2)l.</p>
d.	<p>OAC rule 3745-17-07(A)(1) OAC rule 3745-17-11(B)(1) OAC rule 3745-17-07(B)(1) OAC rule 3745-17-08(A)(1) OAC rule 3745-18-06(E)</p>	<p>See b)(2)g. See b)(2)f. See b)(2)h. See b)(2)i. See b)(2)f.</p>

(2) Additional Terms and Conditions

- a. The emission limitations per rolling, 12-month period contained in b)(1)b are based on production restrictions [see c)(2)] for the purpose of establishing federally enforceable limitations to avoid Prevention of Significant Deterioration (PSD) and Title V applicability. For purposes of federal enforceability, a limitation on OC emissions effectively restricts volatile organic compound (VOC) emissions.
- b. 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.

- c. 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.
- d. There shall be no visible emissions of fugitive dust from the enclosures for the rotary drum and the hot mix asphalt elevator.
- e. 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 percent opacity, as a 3-minute average.
- f. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)(a).
- g. The emission limitation specified by this rule is less stringent than the opacity limitation established pursuant to 40 CFR Part 60, Subpart I.
- h. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B) (11) (e).
- i. The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08.
- j. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and the opacity requirements of 40 CFR Part 60, Subpart I.
- k. The particulate matter emissions limitation of 0.04 gr/dscf specified by this rule is less stringent than the 0.033 pound PE per ton as asphalt produced limitation established pursuant to OAC rule 3745-31-05(A)(3)(a).
- l. The best available technology (BAT) determination was made in accordance with U.S. EPA's "Guidance on the Appropriate Injunctive Relief for Violations of Major New Source Review Requirements (Memorandum)" dated 11-17-98. Emissions unit P901 was installed in 3-95 under PTI #03-8713 with potential emissions below applicable major source thresholds. Revised emission calculations indicate that potential CO emissions exceeded the major source threshold. Actual source emissions never exceeded major source thresholds, thus requiring the application of best available control technology (BACT) equivalent control which has been determined to be 0.15 pounds of carbon monoxide per ton of asphalt produced.
- m. The best available technology (BAT) determination was made in accordance with U.S. EPA's "Guidance on the Appropriate Injunctive Relief for Violations of Major New Source Review Requirements (Memorandum)" dated 11-17-98. Emissions unit P901 was installed in 3-95 under PTI #03-8713 with potential emissions below applicable major source thresholds. Revised emission calculations indicate that potential OC emissions exceeded the major source threshold.

Actual source emissions never exceeded major source thresholds, thus requiring the application of best available control technology (BACT) equivalent control which has been determined to be 0.10 pounds of organic compounds per ton of asphalt produced.

- n. 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.
- o. All number 4 oil burned in the emissions unit shall have a sulfur content equal to or less than 0.8 percent, by weight.
- p. Each shipment of oil burned in this emissions unit shall be “on-specification” (on-spec) oil and shall meet the used oil specifications contained in OAC rule 3745-279-11. The permittee shall determine that the used fuel oil meets these specifications by performing analyses or obtaining copies of analyses or other information from the supplier documenting that the used fuel oil does not exceed (except for flash point which shall not fall below) the following limitations:

Property/Contaminant Allowable Specifications

arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 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
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:

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

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 is subject to OAC rules 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 500,000 tons per rolling 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the production levels specified in the following table:

Months	Maximum Allowable Cumulative Tons of Hot Mix Asphalt Produced
1	100,000
1-2	200,000
1-3	300,000
1-4	400,000
1-12	500,000

After the first 12 calendar months of operation, compliance with the annual production limitation shall be based upon a rolling, 12-month summation of the asphalt production; and

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

$$27.50 \text{ tons per 12-month period} \geq ((0.001)*(a) + (0.066)*(b) + (0.11)*(c) + (0.53)(d))/2000$$

Where:

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

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

c = tons asphalt produced with #4 fuel oil per rolling, 12-month period; and

d = 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 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. 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 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 it has been determined that they do not contain asbestos. Verification that the shingles do not contain asbestos can either be done by actual testing of a representative sample of the shingles, or by verification from the shingle manufacturer that the shingles do not contain asbestos. Records shall be kept documenting the asbestos verification of any shingles used in the feed mix consistent with the language requirements in the standard terms and conditions.

