



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
PICKAWAY 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: 01-08940**

**Fac ID: 0165010135**

**DATE: 8/11/2005**

Westfall Aggregates and Materials Inc  
Kevin Steward  
6790 Brooks-Miller Road  
Circleville, OH 43113

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

CDO



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**Permit To Install  
Terms and Conditions**

**Issue Date: 8/11/2005  
Effective Date: 8/11/2005**

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**FINAL PERMIT TO INSTALL 01-08940**

Application Number: 01-08940  
Facility ID: 0165010135  
Permit Fee: **\$6000**  
Name of Facility: Westfall Aggregates and Materials Inc  
Person to Contact: Kevin Steward  
Address: 6790 Brooks-Miller Road  
Circleville, OH 43113

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**19952 London Road  
Circleville, Ohio**

Description of proposed emissions unit(s):  
**Overburden removal, scrapper and bulldozer.**

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

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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)**

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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.

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**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

Emissions Unit ID: B001

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	22.94
NOx	17.9
CO	18.31
SO2	0.73
VOC	6.57
PM-10	9.46

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

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

1. 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>	OAC rule 3745-35-07(B)
B001 - 750 KW (855 HP) diesel fired generator	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)(1)
		OAC rule 3745-17-11(B)(5)(b)

	<u>Applicable Emissions Limitations/Control Measures</u>	
	Nitrogen oxide (NO <sub>x</sub> ) emissions shall not exceed 13.5 lbs/hour.	8.78 tons per rolling 12-month period. Visible particulate emissions shall not exceed 20% opacity, as a six(6)-minute average, except as provided by the rule.
	Carbon monoxide (CO) emissions shall not exceed 2.52 lbs/hour.	The particulate emissions from the engine's exhaust shall not exceed 0.35 pound per million Btu of actual heat input. See Section A.2.b. below.
OAC rule 3745-18-06(B)	Volatile Organic Compound (VOC) emissions shall not exceed 0.47 lb/hour.	The particulate emissions from the engine's exhaust shall not exceed 0.062 pound per million Btu of actual heat input. See Section A.2.c. below.
OAC rule 3745-21-08(B)	Sulfur Dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.0084 lb/hour.	See Section A.2.d. below.
OAC rule 3745-23-06(B)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-35-07(B), 3745-17-07(A)(1) and 3745-17-11(B)(5)(b).	See Section A.2.e. below. See Section A.2.f. below.
	Particulate emissions (PE) shall not exceed 0.26 ton per rolling 12-month period.	
	CO emissions shall not exceed 1.64 tons per rolling 12-month period.	
	VOC emissions shall not exceed 0.31 ton per rolling 12-month period.	
	SO <sub>2</sub> emissions shall not exceed 0.005 ton per rolling 12-month period.	
	NO <sub>x</sub> emissions shall not exceed	

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

- 2.a** The hourly emissions limitations for this emissions unit were established to reflect the potential to emit. Therefore, with the exception of the fuel oil analysis, it is not necessary to develop additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulate emission limitation shall terminate on the date the U.S. EPA approves the 0.062 pound per million Btu of actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.d** OAC rule 3745-18-06(B) exempts stationary internal combustion engines which have rated heat input capacities equal to, or less than, 10 MMBtu/hr from the sulfur dioxide emission limit in OAC rule 3745-18-06(G). This emissions unit has a rated heat input of 4.79 MMBtu/hr.

- 2.e The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

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

- 2.f The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06(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 February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

**B. Operational Restrictions**

- 1. The maximum annual operating hours for this emissions unit shall not exceed 1300 hours, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative operating hours in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	215
1-2	430

1-3	645
1-4	860
1-5	1075
1-6	1300
1-7	1300
1-8	1300
1-9	1300
1-10	1300
1-11	1300
1-12	1300

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual cumulative operating hour limitation shall be based upon a rolling, 12-month summation of the hours of operation.

2. The permittee shall burn only no. 2 fuel oil in this emissions unit.
3. The quality of the no. 2 fuel oil burned in this emissions unit shall meet a sulfur content which is equal to or less than 0.5 weight percent sulfur on an "as burned" basis.

### **C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain monthly records of the following information:
  - a. The operating hours for each month.
  - b. During the first 12 calendar months of operation, the permittee shall record the cumulative hours of operation for each calendar month.
  - c. The rolling, 12-month summation of the operating hours.
  - d. The type and amount (gallons or cubic feet) of fuel burned based upon the number of hours of operation and the manufacturers fuel consumption specifications.
2. For each day during which the permittee burns a fuel other than no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of any oil that is received for burning in this emission unit.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon approval by the Ohio EPA, Central District Office.

4. For each shipment of any oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

#### D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
  - a. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation limitations.
  - b. Any exceedance of the rolling 12-month maximum allowable cumulative hours of operation limitation.
  - c. Any exceedance of the sulfur content fuel restriction specified in Section B.3.

These reports are due by the date described in Part 1- General Terms and Condition of this permit under section (A)(2).

2. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than no. 2 fuel oil was burned in the emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which records were not maintained on the amount of no. 2 fuel oil combusted in the emissions unit. These reports are due by the date described in Part 1- General Terms and Condition of this permit under section (A)(2).

#### E. Testing Requirements

1. Compliance with the emission limitations and of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation: NO<sub>x</sub> emissions shall not exceed 13.5 lbs/hour.  
(855Hp X 7.17 g/ bHp-hr X ( 1 lb/454 g) = 13.5 lbs NO<sub>x</sub>/hr); The 7.17 g/bHp-hr emission factor is from emissions testing conducted by the manufacturer using USEPA testing methodologies.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 7E.

Emissions Unit ID: **B001**

- b. Emission Limitation: CO emissions shall not exceed 2.52 lbs/hour.  
 (855Hp X 1.34g/bHp-hr X ( 1 lb/454 g)= 2.52 lbs CO/hour); The 1.34 g/bHp-hr emission factor is from emissions testing conducted by the manufacturer using USEPA testing methodologies.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 10.

- c. Emission Limitation: VOC emissions shall not exceed 0.47 lb/hour.  
 (855Hp X 0.25g/bHp-hr X ( 1 lb/454 g) = 0.47 lb VOC/hour); The 0.25 g/bHp-hr emission factor is from emissions testing conducted by the manufacturer using USEPA testing methodologies.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 18.

