

**Synthetic Minor Determination and/or**  **Netting Determination**

Permit To Install: **14-05754**

**A. Source Description**

This air permit-to-install for Atlas Roofing Corporation in Franklin, OH is for two asphalt blowing stills (emissions units P004 and P005), two heated flux asphalt storage tanks (emissions units T006 and T007) and a flux asphalt pre-heater (emissions unit B006). The asphalt blowing project is new to the Franklin plant as the facility currently receives deliveries of asphalt blown (oxidized) off-site.

**B. Facility Emissions and Attainment Status**

Facility-wide PTE in tons per year (TPY) after blow still project, considering OAC rules 3745-31-02(A) and 3745-31-05(A)(3) restrictions:

EU	NOx	CO	PE	SO2	OC	PM10
P001			0.96		5.52	0.96
P002			8.37		12.13	8.37
P901			100.31			100.31
P902			6.74			6.74
B006	6.32	3.64	0.34		0.38	0.34
B006(SO2)/						
P004/P005	3.49	17.15	9.27	24.99	2.91	9.27
T006/T007			0.37		8.86	0.37
Total	9.81	20.79	126.36	24.99	29.80	126.36

The facility is located in Warren County which is nonattainment for 8-hour ozone and PM2.5 and is classified attainment for all other pollutants.

**C. Source Emissions**

Facility-wide potential to emit (PTE) after blow still project, no restrictions, and at state/federal applicable regulatory limitations:

EU	NOx	CO	PE	SO2	OC	PM10	HAPs
P001			0.96		5.52	0.96	
P002			8.37		12.13	8.37	
P901			100.31		100.31		
P902			6.74			6.74	
B006	6.32	3.64	0.88	22.10	0.38	0.88	
P004/P005	13.96	63.90	128.16	145.49	10.73	128.16	
T006/T007			4.50		18.78	4.50	
Total	20.28	67.54	249.92	167.59	147.85	249.92	4.72

Facility-wide PTE in tons per year (TPY) after blow still project, considering OAC rules 3745-31-02(A) and 3745-31-05(A)(3) restrictions:

EU	NOx	CO	PE	SO2	OC	PM10
P001			0.96		5.52	0.96
P002			8.37		12.13	8.37
P901			100.31		100.31	
P902			6.74			6.74
B006	6.32	3.64	0.34		0.38	0.34
B006(SO2)/						
P004/P005	3.49	17.15	9.27	24.99	2.91	9.27
T006/T007			0.37		8.86	0.37
Total	9.81	20.79	126.36	24.99	29.80	126.36

This PTI includes an annual production limitation for oxidized asphalt produced in emissions units P004 and

P005, combined, and an annual fuel oil usage limitation for emissions units B006, P004 and P005, combined, in order to avoid State modeling for SO<sub>2</sub> and PM<sub>10</sub> emissions. Thus, the allowable emissions rates for the new project are less than the Ohio Significant Emissions Rates of 25 TPY SO<sub>2</sub> and 10 TPY PM<sub>10</sub> and the requirements to model the new emissions are avoided. The other Operational Restrictions on the blowing stills are a fuel oil sulfur limit (for limiting SO<sub>2</sub>) and a prohibition from using a ferric chloride catalyst (limiting HCl as a HAP).

Atlas has also proposed restrictions on the flux (prior to being oxidized) asphalt storage tanks (emissions units T006 and T007) to exempt the sources from the 40 CFR Part 60, Subpart Kb control requirements. Specifically, the tanks restrict the storage temperature of the asphalt, based on a monthly average, such that the resulting maximum true vapor pressure of the stored product will not exceed the 40 CFR Part 60, subpart Kb threshold levels. Monitoring and record keeping requirements are included. All requirements are being cited under OAC rule 3745-31-02(A) since resultant emissions are less than 10 TPY of OC.

Since the facility is already considered a Title V facility, we did not have to consider the Title V Major Source thresholds for this PTI. Since the facility PTE of particulate emissions (PE) after the blow still project, before considering any restrictions, did not exceed the Prevention of Significant Deterioration (PSD) threshold of 250 TPY, we did not have to consider avoiding PSD with restrictions. Since the facility-wide PTE of hazardous air pollutant (HAP) emissions, before considering the annual production restriction did not exceed the HAP Major Source emission threshold levels, we did not have to consider avoiding MACT Subpart LLLLL and, thus, the facility is a true minor source for HAP emissions.