- (5) The permittee shall only burn natural gas, number 2 fuel oil, number 4 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 50 feet above the ground, prior to commencing use of slag.
  - (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, at anytime 1,500 tons per day.
  - (9) The pressure drop across the baghouse shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation (except for an initial operating period after filter media replacement to attain design filtering efficiency).
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall document all times the baghouse and/or associated control equipment serving this emissions unit were/was not employed when the emissions unit was in operation.
  - (2) 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.

- (3) The permittee shall maintain daily records of the following information:
  - a. the type of slag used, i.e. size classification;
  - b. amount of slag used, in tons; and
  - c. the maximum amount, in percent, of RAP and/or shingles used in any mix.
- (4) The permittee shall maintain monthly records of the following information for emissions unit P901:
  - a. the total asphalt produced for each fuel type, in tons, for each month;
  - b. during the first 12 calendar months of operation, the permittee shall record the cumulative asphalt production and the asphalt production by fuel type;

- c. beginning after the first 12 calendar months of issuance of this permit, the rolling, 12-month summation of the asphalt production and the asphalt production by fuel type; and
- d. beginning after the first 12 calendar months of issuance of this permit, the rolling, 12-month summation, in tons, of the PE, SO<sub>2</sub>\*, NO<sub>x</sub>, OC, and CO emissions.

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

- (5) For each shipment of number 2 fuel oil, number 4 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.
- (6) The permittee shall submit and receive approval from Ohio EPA for a slag sampling and testing plan prior to applying slag in the asphalt mix. In the slag sampling plan, the permittee shall commit to demonstrating that the sulfur content of the slag does not exceed 1.75%.
- (7) The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack servicing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible particulate emissions are observed, the permittee shall note the following in the operation log:
  - a. the color of the visible emissions;
  - b. the cause of the visible particulate emissions;
  - c. the total duration of the visible emission incident; and
  - d. corrective actions taken to correct the excess visible particulate emissions.
- (8) 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. 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
  - d. any corrective actions taken to minimize or eliminate the visible emissions.
- (9) 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)(2)). 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.

- (10) 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.
- (11) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's increase in annual emissions as a result of this permit, 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 and Operate (PTIO) 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 PTIO.

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 restrictions: 1.75% sulfur content and 1,500 tons per 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 sulfur content limitations: 0.5%, 0.8%, and on-spec used oil specifications, as listed in b)(2)o. through b)(2)q.
  - b. 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 a 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 the annual permit evaluation report the following information:
  - a. concerning the quality of used oil burned in this emissions unit:
    - i. any exceedance of the used oil standards in OAC rule 3745-279-11;
    - ii. any occasion where oil containing 1,000 ppm or more total halogens was burned prior to submitting an acceptable (approved by the Division or Hazardous Waste Management) rebuttal to the presumption that the oil contains or has been mixed with hazardous waste;
    - iii. any exceedance of the limitations for mercury and/or PCBs;
    - iv. any deviation from the minimum heat content of 135,000 Btu/gallon.
  - b. concerning visible particulate emissions:
    - i. identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit; and
    - ii. describe any corrective actions take to minimize or eliminate the abnormal visible particulate emissions.
- (4) Where the analytical results for any shipment of used oil burned in this emissions unit establish that the used oil contains total halogens greater than 1,000 ppm, but less than 4,000 ppm, the results of the analysis for total halogens (from the appropriate test Method 9075, 9076, or 9077) and the information obtained to rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste shall be submitted to the appropriate District Office or local air agency. Each rebuttal demonstration shall include:
  - a. the date the used oil was received;
  - b. the facility location or identification number where the oil was or will be burned;
  - c. the amount of oil in the shipment; and

- d. all information, including all the analytical results, relied upon by the permittee to rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste.

The rebuttal demonstrations for used oil received from October to December shall be submitted by January 31; used oil received from January to March, by April 30; used oil received from April to June, by July 31; and used oil received from July to September, by October 31.

f) Testing Requirements

- (1) Compliance with the emission limitations in section 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 0.026 pound per ton of asphalt produced; NO<sub>x</sub> emissions, while burning on-spec used oil, number 2 fuel oil or number 4 fuel oil, shall not exceed 0.075 pound per ton of asphalt produced; SO<sub>2</sub> emissions, while burning natural gas, shall not exceed 0.0034 pound per ton of asphalt produced; SO<sub>2</sub> emissions, while burning number 2 fuel oil, shall not exceed 0.066 pound per ton of asphalt produced; SO<sub>2</sub> emissions, while burning on-spec used oil or number 4 fuel oil, shall not exceed 0.11 pound per ton of asphalt produced; 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; CO emissions, while burning any approved fuel, shall not exceed 0.15 pound per ton of asphalt produced; OC emissions, while burning any approved fuel, shall not exceed 0.10 pound per ton of asphalt produced; and PE, while burning any approved fuel, shall not exceed 0.033 pound per ton of asphalt produced..