- d. Emission Limitation: SO<sub>2</sub> emissions shall not exceed 0.0084 lbs/hour.  
 (855Hp X 0.00445 g/ bHp-hr X ( 1 lb/454 g)= 0.0084 lbs SO<sub>2</sub>/hr); The 0.00445 g/bHp-hr emission factor is from emissions testing conducted by the manufacturer using USEPA testing methodologies.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6C.

- e. Emission Limitations: The particulate emissions from the engine's exhaust shall not exceed 0.35 pound per million Btu of actual heat input.

Applicable Compliance Method: The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.4, Table 3.4-2 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.35 lb/mmBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.062 lb/mmBtu actual

heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

Emission Limitations: The particulate emissions from the engine's exhaust shall not exceed 0.062 pound per million Btu of actual heat input.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 5.

- f. Emission Limitation: Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method: If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

- g. Emission Limitations: PE shall not exceed 0.26 ton per rolling 12-month period; CO emissions shall not exceed 1.64 tons per rolling 12-month period ; VOC emissions shall not exceed 0.31 ton per rolling 12-month period; SO<sub>2</sub> emissions shall not exceed 0.005 ton per rolling 12-month period; and NO<sub>x</sub> emissions shall not exceed 8.78 tons per rolling 12-month period .

Applicable Compliance Method: Compliance with each rolling 12 month limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitations were calculated by multiplying the hourly limitation by 1300, and then dividing by 2000).

- h. Emission Limitation: The quality of the no. 2 fuel oil burned in this emissions unit shall meet a sulfur content which is equal to or less than 0.5 weight percent sulfur on an "as burned" basis.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping requirements pursuant to section C.2 above.

## **F. Miscellaneous Requirements**

None

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

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

- 1. 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>
B002 - 150 KW (201 HP) diesel fired generator	OAC rule 3745-31-05(A)(3)  OAC rule 3745-35-07(B)

	<u>Applicable Emissions Limitations/Control Measures</u>	
<p>OAC rule 3745-17-11(B)(5)(a)</p>	<p>Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 6.23 lbs/hour.</p> <p>Carbon monoxide (CO) emissions shall not exceed 1.37 lbs/hour.</p> <p>Volatile Organic Compound (VOC) emissions shall not exceed 0.5 lb/hour.</p> <p>Sulfur Dioxide (SO<sub>2</sub>) emissions shall not exceed 0.41 lb/hour.</p>	<p>and 6.23 tons per rolling 12-month period.</p> <p>The particulate emissions from the engine's exhaust shall not exceed 0.25 pound per million Btu of actual heat input. See Section A.2.b. below.</p> <p>The particulate emissions from the engine's exhaust shall not exceed 0.31 pound per million Btu of actual heat input. See Section A.2.c. below.</p> <p>Visible particulate emissions shall not exceed 20% opacity, as a six(6)-minute average, except as provided by the rule.</p>
<p>OAC rule 3745-17-07(A)(1)</p>	<p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-35-07(B), 3745-17-07(A)(1) and 3745-17-11(B)(5)(a)</p>	<p>See Section A.2.d. below.</p> <p>See Section A.2.e. below.</p> <p>See Section A.2.f. below.</p>
<p>OAC rule 3745-18-06(B)</p>	<p>Particulate emissions (PE) shall not exceed 0.44 ton per rolling</p>	
<p>OAC rule 3745-21-08(B)</p>	<p>12-month period.</p>	
<p>OAC rule 3745-23-06(B)</p>	<p>CO emissions shall not exceed and 1.37 tons per rolling 12-month period.</p>	
	<p>VOC emissions shall not exceed 0.5 ton per rolling 12-month period.</p>	
	<p>SO<sub>2</sub> emissions shall not exceed and 0.41 ton per rolling 12-month period.</p>	
	<p>NO<sub>x</sub> emissions shall not exceed</p>	

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

- 2.a** The hourly emissions limitations for this emissions unit were established to reflect the potential to emit. Therefore, with the exception of the fuel oil analysis, it is not necessary to develop additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulate emission limitation shall terminate on the date the U.S. EPA approves the 0.31 pound per million Btu of actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.d** OAC rule 3745-18-06(B) exempts stationary internal combustion engines which have rated heat input capacities equal to, or less than, 10 mmBtu/hr from the sulfur dioxide emission limit in OAC rule 3745-18-06(G). This emissions unit has a rated heat input of less than 10 MMBTU/hr.
- 2.e** The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

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

- 2.f** The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06(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 February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore no longer a part of the State regulations. However, that rule revision has not yet

Emissions Unit ID: **B002**

been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **B. Operational Restrictions**

1. The maximum annual operating hours for this emissions unit shall not exceed 2000 hours, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative operating hours in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	333
1-2	666
1-3	999
1-4	1332
1-5	1665
1-6	2000
1-7	2000
1-8	2000
1-9	2000
1-10	2000
1-11	2000
1-12	2000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual cumulative operating hour limitation shall be based upon a rolling, 12-month summation of the hours of operation.

2. The permittee shall burn only no. 2 fuel oil in this emissions unit.
3. The quality of the no. 2 fuel oil burned in this emissions unit shall meet a sulfur content which is equal to or less than 0.5 weight percent sulfur on an "as burned" basis.

## **C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain monthly records of the following information:
  - a. The operating hours for each month.
  - b. During the first 12 calendar months of operation, the permittee shall record the cumulative hours of operation for each calendar month.
  - c. The rolling, 12-month summation of the operating hours.
  - d. The type and amount (gallons or cubic feet) of fuel burned based upon the number of hours of operation and the manufacturers fuel consumption specifications.
2. For each day during which the permittee burns a fuel other than no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of any oil that is received for burning in this emission unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon approval by the Ohio EPA, Central District Office.

#### **D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
  - a. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours.
  - b. Any exceedance of the rolling 12-month maximum allowable cumulative operating hours.
  - c. Any exceedance of the sulfur content fuel restriction specified in Section B.3.

These reports are due by the date described in Part 1- General Terms and Condition of this permit under section (A)(2).

2. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than no. 2 fuel oil was burned in the emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which records were not maintained on the amount of no. 2 fuel oil combusted in the emissions unit. These reports are due by the date described in Part 1- General Terms and Condition of this permit under section (A)(2).

#### E. Testing Requirements

1. Compliance with the emission limitations and of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation: NO<sub>x</sub> emissions shall not exceed 6.23 lbs/hour.  
  