However the facility is already a major stationary source for PM<sub>2.5</sub> and therefore this permitting action is a synthetic minor for PM<sub>2.5</sub> to avoid being subject to non-attainment review for PM<sub>2.5</sub>.

#### **D. Conclusion**

HCDOES recommends issuance of this PTI in draft State/Fed format because Atlas Roofing is a Title V Major facility and this a synthetic minor permitting action to avoid major modification at an already major stationary source for PM<sub>2.5</sub>.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL  
WARREN COUNTY**

**CERTIFIED MAIL**

Street Address:

Mailing Address:

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

Lazarus Gov.  
Center

**Application No:** 14-05754

**Fac ID:** 1483040201

**DATE:** 5/24/2007

Atlas Roofing Corporation  
Larry Overstreet  
2564 Valley Road  
Meridian, MS 39307-0000

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43216-1049.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$3200** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

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

CC: USEPA

HCDES

OH-KY-IN Regional Council of Gov.

KY

IN

**WARREN COUNTY**

PUBLIC NOTICE

ISSUANCE OF DRAFT PERMIT TO INSTALL **14-05754** FOR AN AIR CONTAMINANT SOURCE  
FOR **Atlas Roofing Corporation**

On 5/24/2007 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Atlas Roofing Corporation**, located at **675 Oxford Road, Franklin, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 14-05754:

**Installation of two (2) new asphalt blowing stills and associated new emissions units.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Brad Miller, Hamilton County Department of Environmental Services, 250 William Howart Taft Pkwy, Cincinnati, OH 45219-2660 [(513)946-7777]



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 14-05754**

Application Number: 14-05754  
Facility ID: 1483040201  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Atlas Roofing Corporation  
Person to Contact: Larry Overstreet  
Address: 2564 Valley Road  
Meridian, MS 39307-0000

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**675 Oxford Road  
Franklin, Ohio**

Description of proposed emissions unit(s):  
**Installation of two (2) new asphalt blowing stills and associated new emissions units.**

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

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Chris Korleski  
Director

## A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written

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reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - iv. If this permit is for an emissions unit located at a Title V facility, then each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## 2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

## 3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## 4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain,

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the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

## **6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. 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 or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## **7. 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 any permit-to-install. The

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permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

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**8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

**9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of

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the Ohio EPA. Progress reports shall contain the following:

- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
- ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

## **10. Permit-To-Operate Application**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

## **11. 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.

## **12. 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.

## **13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in

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**Atlas Roofing Corporation**  
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this permit.

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**B. State Only Enforceable Permit-To-Install General Terms and Conditions**

**1. Compliance Requirements**

The emissions unit(s) identified in this Permit 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 of state-only enforceable 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 state-only required 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 (i.e., postmarked) quarterly, 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. 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.

**4. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of

**Atlas Roofing Corporation****Facility ID: 1483040201****PTI Application: 14-05754****Issued: To be entered upon final issuance**

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.

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

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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.

**6. 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.

**7. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**8. Construction Compliance Certification**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) 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.

**9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**Atlas Roofing Corporation****Facility ID: 1483040201****PTI Application: 14-05754****Issued: To be entered upon final issuance****C. 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>
NOx	9.81
CO	20.79
PE	9.99
PM10/PM2.5	9.99
SO2	24.99
OC	12.15

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**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. 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.

**Operations, Property, and/or Equipment - (B006) - 10.1 millionBtu/hr natural gas and No. 2 fuel oil fired flux asphalt preheater**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	See terms and conditions A.I.2.b and A.II.1.
ORC 3704.03(T)(4)	See term and condition A.I.2.a.
OAC rule 3745-31-05(A)(3)	Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.54 lb/millionBtu of heat input from this emissions unit and 24.99 tons per year combined from emissions units B006, P004, and P005.  The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Dc for SO <sub>2</sub> .
40 CFR Part 60 Subpart Dc 60.42c(d)	The permittee shall not combust oil that contains greater than 0.5 weight percent sulfur.  See term and condition A.I.2.d.
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as specified by rule.
OAC rule 3745-17-10(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-02(A).
OAC rule 3745-18-06(D)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60 Subpart Dc [60.42c(d)].
OAC rule 3745-21-08(B)	See term and condition A.I.2.c.