Applicable Compliance Method:

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

- i. Emission testing shall be conducted within 120 days after the issuance of this permit or after beginning operation after the issuance of this permit, whichever date is later, unless otherwise specified or approved by the Ohio EPA District Office or local air agency. 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 used only once per permitting cycle. For the purposes of this permit, secondary fuels shall be fuels used after the initial emissions test for this permit cycle [See f)(1)(a)(v)].
- ii. Future emission testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, etc.). Testing time frame(s) specified may be amended or

waived for cause upon prior request of, and written approval of, the Ohio EPA District Office or local air agency.

iii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE, OC, CO, NO<sub>x</sub> and SO<sub>2</sub> for the primary fuel. Prior to secondary fuel use emissions testing, the permittee shall consult the appropriate Ohio EPA District Office or local air agency to determine which pollutants should be tested.

iv. 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<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

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

The OC pounds per hour emission rate observed during the emissions test shall be calculated in accordance with OAC paragraph 3745-21-10(C)(7). In lieu of this the permittee shall convert the mass emission value from OC as carbon to OC using the molecular weight of propane, i.e., the OC as carbon emission rate observed during testing shall be converted to the appropriate units by multiplying the OC emission rate observed during testing (in lbs./hr) by 44 (propane) and dividing by 36 (3 atoms of carbon).

v. Where the analytical results for any shipment of used oil to be burned in this emissions unit shows a detectable quantity of mercury and/or PCB's the permittee shall conduct or have conducted emissions testing within 60 days after such oil is initially used in this emission unit. The testing must be performed when firing used oil from a shipment with analytical results showing a detectable quantity of mercury and/or PCBs. It should be noted that additional testing for mercury and/or PCB's may be required if subsequent shipments of used oil show higher levels of mercury and/or PCB's compared to the levels in the used oil burned during emissions testing. The following test method(s) shall be employed to demonstrate mass emission rate(s) for mercury and/or PCB's:

(a) for Hg, Methods 1-4 and 29 of 40 CFR Part 60, Appendix A or Method 101A of 40 CFR Part 61, Appendix B.

(b) for PCB's, the permittee shall employ appropriate methods as approved by the Ohio EPA District Office or local air agency.

- vi. The test(s) shall be conducted while this emissions unit is operating at its maximum capacity for PE, OC, CO, NOx and SO<sub>2</sub>\* and employing RAP to verify OC emissions, unless otherwise specified or approved by the Ohio EPA District Office or local air agency.

\*Emission testing for SO<sub>2</sub> will not be required when burning natural gas.

Required test(s) for Hg and/or PCB's shall be conducted while this emissions unit is operating at its maximum capacity for used oil consumption.

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 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 Ohio EPA District Office or local air agency's refusal to accept the results of the emission test(s).

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

- b. Emissions Limitation:

PE emissions shall not exceed 8.25 tons per rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the pound per ton of asphalt produced PE limitation by the rolling, 12 month asphalt production restriction and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the pound per ton of asphalt produced PE limitation and the rolling, 12 month asphalt production restriction, compliance with the annual emission limitation shall also be demonstrated.

- c. Emission Limitation:

OC emissions shall not exceed 25.00 tons per rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the pound per ton of asphalt produced OC emission limitation by the rolling, 12 month asphalt production restriction and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the pound per ton of asphalt produced OC emission limitation and the rolling, 12 month asphalt production restriction, compliance with the annual emission limitation shall also be demonstrated.

d. Emission Limitation:

CO emissions shall not exceed 37.50 tons per rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the pound per ton of asphalt produced CO emission limitation by the rolling, 12 month asphalt production restriction and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the pound per ton of asphalt produced CO emission limitation and the rolling, 12 month asphalt production restriction, compliance with the annual emission limitation shall also be demonstrated.

e. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 27.50 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)].

f. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 18.75 tons per rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the “worst-case” pound per ton of asphalt produced NO<sub>x</sub> emission limitation by the rolling 12 month asphalt production restriction and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the pound per ton of asphalt produced NO<sub>x</sub> emission limitation and the rolling, 12 month asphalt production restriction, compliance with the annual emission limitation shall also be demonstrated.

g. Emission Limitation:

Emissions from the baghouse stack shall not exhibit 20% opacity, or greater.