Applicable Compliance Method: Compliance shall be determined by multiplying the maximum engine horsepower (201 hp) by 0.031 (lb/hp-hr emission factor for NO<sub>x</sub> ; AP-42 10/96 Table 3.3-1). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 7E.
  - b. Emission Limitation: CO emissions shall not exceed 1.34 lbs/hour.  
  
Applicable Compliance Method: Compliance shall be determined by multiplying the maximum engine horsepower (201 hp) by 0.00668 (lb/hp-hr emission factor for CO ; AP-42 10/96 Table 3.3-1). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 10.
  - c. Emission Limitation: VOC emissions shall not exceed 0.5 lbs/hour.  
  
Applicable Compliance Method: Compliance shall be determined by multiplying the maximum engine horsepower (201 hp) by 0.00247 (lb/hp-hr emission factor for VOC; AP-42 10/96 Table 3.3-1). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 18.
  - d. Emission Limitation: SO<sub>2</sub> emissions shall not exceed 0.41 lb/hour.

Applicable Compliance Method: Compliance shall be determined by multiplying the maximum engine horsepower (201 hp) by 0.00205 (lb/hp-hr emission factor for SO<sub>x</sub>; AP-42 10/96 Table 3.3-1). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6C.

- e. Emission Limitation: The particulate emissions from the engine's exhaust shall not exceed 0.25 pound per million Btu of actual heat input.

Applicable Compliance Method: The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.25 lb/mmBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/mmBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

Emission Limitation: The particulate emissions from the engine's exhaust shall not exceed 0.31 pound per million Btu of actual heat input.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 5.

- f. Emission Limitation: Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method: If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

- g. Emission Limitations: NO<sub>x</sub> emissions shall not exceed 6.23 tons/year, CO emissions shall not exceed 1.37 tons/year, VOC emissions shall not exceed 0.5 ton/year, and SO<sub>2</sub> emissions shall not exceed 0.41 ton/year and PM emissions shall not exceed 0.44 ton/year.

Applicable Compliance Method: Compliance with these annual limitations shall be assumed as long as compliance with the hourly emissions limitations and annual hours of operation limitation is maintained (the annual limitations were calculated by multiplying by 2000, and then dividing by 2000).

- h. Emission Limitation: The quality of the no. 2 fuel oil burned in this emissions unit shall meet a sulfur content which is equal to or less than 0.5 weight percent sulfur on an "as burned" basis.

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping requirements pursuant to section C.3 above.

#### **F. Miscellaneous Requirements**

None

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

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

1. 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>	<u>Applicable Emissions Limitations/Control Measures</u>
F001- Material handling for asphalt plant.  (See Section A.2.a for identification of material handling operations)	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 0.49 ton per year.  No visible particulate emissions except for 3 minutes during any 60-minute period.  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust( See Sections A.2.b through A.2.d)

**2. Additional Terms and Conditions**

- 2.a The material handling operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:

All truck dumping operations  
 All conveyor transfer operations  
 All front end loader loading and unloading operations

- 2.b The permittee shall employ best available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:

<u>material handling operation(s)</u>	<u>control measure(s)</u>
All truck dumping operations moisture	maintain sufficient
All conveyor transfer operations moisture	maintain sufficient
All front end loader loading and unloading operations moisture	maintain sufficient

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.c** For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.
- 2.d** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

**B. Operational Restrictions**

None

**C. Monitoring and/or Record keeping Requirements**

- 1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

<u>material handling operation(s)</u>	<u>minimum inspection frequency</u>
All truck dumping operations	daily
All conveyor transfer operations	daily
All front end loader loading and unloading operations	daily

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
  - c. the dates the control measure(s) was (were) implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

#### **D. Reporting Requirements**

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

#### **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. Emissions Limitation: No visible particulate emissions except for 3 minutes during any 60-minute period

Applicable Compliance Method: Compliance with the visible emission limitation for RAP, sand, gravel and limestone material handling identified above 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, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

- b. Emissions Limitation: PE emissions shall not exceed 0.49 ton per year.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by the summation of emissions from the various material handling operations.

Material handling emissions are determined based upon the following equation as found in (AP-42, Fifth edition, Section 13.2.4)(1/95)

$$E = k(0.0032)(U/5)^{1.3}/(M/2)^{1.4} \text{ lbs/ton}$$

E = emission factor for aggregate unloading

k = particle size multiplier = 0.74 for PE

U = mean wind speed (mph) = 8.1

M = material moisture content = 4% for all materials except RAP(5%)

$$E = 0.74(0.0032)(8.1/5)^{1.3}/(4/2)^{1.4} \text{ lbs/ton} = 0.00168 \text{ lb of PE/ton.}$$

The total emissions from the material handling operations is determined by use of the above emission factor and the annual process weight rate for each material handling operations, as described below:

Material Handling Operation in Tons	Annual PWR in Tons	Annual Emissions
Dumping Course Aggregate	100,000	0.084
Dumping Fine Aggregate	58,000	0.049

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Dumping RAP	100,000	0.06
Dumping Limestone	60,000	0.05
Front end loader Course Aggregate	100,000	0.084
Front end loader Fine Aggregate	58,000	0.049
Front end loader RAP	100,000	0.06
Front end loader Limestone	60,000	0.05

Therefore, the total annual emissions from the load in/loadout activities equals 0.49 Tons.

**F. Miscellaneous Requirements**

None

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

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

- 1. 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>	<u>Applicable Emissions Limitations/Control Measures</u>
F002 - paved roadways and parking areas (see Section A.2.a)	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions shall not exceed 2.6 tons per year.</p> <p>No visible particulate emissions except for one minute during any 60-minute period.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.c and A.2.e through A.2.i).</p>
unpaved roadways and parking areas (see Section A.2.b)	OAC rule 3745-31-05(A)(3)	<p>No visible particulate emission except for 3 minutes during any 60-minute period.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.d through A.2.i).</p>

**2. Additional Terms and Conditions**

- 2.a The paved roadways and parking areas are covered by this permit and subject to the above-mentioned requirements.

- 2.b** The unpaved roadways and parking areas are covered by this permit and subject to the above-mentioned requirements.
- 2.c** The permittee shall employ best available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.d** The permittee shall employ best available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas with watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e** The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- 2.f** Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.
- 2.g** The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which

Emissions Unit ID: **F002**

such material has been deposited by trucking or earth moving equipment or erosion by water or other means.

