



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
HURON COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 03-16306**

**Fac ID: 0339020175**

**DATE: 7/28/2005**

Riley Materials  
Charlie Riley  
151 Akron Road  
Norwalk, OH 44857

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. 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, Ohio 43215

Sincerely,

*Michael W. Ahern*

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

NWDO



---

**Permit To Install  
Terms and Conditions**

**Issue Date: 7/28/2005  
Effective Date: 7/28/2005**

---

**FINAL PERMIT TO INSTALL 03-16306**

Application Number: 03-16306  
Facility ID: 0339020175  
Permit Fee: **\$1250**  
Name of Facility: Riley Materials  
Person to Contact: Charlie Riley  
Address: 151 Akron Road  
Norwalk, OH 44857

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**4635 State Route 601  
Norwalk, Ohio**

Description of proposed emissions unit(s):  
**150 TPH drum mix asphalt plant w/ baghouse, dryer drum, hot aggregate elevator and storage piles.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon

**Riley Materials**  
**PTI Application: 03-16306**  
**Issued: 7/28/2005**

**Facility ID: 033902017**

the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**9. Construction of New Sources(s)**

**Riley Materials**  
**PTI Application: 03-16306**  
**Issued: 7/28/2005**

**Facility ID: 033902017**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

#### **10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

#### **11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

#### **12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

**14. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**15. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

**B. Permit to Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant

Tons Per Year

(stack emissions)	
PE	8.25
SO2	25.00
CO	37.50
NOx	18.75
OC	37.50
(fugitive emissions)	
PE	3.80
OC	
CO	4.09
	0.64

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

- The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P901 - 150 tons per hour drum mix asphalt plant w/ baghouse, dryer drum, hot aggregate elevator and silo.	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-31-05(C)

40 CFR Part 60, Subpart I

Applicable Emissions  
Limitations/Control Measures

OAC rule 3745-21-07(B)

Stack Emissions:

OAC rule 3745-21-08(B)

Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 0.10 pounds per ton of asphalt produced.

OAC rule 3745-17-07(A)(1)

Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 0.075 pounds per ton of asphalt produced.

OAC rule 3745-17-11(B)(1)

OAC rule 3745-18-06(E)

Carbon monoxide (CO) emissions shall not exceed 0.15 pounds per ton of asphalt produced.

Organic compounds (OC) emissions shall not exceed 0.15 pounds per ton of asphalt produced.

Particulate emissions (PE) shall not exceed 0.03 gr/dscf of exhaust gas

See A.2.b-g below.

See A.2.a

Stack Emissions:

8.25 tons PE (stack) per rolling 12-month period

25.00 tons SO<sub>2</sub> per rolling 12-month period

18.75 tons NO<sub>x</sub> per rolling 12-month period

37.50 tons CO per rolling 12-month period

37.50 tons OC per rolling  
12-month period

See A.2.h

**Asphalt Load Out Emissions**

See A.2.h

Emissions from load out  
operations shall not exceed  
0.34 tons CO per rolling  
12-month period, 0.13 tons PE  
per rolling 12-month period and  
1.04 tons of OC per rolling  
12-month period.

See A.2.i

The emissions limitations  
specified by these rules are less  
stringent than the emission  
limitations established pursuant  
to OAC rule 3745-31-05(A)(3).

**Asphalt Silo Filling Emissions**

Emissions from silo filling  
operations shall not exceed  
0.30 tons CO per rolling  
12-month period, 0.15 tons PE  
per rolling 12-month period and  
3.05 tons OC per rolling  
12-month period.

**Cold End Fugitive Dust  
Emissions**

Emissions of fugitive dust  
associated with the weigh  
hopper loading, aggregate  
transfer operations and sand  
transfer operations shall not  
exceed 3.52 tons of PE per  
rolling 12-month period.

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

See A.2.j

## **2. Additional Terms and Conditions**

- 2.a** The emission limitations per rolling 12-month period contained in A.1 are based on production restrictions (see B.1) for the purpose of establishing federally enforceable limitations to avoid Title V applicability. For purposes of federal enforceability, a limitation on OC emissions effectively restricts volatile organic compound (VOC) emissions.
- 2.b** The permittee shall ensure that the baghouse is operated with sufficient air volume to eliminate visible fugitive emissions from the rotary drum.
- 2.c** Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see section A.2.b).
- 2.d** No visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper.
- 2.e** Visible emissions of fugitive dust (from areas other than the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper) shall be less than or equal to 10% opacity, as a 3-minute average.
- 2.f** 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.
- 2.g** The aggregate loaded into the storage bins shall have a moisture content sufficient to minimize the visible emissions of fugitive dust from conveyors and all transfer points to the dryer.
- 2.h** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07(B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs

Emissions Unit ID: P901

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.

- 2.i The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart I.
- 2.j The gr/dscf emission limitation for PE specified by this rule is less stringent than the emission limitation for the maximum outlet concentration established pursuant to OAC rule 3745-31-05(A).