Applicable Compliance Method:

Upon request by the appropriate Ohio EPA District Office or local air agency, visible particulate emissions shall be determined according to USEPA Method 9 of 40 CFR Part 60, Appendix A.

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:

Upon request by the appropriate Ohio EPA District Office or local air agency, visible particulate emissions 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)(c) of OAC rule 3745-17-03.

j. 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 percent opacity, as a 3-minute average.

Applicable Compliance Method:

Upon request by the appropriate Ohio EPA District Office or local air agency, visible particulate emissions 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.

k. Emissions Limitation:

Emissions of fugitive dust associated with the cold aggregate, sand, and RAP loading, and cold aggregate, sand, and RAP transfer operations shall not exceed 3.53 tons of PE per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be assumed based upon the following worst-case calculations using emission factors from AP-42 5th Edition, Table 11.12-2 (10/01) and 11.1.2.5 (12/00):

Fugitive emissions from the cold end are calculated as follows

Weigh hopper loading:

500,000 tons of material/year X 0.0051 lb PE/ton of material = 2,550 lbs PE/yr

Aggregate transfer:

500,000 tons of aggregate/year X 0.0069 lb PE/ton of aggregate = 3,450 lbs PE/yr

Sand transfer:

500,000 tons of sand/year X 0.0021 lb PE/ton of sand = 1,050 lbs PE/yr

The sum of the above is 7050 lbs PE/yr X 1 ton/2000 pounds = 3.53 tons PE

I. Emissions Limitation:

Asphalt Load Out and Silo Filling Emissions:

- i. Emissions from asphalt load out operations shall not exceed 0.33 ton CO per rolling, 12-month period, 0.13 ton PE per rolling, 12-month period, and 1.05 tons of OC per rolling, 12-month period;
- ii. Emissions from asphalt silo filling operations shall not exceed 0.30 ton CO per rolling, 12-month period, 0.15 ton PE per rolling, 12-month period, and 3.05 tons OC per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitations shall be assumed based upon the following worst-case calculations using emission factors from AP-42 5th Edition, Table 11.1-14 (3/2004) and the asphalt production restriction:

Known:

V = -0.5 Asphalt volatility factor (default)

T = 325 HMA mix temp (F) (default)

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

For plant load out, 7.3 per cent of TOC is not VOC (AP-42 Table 11.1-16, 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	OC	$EF= [0.0504(-V)e^{((0.0251)(T+460)-20.43)}] \times (1-0.014)$
Load out	OC	$EF= [0.0172(-V)e^{((0.0251)(T+460)-20.43)}] \times (1-0.073)$
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 500,000 tons/yr production)
Silo filling	PE	$5.86 \times 10^{-4}$	0.15
Load out	PE	$5.22 \times 10^{-4}$	0.13
Silo filling	OC	$1.22 \times 10^{-2}$	3.05
Load out	OC	$4.14 \times 10^{-3}$	1.04
Silo filling	CO	$1.18 \times 10^{-3}$	0.30
Load out	CO	$1.35 \times 10^{-3}$	0.34

(2) Used Oil Analyses

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” of “Extraction Procedure Toxicity Test”. Chapter 2 of “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (SW-846) shall be used for selecting the appropriate test methods for the used oil analyses.

(3) Burner Tuning

a. Introduction

The permittee shall submit for approval from Ohio EPA a “burner tuning procedure” for this facility by April 1, of each year. 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. If approval is not granted then the permittee shall submit another burner tuning procedure within 30 days of

receiving a written disapproval. In the event no burner tuning procedure is submitted and approved within the specified timelines then the following shall be adhered to:

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)(2)) 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.

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.

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.

(4) Miscellaneous Requirements

- a. 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.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
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.

NSPS contains a requirement to report the items below. These reporting requirements were fulfilled under the initial permit to install (03-8713) issued on August 9, 1995.

- i. Construction date (no later than 30 days after such date);
  - ii. Actual start-up date (within 15 days after such date); and
  - iii. Date of performance testing (If required, at least 30 days prior to testing).
- b. Burner Tuning Form (see next page)
- c.

## 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 (i.e.: 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)			
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 manufacturer's specifications. Use additional paper if necessary.

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

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