- 2.h** Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- 2.i** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

**B. Operational Restrictions**

None

**C. Monitoring and/or Record keeping Requirements**

1. Except as otherwise provided in this section, the permittee shall perform inspections of the roadways and parking areas in accordance with the following frequencies:

<u>paved roadways and parking areas</u>	<u>minimum inspection frequency</u>
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All	daily
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<u>unpaved roadways and parking areas</u>	<u>minimum inspection frequency</u>
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All	daily
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2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
- the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;

- c. the dates the control measures were implemented; and
- d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

#### **D. Reporting Requirements**

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

#### **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. Compliance with the emission limitation for the paved and unpaved roadways and parking areas identified above 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, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.
  - b. Emissions Limitation: PE emissions shall not exceed 2.6 tons per year.

Applicable Compliance Method: Compliance with the annual emissions limitation

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shall be determined by the summation of particulate emissions from the paved roadways and unpaved roadways. The particulate emissions from the paved roadways are determined by using equation 1 found in Chapter 13.2.1.3(10/2002) of AP-42:

Paved roadways

$$E = k(s/2)^{0.65} (W/3)^{1.5}$$

where

E = emission factor lbs/VMT

k = particle size multiplier = 0.082

sL = silt loading on road surface = 5.2 g/m<sup>2</sup>

W = average vehicle weight (tons) = 23.4

$$E = 3.3219 \text{ lbs PM/VMT}$$

Taking into account the natural mitigation of all precipitation, where p equals 140,

$$E' = 3.3219 \text{ lbs PM/VMT} \left( \frac{365-p}{365} \right) = 2.05 \text{ lbs PM/VMT}$$

The maximum miles traveled per year equals 2,500 miles. Therefore, the particulate matter emissions from paved roadways are obtained by multiplying the total vehicle miles traveled per year with the derived emission factor of 2.00 lbs/VMT and dividing by 2,000 pounds per ton. The resulting uncontrolled emissions rate is then multiplied by a fugitive dust control factor of 95% (1-.95), resulting in a controlled emissions rate of 0.128 ton/yr. The 95% fugitive dust control factor is based upon the RACM document and the fugitive dust control measures identified in the application.

The particulate emissions from the unpaved roadways are determined by using equation 2 found in Chapter 13.2.2.2(09/1998) of AP-42:

Unpaved roadways

$$E = \left( \frac{365-p}{365} \right) k(s/12)^a (W/3)^b$$

E = emission factor lbs/VMT

k = particle size multiplier = 4.9

sL = silt loading on road surface = 5.95 g/m<sup>2</sup>

W = average vehicle weight (tons) = 24.3

a,b,c = constants from table 13.2.2-2; a= 0.7; b= 0.45;  
p = number of days with at least 0.01 inches of precipitation per year (140).

The maximum miles traveled per year equals 20,000 miles. Therefore, the particulate matter emissions from unpaved roadways are obtained by multiplying the total vehicle miles traveled per year with the derived emission factor of 4.65868 lbs/VMT and dividing by 2,000 pounds per ton. The resulting uncontrolled emissions rate is then multiplied by a fugitive dust control factor of 95% (1-.95), resulting in a controlled emissions rate of 2.33 tons/yr. The 95% fugitive dust control factor is based upon the RACM document and the fugitive dust control measures identified in the application.

#### Unpaved Parking

$$E = ( (365-p)/365) k(s/12)^a (W/3)^b$$

E = emission factor lbs/VMT

k = particle size multiplier = 4.9

sL = silt loading on road surface = 4.8 g/m<sup>2</sup>

W = average vehicle weight (tons) = 5

a,b,c = constants from table 13.2.2-2; a= 0.7; b= 0.45;

p = number of days with at least 0.01 inches of precipitation per year (140).

The maximum miles traveled per year equals 290 miles. Therefore, the particulate matter emissions from unpaved roadways are obtained by multiplying the total vehicle miles traveled per year with the derived emission factor of 2.00 lbs/VMT and dividing by 2,000 pounds per ton. The resulting uncontrolled emissions rate is then multiplied by a fugitive dust control factor of 95% (1-.95), resulting in a controlled emissions rate of 0.0145 ton/yr. The 95% fugitive dust control factor is based upon the RACM document and the fugitive dust control measures identified in the application.

#### Unpaved loadout area

$$E = ( (365-p)/365) k(s/12)^a (W/3)^b$$

E = emission factor lbs/VMT

k = particle size multiplier = 4.9

sL = silt loading on road surface = 4.8 g/m<sup>2</sup>

W = average vehicle weight (tons) = 5

a,b,c = constants from table 13.2.2-2; a= 0.7; b= 0.45;

p = number of days with at least 0.01 inches of precipitation per year (140).

The maximum miles traveled per year equals 850 miles. Therefore, the particulate matter emissions from unpaved roadways are obtained by multiplying the total vehicle miles traveled per year with the derived emission factor of 2.00 lbs/VMT and dividing by 2,000 pounds per ton. The resulting uncontrolled emissions rate is then multiplied by a fugitive dust control factor of 95% (1-.95), resulting in a controlled emissions rate of 0.125 ton/yr. The 95% fugitive dust control factor is based upon the RACM document and the fugitive dust control measures identified in the application.

The total PM emissions are therefore equal to 2.6 tons/yr. (the sum of the particulate emissions from paved roadways , unpaved loadout, unpaved parking and unpaved roadways)

#### **F. Miscellaneous Requirements**

None

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

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

- 1. 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>	<u>Applicable Emissions Limitations/Control Measures</u>
F003 - load-in and load-out of storage piles (see Section A.2.a for identification of storage piles)	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 1.11 tons per year.
wind erosion from storage piles (see Section A.2.a for identification of storage piles)		No visible emissions except for one minute in any hour.
		Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b, A.2.c, and A.2.f).
		No visible emission except for one minute in any hour.
		Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.1.2.d through A.1.2.f).