## B. Operational Restrictions

1. The pressure drop across the fabric filter shall be maintained within the range of 2 to 12 inches of water while the emissions unit is in operation.
2. The maximum annual asphalt production rate for this emissions unit shall not exceed 200,000 tons per year, based upon a rolling, 12-month summation of the asphalt production.

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

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Tons of Hot Mix Asphalt Produced</u>
1	50,000
1-2	100,000
1-3	150,000
1-4	200,000
1-5	250,000
1-6	300,000
1-7	350,000
1-8	400,000
1-9	450,000
1-10	500,000
1-11	500,000
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.

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 OC, CO and NOx.
4. The permittee may substitute reclaimed asphalt pavement (RAP) in the raw material feed mix in amounts not to exceed 50 per cent of all aggregate materials.
5. The permittee shall combust only distillate oil in this emissions unit.

The oil combusted in this emissions unit shall only be distillate fuel (fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils"). The sulfur content of the distillate oil shall contain no more than 0.5 weight percent sulfur.

### **C. Monitoring and/or Recordkeeping Requirements**

1. For each day during which a fuel other than distillate oil is burned the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. 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.
3. The permittee shall maintain monthly records of the following information:
  - a. the asphalt production for each month;
  - b. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the asphalt production;
  - c. during the first 12 calendar months of operation, the permittee shall record the cumulative asphalt production for each calendar month; and
  - d. the maximum percentage of RAP used for any mix.
4. For each shipment of distillate 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.

5. The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when the weather conditions allow, for any abnormal (above the allowable) visible particulate emissions from the baghouse servicing this emissions unit. 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 emissions;
  - c. the total duration of the visible emission incident; and
  - d. corrective actions taken to correct the excess visible particulate emissions.
6. The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the hot aggregate elevator, vibrating screens, weigh hopper, the aggregate storage bins, the rotary drum and cold aggregate elevator/conveyor serving this emissions unit. If visible emissions are observed, the permittee shall note the following in the operation log:
  - a. the location and color of the visible emissions;
  - b. the cause of the visible particulate emissions;
  - d. the total duration of any visible emissions incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.
7. While performing each burner tuning, the permittee shall record the results of the burner tuning using the *Burner Tuning Reporting Form Asphalt Concrete Plants form* (as found in F.2). An alternative form may be used upon approval of the appropriate Ohio EPA District Office of local air agency.

#### D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not

- comply with the allowable range specified above. These reports are due by the dates described in Part I - General Terms and Condition of this permit under section (A)(2).
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling 12-month asphalt production limitation. These reports are due by the dates described in Part I - General Terms and Conditions of this permit under section (A)(2).
  3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the RAP limitation specified above. These reports are due by the dates described in Part I - General Terms and Condition of this permit under section (A)(2).
  4. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling 12-month SO<sub>2</sub>, NO<sub>x</sub>, OC, CO, and PE emission limitations. These reports are due by the dates described in Part I - General Terms and Condition of this permit under section (A)(2).
  5. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the sulfur content limit specified above. These reports are due by the dates described in Part I - General Terms and Condition of this permit under section (A)(2).
  6. The permittee shall submit semiannual written deviation (excursion) reports that (a) identify all days during which any abnormal (above the allowable) visible particulate emissions were observed from the stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Ohio EPA district office or local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
  7. The permittee shall submit semiannual written deviation (excursion) reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the hot aggregate elevator, vibrating screens, weigh hopper, aggregate storage bins, rotary drum, and cold aggregate elevator/conveyor serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA district office or local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
  8. The permittee shall submit a copy of the *Burner Tuning Reporting Form for Asphalt*

Emissions Unit ID: **P901**

*Concrete Plants* form to the appropriate Ohio EPA district office or local air agency to summarize the results of each burner tuning procedure. These reports shall be submitted to the Ohio EPA district office or local air agency by January 31 of each year and shall cover the previous calendar year.

9. The permittee shall submit deviation reports that identify each day when a fuel other than distillate oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## **E. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitations: NO<sub>x</sub> emissions shall not exceed 0.075 pounds per ton of asphalt produced; SO<sub>2</sub> emissions shall not exceed 0.10 pounds per ton of asphalt produced; CO emissions shall not exceed 0.15 pounds per ton of asphalt produced; OC emissions shall not exceed 0.15 pounds per ton of asphalt produced; 0.03 gr PE/dscf of exhaust gas

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

- i. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 120 days after initial startup of the emissions unit.
- ii. 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>.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) for:

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

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

For SO<sub>2</sub>, Methods 1-4 and 6 or 6C of 40 CFR Part 60, Appendix A

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

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

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 for PE, OC, CO, NO<sub>x</sub> and SO<sub>2</sub> and employing RAP to verify VOC emissions, unless otherwise specified or approved by the 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 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: Compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of PE per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling

Emissions Unit ID: P901

12-month period (as derived from the records required by term and condition C.3 above), and dividing by 2000.