**2. Additional Terms and Conditions**

- 2.a The storage piles that are covered by this permit and subject to the requirements of OAC rule 3745-31-05 are listed below:

Course Aggregates

Recycled brick aggregates

## Fine Aggregates

## RAP

- 2.b** The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to minimizing the drop height of the front end loader bucket to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.c** The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.
- 2.d** The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to minimizing the height of the storage piles to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e** The above-mentioned control measure(s) shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) shall not be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.
- 2.f** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

**B. Operational Restrictions**

None

**C. Monitoring and/or Record keeping Requirements**

1. Except as otherwise provided in this section, the permittee shall perform inspections of each load-in operation at each storage pile in accordance with the following frequencies:

storage pile identification	minimum load-in inspection frequency
Course Aggregates	daily
RAP	daily
Recycled brick aggregates	daily
Fine Aggregates	daily

2. Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

<u>storage pile identification</u>	<u>minimum load-out inspection frequency</u>
Course Aggregates	daily
RAP	daily
Recycled brick aggregates	daily
Fine Aggregates	daily

3. Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile in accordance

with the following frequencies:

storage pile identification                      minimum wind erosion inspection frequency

Course Aggregates                                  daily

RAP    daily

Recycled brick aggregates                      daily

Fine Aggregates                                    daily

4. No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
5. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.
6. The permittee may, upon receipt of written approval from the Ohio EPA , Central District Office , modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
7. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. the dates the control measures were implemented; and

- d. on a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in 7.d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

#### **D. Reporting Requirements**

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

#### **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. Compliance with the visible emission limitations for the storage piles identified above 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, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.
  - b. Emissions Limitation: PE emissions shall not exceed 0.97 ton per year.

Applicable Compliance Method: Compliance with the annual emissions limitation

Emissions Unit ID: **F003**

shall be determined by the summation of emissions from the load in/load out of the storage piles and the emissions from wind erosion.

Sand/aggregate load-in/load-out emissions are determined based upon the following equation as found in (AP-42, Fifth edition, Section 13.2.4)(1/95)

$$E = k(0.0032)(U/5)^{1.3}/(M/2)^{1.4} \text{ lbs/ton}$$

E = emission factor for aggregate unloading

k = particle size multiplier = 0.74 for PE

U = mean wind speed (mph) = 8.1

M = material moisture content = 8% for all materials

$$E = 0.74(0.0032)(8.1/5)^{1.3}/(8/2)^{1.4} \text{ lbs/ton} = 0.000063623 \text{ lb PE/ton}$$

The total emissions from the load-in/loadout of the storage piles is determined by use of the above emission factor and the annual total process weight rate of 680,000 tons.

Therefore, the total annual emissions from the load in/loadout activities equals 0.216 ton.

Based upon the following equation, which follows from Section 13.2.4.3 of AP-42, the emissions due to wind erosion are calculated as follows

$$E = 1.7(s/1.5)((365-p)/235)(f/15)(365)(A/2000)$$

where E equals the emission factor in lbs/day/acre

s equals the silt content of the stored materials

p equals the number of days w more than 0.1 inch of precipitation

f equals the percentage of time the wind speed exceeds 12 mph

A equals the totals surface area of the specific storage pile

For each storage pile type, s equals 7 (fine aggregate), 10 (RAP), 2 (course aggregate), 2 (recycled brick aggregates), P equals 140 and f equals 9.9. Based upon the surface area of each storage pile type, the contribution to the total particulate emissions from each storage pile type is as follows:

Storage Pile	Acres	Annual Emissions in Tons
Fine Aggregate	0.5	0.46
RAP	0.15	0.196

Course aggregates 0.45	0.1176
recycled brick aggregates 0.45	0.1176

The total emissions from wind erosion are therefore 0.89 ton per year. Summation of the emissions due to load in/load out and wind erosion results in a total annual particulate emission rate of 1.11 tons.

**F. Miscellaneous Requirements**

None

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

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

1. 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>	<u>Applicable Emissions Limitations/Control Measures</u>
F004 - mineral extraction operations. (see Section A.2.b for identification of mineral extraction operations)	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 1.37 tons per year.  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b through A.2.d).  No visible emission except for three minutes in any hour.  No person shall cause or permit any fugitive dust source to be operated; or any materials to be handled, transported, or stored; or a building or its appurtenances or a road to be used, constructed, altered, repaired, or demolished without taking or installing reasonably available control measures to prevent fugitive dust from becoming airborne.

**2. Additional Terms and Conditions**

- 2.a The above annual particulate emission limitations were established to reflect the potential to emit for these emissions units. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with

these limits.

- 2.b The mineral extraction operations covered by this permit and subject to the above-mentioned requirements are listed below:

Overburden removal, loading and reclamation.

- 2.c The permittee shall employ best available control measures for the above-identified mineral extraction operation for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee shall commit to perform the following control measure(s) to ensure compliance:

<u>mineral extraction operation(s)</u>	<u>control measure(s)</u>
Overburden removal practices	Precautionary operating
Loading	Prevent haul vehicle overloading
Reclamation	Practice as expeditiously as possible

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.d For each mineral extraction operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the mineral extraction operation(s) until further observation confirms that use of the control measure(s) is unnecessary.
- 2.e Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

**B. Operational Restrictions**

None

### C. Monitoring and/or Record keeping Requirements

1. Except as otherwise provided in this section, for mineral extraction operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

<u>mineral extraction operation(s)</u>	<u>minimum inspection frequency</u>
Overburden removal and loading employed.	Each day mineral extraction operations are employed.

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the Ohio EPA, Central District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspection would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the dates the control measure(s) was (were) not implemented; and
  - c. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in 4.d shall be kept separately for each mineral extraction operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

### D. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of

an inspection, was not implemented.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

#### **E. Testing Requirements**

1. Compliance with the emission limitation specified in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:  
No visible emission except for three minutes in any hour.

Applicable Compliance Method:

If required, compliance shall be determined using 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, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

- b. Emission Limitation:  
Particulate emissions shall not exceed 1.37 tons per year from overburden removal processes.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the proposed maximum annual Overburden removal AP 42 table 11.9-4 (7/98) 0.07 lb/PE [0.058 topsoil removal + 0.012 replacement overburden] for ton removed and replaced \* 39,000 TPY displaced /2000 = 1.37 tons per year particulate emissions.

Compliance with the emission limit can be demonstrated through a one time calculation using the maximum throughputs (application submitted January 14, 2005) and emission factors found in AP-42.

#### **F. Miscellaneous Requirements**

None

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

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

1. 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>	<u>Applicable Emissions Limitations/Control Measures</u>
F005 - Crusher	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions shall not exceed 0.7 lb/hr and 3.33 tons per year.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See sections A.2.a through A.2.c.</p> <p>There shall be no visible PE from the crusher, except for a period of time not to exceed 6-minutes during any 60-minute observation period.</p> <p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart OOO.</p> <p>Visible emissions of fugitive dust shall not exceed 15% opacity except as provided by rule.</p>
	40 CFR Part 60, Subpart OOO	

### 2. Additional Terms and Conditions

- 2.a The permittee shall employ best available control measures for the above-identified material handling operation for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform

the following control measure to ensure compliance:

<u>material processing operation</u>	<u>control measure</u>
crusher	water spray

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.b** For each material handling operation that is not adequately enclosed, the above-identified control measure shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure is necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure shall continue during the operation of the material handling operation until further observation confirms that use of the control measure is unnecessary.
- 2.c** Implementation of the above-mentioned control measure in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

## **B. Operational Restrictions**

1. Water shall be applied at points necessary to ensure compliance with the visible emission limitations specified above for crushing.
2. The permittee shall operate the control device whenever this emission unit is in operation.

## **C. Monitoring and/or Record keeping Requirements**

1. The permittee shall perform daily checks when crushing equipment is in operation and when weather conditions allow, for any visible particulate emissions from the crushing operation. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operation log:
  - a. whether the emissions are representative of normal operations;
  - b. if the emissions are not representative of normal conditions, the cause of the

abnormal emissions;

- c. the total duration of any visible emission incident, and
- d. any corrective action taken to eliminate the visible emissions.

#### D. Reporting Requirements

1. The permittee shall submit semiannual reports which (a) identify all days during which any abnormal visible fugitive particulate emissions were observed from crushing operations and (b) describe any corrective actions taken to eliminate the abnormal visible fugitive particulate emissions. These reports shall be submitted to the Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
Particulate emissions shall not exceed 0.7 lb/hr.

Applicable Compliance Method: Compliance with the allowable mass emission rate for particulate emissions from the crusher shall be determined by multiplying an emission factor of 0.0054 pounds particulate emissions per ton of aggregate processed by the emission unit's maximum hourly throughput (140 tons). This emission factor is specified in USEPA reference document AP-42, fifth Edition Compilation of Air Pollution Emission Factors Section 11.19.2 table 11.19.2-2 (1/95). 0.0054 (lb/ton emission factor for TSP PE; AP-42 1/95 Table 11.19.2-2 \* 140 tons/hr (1/14/04 application) = 0.76 lb/hr.

- b. Emission Limitation:  
Particulate emissions shall not exceed 3.33 tons per year.

Applicable Compliance Method:

Compliance with these annual limitations shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitations were calculated by multiplying by 8760, and then dividing by 2000).

$0.7 \text{ lb of PE/hour} * 8760 \text{ hours} / 2000 = 3.33 \text{ tons per year of PE.}$

- c. Emission limitation:  
Visible emissions of fugitive dust shall not exceed 15% opacity.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for the crusher and transfer points in accordance with the following requirements:

- i. On or before the sixtieth day after the PTI is issued, but not later than 180 days after initial permit issuance, emissions testing shall be conducted.
- ii. The emission testing shall be conducted to demonstrate compliance with the opacity limitations.
- iii. The following test method shall be employed to demonstrate compliance with 40 CFR Part 60 Subpart OOO: 40 CFR Part 60, Appendix A, Method 9. 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 the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report,

where warranted, with prior approval from the Central District Office.

- d. Emissions Limitation-  
There shall be no visible PE from the crusher, except for a period of time not to exceed 6-minutes during any 60-minute observation period.

Compliance with the emission limitation for visible emissions from the crusher identified above 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, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

#### **F. Miscellaneous Requirements**

1. The following source is subject to the applicable provisions 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>(Subpart)</u>	<u>NSPS</u>	<u>Regulation</u>
F005	Primary Crusher (140 ton/hr)	Subpart OOO	

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 the 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. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC - Air Quality Modeling and Planning  
P.O. Box 1049

**Westfall Aggregates and Materials Inc**  
**PTI Application: 01-00010**  
**Issue**

**Facility ID: 0165010135**

**Emissions Unit ID: F005**

Columbus, OH 43216-1049

and  
Central District Office  
Division of Air Pollution Control  
3232 Alum Creek Drive  
Columbus, OH 43207



- 2.b** The permittee shall employ best available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:

material handling operation(s)

Load in or load out or any  
where combination of loading or  
emissions  
conveying

control measure(s)

Inherent moisture, application of water,  
necessary, to control particulate

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.c** For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.
- 2.d** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.
- 2.e** The above hourly and annual particulate emission limitations were established to reflect the potential to emit for these emissions units. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

**B. Operational Restrictions**

None

**C. Monitoring and/or Record keeping Requirements**

1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

<u>material handling operation(s)</u>	<u>minimum inspection frequency</u>
Load in, load out and conveying	Daily

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
  - c. the dates the control measure(s) was (were) implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

#### **D. Reporting Requirements**

1. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of

an inspection, was not implemented.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

#### **E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

Particulate emissions shall not exceed 2.53 lbs/hr. and 11.1 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by summing the calculated hourly emission rate for each conveying or handling or loading operation, these emission factors are specified in USEPA reference document AP-42, 11.19.2-2 (1/95). The resulting sum shall be multiplied by the maximum hourly production rate (400 tons/hr. PTI application, 1/14/05). See the following calculations:

Front end loader load in PTE =  $(0.001\text{\#PE/ton})(200\text{ ton/hr}) = 0.2\ \text{\# PE/hr}$   
 $(8760/2000) = 0.876\ \text{Ton per year.}$

Conveyor transfer points PTE =  $(0.000048\ \text{\#PM-10/ton})(2.1\text{\#TSP/\#PM-10})(200\text{ ton/hr})$

$(56) = 1.129\ \text{\#PE/hr}$   $(8760/2000) = 4.94\ \text{Tons per year.}$

Screening PTE =  $0.002\ \text{Lbs PE/ton}(200\ \text{TPH})(3\ \text{screens}) = 1.2\ \text{Lbs PE/hr}$   
 $(8760/2000) =$

$5.256\ \text{Tons per year.}$

Total PE :  $4.94 + 5.256 + 0.876 = 11.1\ \text{tons/year}$

- b. Emission Limitation:

Visible Emissions of fugitive dust shall not exceed 10% opacity, except as provided by rule.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for each conveying operation in accordance with the following requirements.

- i. On or after the sixtieth day after the PTI is issued, but not later than 180 days after PTI

issuance, emissions testing shall be conducted.

- ii. The emission testing shall be conducted to demonstrate compliance with the opacity limitation.
- iii. The following test method shall be employed to demonstrate compliance with the 40 CFR Part 60 Subpart OOO: 40 CFR Part 60, Appendix A, Method 9. 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 the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of these 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 Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Central District Office.