- c. Emission Limitation: OC emissions shall not exceed 37.50 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of VOC per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period (as derived from the records required by term and condition C.3 above), and dividing by 2000.

- d. Emission Limitation: CO emissions shall not exceed 37.50 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of CO per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period (as derived from the records required by term and condition C.3 above), and dividing by 2000.

- e. Emission Limitation: SO<sub>2</sub> emissions shall not exceed 25.00 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of SO<sub>2</sub> per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period (as derived from the records required by term and condition C.3 above), and dividing by 2000.

- f. Emission Limitation: NO<sub>x</sub> emissions shall not exceed 18.75 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation 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, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period (as derived from the records required by term and condition C.3

above), and dividing by 2000.

- g. Emission Limitation: Emissions from the baghouse stack shall not exhibit 20% opacity, or greater.

Applicable Compliance Method: Compliance shall be determined using Method 9 as set forth in 40 CFR Part 60 Appendix A.

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

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

- i. Emission Limitation: Visible emissions of fugitive dust (from areas other than the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper) shall be less than or equal to 10% opacity, as a 3-minute average.

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

- j. Emissions Limitation: Fugitive PE emissions from the cold end shall not exceed 3.52 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions 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):

Fugitives 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 = 2550 lbs PE/yr

Aggregate transfer:

500,000 tons of aggregate/year X 0.0069 lb PE/ton of aggregate = 3450 lbs PE/yr

Sand transfer:

500,000 tons of sand/year X 0.0021 lb PE/ton of sand = 1050 lbs PE/yr

The sum of the above is 7050 lbs PE/yr X 1 ton/2000 pounds = 3.52 tons PE

- k. Emissions Limitation: Fugitive emissions from the hot end (hot mix asphalt load-out and silo filling):
- a. Emissions from load out operations shall not exceed 0.34 tons CO per rolling 12-month period, 0.13 tons PE per rolling 12-month period and 1.04 tons of OC per rolling 12-month period.
  - b. Emissions from silo filling operations shall not exceed 0.30 tons CO per rolling 12-month period, 0.15 tons PE per rolling 12-month period and 3.05 tons OC per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation 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)

<u>Activity</u>	<u>Pollutant</u>	<u>Predictive Emission Factor Equation, lb/ton</u>
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	$EF=0.0504(-V)e^{((0.0251)(T+460)-20.43)}$
Load-out	OC	$EF=0.0172(-V)e^{((0.0251)(T+460)-20.43)}$

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:

<u>Activity</u>	<u>Pollutant</u>	<u>lb/ton</u>	<u>tons/yr (at 500,000 tons/yr production)</u>
Silo filling	PE	5.86 x 10 <sup>-4</sup>	0.15
Load-out	PE	5.22 x 10 <sup>-4</sup>	0.13
Silo filling	OC	1.22 x 10 <sup>-2</sup>	3.05
Load-out	OC	4.14 x 10 <sup>-3</sup>	1.04
Silo filling	CO	1.18 x 10 <sup>-3</sup>	0.30
Load-out	CO	1.35 x 10 <sup>-3</sup>	0.34

## 2. Burner Tuning

### a. Introduction

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

### b. Qualifications for Burner Tuning

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

### c. Portable Monitor Requirements

The permittee shall properly operate and maintain portable device(s) to monitor the concentration of NO<sub>x</sub>, VOC, 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 E.1.a. The baselines shall be determined for VOC, NO<sub>x</sub>, and CO. Sampling should measure the exhaust gas values exiting 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 F.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 E.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 monitor manufacturer's recommended sampling duration, measure the stack exhaust gas values for VOC, 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. By January 31st of each year, submit a copy of all Burner Tuning Reporting Form for Asphalt Concrete Plants forms produced during the past calendar year to the Ohio EPA District Office or local air agency responsible for the permitting of the facility.
- e. Burner Tuning Frequency

The permittee shall conduct the burner tuning procedure within 20 production days after commencement of the production season in the State of Ohio. The permittee shall conduct another burner tuning procedure within 10 production days before or after June 1st of each year and within 10 production days before or after September 1st of each year. For purposes of this permit, the production season is defined as the time period between the date the first ton of asphalt is produced and the date that the last ton of asphalt is produced during the same calendar year. A burner tuning is not required if the production season ends prior to the associated tuning due date.

## F. Miscellaneous Requirements

1. 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	150 Ton/Hr asphalt plant	Subpart I

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

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

- a. Construction date (no later than 30 days after such date);
- b. Actual start-up date (within 15 days after such date); and

- c. Date of performance testing (If required, at least 30 days prior to testing).

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

- 2. Burner Tuning Form (see next page)
- 3. The terms and conditions contained in Part II, A.1 through F.2 are federally enforceable.