## **F. Miscellaneous Requirements**

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

**Westfall Aggregates and Materials Inc**  
**PTI Application: 01-00010**  
**Issue**

**Facility ID: 0165010135**

**Emissions Unit ID: F006**

	Source Description	NSPS Regulation (Subpart)
F006	Material handling, loading, screening, and conveying operations	Subpart OOO

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 the 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. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC - Air Quality Modeling and Planning  
P.O. Box 1049  
Columbus, OH 43216-1049

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**Westl**

**PTI A**

**Issued: 8/11/2005**

Emissions Unit ID: **F006**

and

Central District Office  
Division of Air Pollution Control  
3232 Alum Creek Drive  
Columbus, OH 43207

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

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

1. 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 - 300 TPH drum mix asphalt plant controlled by a baghouse.	OAC rule 3745-31-05(A)(3)

	40 CFR Part 60, Subpart I	<u>Applicable Emissions Limitations/Control Measures</u>
OAC rule 3745-35-07(B)		Carbon monoxide (CO) emissions shall not exceed 51.0 lbs/hr.
		Nitrogen Oxide (NO <sub>x</sub> ) emissions shall not exceed 9.6 lbs/hr.
		Sulfur Dioxide (SO <sub>2</sub> ) emissions shall not exceed 1.02 lbs/hr.
		Volatile Organic Compound (VOC) emissions shall not exceed 19.2 lbs/hr.
		PM-10 from the stack shall not exceed 0.03 gr/dscf .
		PE from the stack shall not exceed 0.03 gr/dscf .
		Emissions of fugitive PM-10 shall not exceed 1.53 pounds per hour.
		Fugitive particulate emissions shall not exceed 3.1 pounds per hour .
		Visible particulate emissions from the stack shall not exceed 10% opacity, as a 3-minute average.
		Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see section A.2.a).
OAC rule 3745-17-07(A)(1)		No visible emissions of fugitive dust from the enclosures for the hot aggregate elevator and vibrating
OAC rule 3745-17-11(B)(1)		
OAC rule 3745-18-06(E)		

**Westfall Aggregates and Materials Inc**  
**PTI Application: 01-00010**  
**Issue**

**Facility ID: 0165010135**

**Emissions Unit ID: P901**

screens.	(PE) from the stack shall not exceed 1.54 tons per rolling 12-month period.
Visible emissions of fugitive dust (from areas other than the enclosures for the hot aggregate elevator and vibrating screens.) shall be less than or equal to 10% opacity, as a 3-minute average.	PM-10 emissions from the stack shall not exceed 1.54 tons per rolling 12-month period.
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.	Fugitive PE shall not exceed 0.93 ton per rolling 12-month period.
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.	Fugitive PM-10 emissions shall not exceed 0.46 ton per rolling 12-month period.
The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B) and 40 CFR Part 60, Subpart I.	CO emissions shall not exceed 15.3 tons per rolling 12-month period.
See A.2.a-b below	VOC emissions shall not exceed 5.76 tons per rolling 12-month period.
Particulate emissions	SO <sub>2</sub> emissions shall not exceed 0.31 ton per rolling 12-month period.
	NO <sub>x</sub> emissions shall not exceed 2.88 tons per rolling 12-month period.
	The emissions limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

## 2. Additional Terms and Conditions

- 2.a** The permittee shall ensure that the baghouse is operated with sufficient air volume to eliminate visible fugitive emissions from the rotary drum.
- 2.b** The permittee has satisfied 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 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.

## B. Operational Restrictions

1. The pressure drop across the fabric filter shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.
2. The maximum annual asphalt production rate for this emissions unit shall not exceed 180,000 tons per year, based upon a rolling, 12-month summation of the production rates.

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

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Asphalt Production</u>
1	30,000
1-2	60,000
1-3	90,000
1-4	120,000
1-5	150,000
1-6	180,000

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1-7	180,000
1-8	180,000
1-9	180,000
1-10	180,000
1-11	180,000
1-12	180,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual asphalt production limitation shall be based upon a rolling, 12-month summation of the asphalt production.

3. The permittee shall burn only propane in this emissions unit.
4. The permittee shall operate and maintain the fuel burner in accordance with the manufacturer's recommendations to ensure efficient combustion of the fuel(s) and to ensure compliance with the applicable emission limitations for VOC, CO and NOx.
5. The permittee may substitute reclaimed asphalt pavement (RAP) in the raw material feed mix in amounts not to exceed 50 percent of all aggregate materials.
6. The exit of the stack serving this emissions unit shall be a minimum of 36 feet above ground.

### **C. Monitoring and/or Record keeping Requirements**

1. For each day during which the permittee burns a fuel other than propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the fabric filter while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fabric filter on daily basis.
3. 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 term F.2). An alternative form may be used upon approval of the appropriate Ohio EPA District Office or local air agency.

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4. 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 enclosures for the hot aggregate elevator, vibrating screens and weigh hopper 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 particulate emissions;
  - b. the cause of the visible particulate emissions;
  - c. the total duration of the visible particulate emission incident; and
  - d. corrective actions taken to eliminate the visible particulate emissions.

The permittee may, upon receipt of written approval from the Ohio EPA, Central District Office, modify the above-mentioned visible particulate emissions check frequency if operating experience indicates that less frequent checks would be sufficient to ensure compliance with the visible particulate emissions requirements.

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 visible particulate emissions from the stack, aggregate storage bins and cold aggregate elevator/conveyor serving this emissions unit. If abnormal visible emissions are observed, the permittee shall note the following in the operation log:
  - a. the color of the abnormal visible particulate emissions;
  - b. the cause of the abnormal visible particulate emissions;
  - c. the total duration of any abnormal visible particulate emissions incident; and
  - d. any corrective actions taken to eliminate the abnormal visible particulate emissions.

The permittee may, upon receipt of written approval from the Ohio EPA, Central District Office modify the above-mentioned visible particulate emissions check frequency if operating experience indicates that less frequent checks would be sufficient to ensure compliance with the visible particulate emissions requirements.

6. 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.

#### **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 date described in Part 1- General Terms and Condition of this permit under section (A)(2).
2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month asphalt production rate limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative asphalt production levels. These reports are due by the date described in Part 1 - 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 date described in Part 1- General Terms and Condition of this permit under section (A)(2).
4. The permittee shall submit annual reports which specify the total PM, SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by April 15 of each year.
5. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than propane was burned in this emissions unit. . Each report shall be submitted within 30 days after the deviation occurs.
6. 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, the aggregate storage bins, the rotary drum and cold aggregate elevator/conveyor serving this emissions unit, and (b)

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describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

7. The permittee shall submit a copy of the *Burner Tuning Reporting Form for Asphalt 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.

## E. Testing Requirements

1. Compliance with the emission limitations specified in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitations: PE shall not exceed 0.03 gr/dscf; VOC emissions shall not exceed 19.2 lbs/hr; CO emissions shall not exceed 51.0 lbs/hr; SO<sub>2</sub> emissions shall not exceed 1.02 lbs/hr; and NO<sub>x</sub> emissions shall not exceed 9.6 lbs/hr;

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 180 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 PM, VOC, 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 PM, 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 VOC, Methods 1-4 and 18 and or 25 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, unless otherwise specified or approved by the Ohio EPA, Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

- b. Emissions Limitation: PE from the stack emissions shall not exceed 1.54 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be based upon the results of the most recent emissions testing and the records required by term and condition C.6 above.

- c. Emission Limitation: VOC emissions shall not exceed 5.76 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be based upon the results of the most recent emissions testing and the records required by term and condition C.6 above.

- d. Emission Limitation: CO emissions shall not exceed 15.3 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be based upon the results of the most recent emissions testing and the records required by term and condition C.6 above.

- e. Emission Limitation: SO<sub>2</sub> emissions shall not exceed 0.31 ton per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be based upon the results of the most recent emissions testing and the records required by term and condition C.6 above.

- f. Emission Limitation: NO<sub>x</sub> emissions shall not exceed 2.88 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be based upon the results of the most recent emissions testing and the records required by term and condition C.6 above.

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

Applicable Compliance Method: Compliance shall be determined using Method 9 as set forth in 40 CFR Part 60 Appendix A, as such appendix existed on July 1, 1996 and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

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

Applicable Compliance Method: Compliance with the limitations on visible emissions of fugitive dust found in Section A.1 of this permit shall be demonstrated by the monitoring and record keeping in Section C.4.

- i. Emission Limitation: Visible emissions of fugitive dust (from areas other than the

enclosures for the hot aggregate elevator and vibrating screens) 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, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

- j. Emissions Limitation: PM-10 emissions from the stack shall not exceed 1.54 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be assumed as long as compliance is maintained with the rolling 12-month emissions limitation for particulate emissions.

- k. Emissions Limitation: Fugitive PM-10 emissions shall not exceed 0.46 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:

Total fugitive emissions equal the summation of the fugitives from the cold end and the hot end of the plant operations.

Fugitives emissions from the cold end are calculated as follows

$$((180,000 \text{ tons of material/year} \times 0.0024 \text{ lb PM-10/ton of material}) + (108,000 \text{ tons of aggregate/year} \times 0.0033 \text{ lb PM-10/ton of aggregate}) + (72,000 \text{ tons of sand/year} \times 0.00099 \text{ lb PM-10/ton of sand})) \times (1 \text{ ton}/2000 \text{ pounds}) = 0.43 \text{ tons of PM-10}$$

Fugitives emissions from the hot end are calculated as follows

$$(180,000 \text{ tons of asphalt produced} \times 0.0003 \text{ lb of PM-10/ton of asphalt produced}) \times (1 \text{ ton}/2000 \text{ pounds}) = 0.027 \text{ tons of PM-10.}$$

Total fugitive emissions are therefore 0.46 tons.

The emission factors in the above equations are derived from AP-42, Fifth

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edition, Table 11.12-2( 10/01) and from AP-42, Fifth edition, 11.1.2.5(12/00)

- I. Emissions Limitation: Fugitive PM emissions shall not exceed 0.93 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:

Total fugitive emissions equal the summation of the fugitives from the cold end and the hot end of the plant operations.

Fugitives emissions from the cold end are calculated as follows

$((180,000 \text{ tons of material/year} \times 0.0051 \text{ lb PM/ton of material}) + (108,000 \text{ tons of aggregate/year} \times 0.0069 \text{ lb PM/ton of aggregate}) + (72,000 \text{ tons of sand/year} \times 0.0021 \text{ lb PM/ton of sand})) \times (1 \text{ ton}/2000 \text{ pounds}) = 0.91 \text{ tons of PM}$

Fugitives emissions from the hot end are calculated as follows

$(180,000 \text{ tons of asphalt produced} \times 0.0003 \text{ lb of PM/ton of asphalt produced}) \times (1 \text{ ton}/2000 \text{ pounds}) = 0.027 \text{ tons of PM.}$

Total fugitive emissions are therefore 0.93 tons.

The emission factors in the above equations are derived from AP-42, Fifth edition, Table 11.12-2( 10/01) and from AP-42, Fifth edition, 11.1.2.5(12/00)

- m. Emission Limitations: Emissions of fugitive PM-10 shall not exceed 1.53 pounds per hour

Applicable Compliance Method: Compliance with this emissions limitation shall be assumed as long as compliance is maintained with the rolling 12-month operational restriction.

- n. Emission Limitations: Emissions of fugitive PM shall not exceed 3.1 pounds per hour .

Applicable Compliance Method: Compliance with this emissions limitation shall be assumed as long as compliance is maintained with the rolling 12-month operational restriction.

## 2. Burner Tuning

### a. Introduction

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

### b. Qualifications for Burner Tuning

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

### c. Portable Monitor Requirements

The permittee shall properly operate and maintain portable device(s) to monitor the concentration of 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 term 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 manufacture's recommendations. Record these values on the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form (as found in Section F.4) 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 Section 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 manufacture's specifications.
- iii. Using the calibrated monitor and the 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 110 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 110 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 110 percent of the pollutant baseline values.

- v. Once all of the measured stack exhaust gas values are within the 110 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.

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.

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	300 tph asphalt h 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:

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

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC- Air Quality Modeling and Planning

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Emissions Unit ID: **P901**

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

and

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Central District Office  
 Division of Air Pollution Control  
 3232 Alum Creek Drive  
 Columbus, OH 43207

2. The terms and conditions of this PTI are federally enforceable.
3. Modeling to demonstrate compliance with the Ohio EPA's Air Toxic Policy was not necessary since the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.
4. Burner Tuning Form (see next page)

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

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

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Fuel employed during tuning:  Natural Gas  #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 (%) <sup>2</sup>			
Asphalt Production (tons/hr)			

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

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

<sup>3</sup> If the burner did not require adjusting, please record N/A in the post tuning column.

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

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

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