Emissions Unit ID: B006

<p>OAC rule 3745-31-05(C)                  To avoid non-attainment review for PM2.5. Currently U.S. EPA has not revised new source review regulations to include PM2.5 pollutant and therefore until such time U.S. EPA generated guidance that one should treat all PM2.5 emissions as PM10. (and to avoid being subject to the State air dispersion modeling requirements)</p>	<p>Particulate matter 10 microns and less in diameter (PM10) shall not exceed 9.99 tons per year based upon a rolling, 12-month summation from emissions units B006, P004, P005, T006, T007, 300 gallon oil de-water tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iii), 6768 gallon waste oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv) and 15000 gallon No. 2 fuel oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv).</p> <p>See term and condition A.II.1.</p>
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**2. Additional Terms and Conditions**

- 2.a** The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the nitrogen oxides (NOx), carbon monoxide (CO) and volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for NOx, CO and VOC is less than ten tons per year each.
- 2.b** For the purposes of avoiding air dispersion modeling for PM10 emissions as denoted in Ohio EPA's Engineering Guide number 69, the permittee shall voluntarily restrict the PM10 emission rate for this emissions unit such that the rate shall not exceed 0.0075 lb of PM10/millionBtu when firing natural gas nor 0.014 lb of PM10/millionBtu when firing No. 2 fuel oil.
- 2.c** The permittee shall satisfy 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 (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

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. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision 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.d** Pursuant to 40 CFR 60.47c(c), emissions unit B006 is not subject to the

Emissions Unit ID: B006

particulate matter (PM) emission monitoring of 40 CFR 60.47c when firing liquid or gaseous fuels with potential sulfur dioxide emission rate of 0.54 lb/millionBtu of heat input or less.

- 2.e The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- 2.f The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) and particulate matter 10 microns and less in diameter (PM10) emissions from this air contaminant source since the calculated annual emission rate for PE and PM10 is less than ten tons per year taking into account the federally enforceable rule limit of 0.020 lb of PE per million Btu heat input under OAC rule 3745-17-10(B).
- 2.g Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emission limitations and fuel oil quality limitation.
- 2.h The pound per million Btu heat input emission limitation outlined in term A.1 is based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with this limitation.

**II. Operational Restrictions**

- 1. For the purposes of avoiding air dispersion modeling for SO2 and PM10 emissions as denoted in Ohio EPA's Engineering Guide number 69 and to avoid being a major modification at a current non-attainment major stationary source for PM10 emissions, the maximum annual oxidized asphalt production from emissions units P004 and P005, combined, shall not exceed 54,500 tons per year based upon a rolling, 12-month summation, when burning natural gas and no No. 2 fuel oil in the thermal oxidizer or emissions unit B006, or 49,700 tons oxidized asphalt per year based upon a rolling, 12-month summation, when burning natural gas in combination with no more than 101,860 gallons of No. 2 fuel oil per year based upon a rolling, 12-month summation in emissions units B006, P004, and P005, combined.

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

Table for no oil use during the first 12 months:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Asphalt Production, tons</u>
-----------------	--

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1	10,000
1-2	15,000
1-3	20,000
1-4	25,000
1-5	30,000
1-6	35,000
1-7	40,000
1-8	45,000
1-9	50,000
1-10	54,500
1-11	54,500
1-12	54,500

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 production rate.

Table of production limitations and oil use limitations for scenario where Number 2 oil is used during the first 12 months:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Asphalt Production, tons 2 Oil Use, Gallons</u>	<u>Maximum Allowable Cumulative Number</u>
1	10,000	20,000
1-2	15,000	40,000
1-3	20,000	60,000
1-4	25,000	80,000
1-5	30,000	100,000
1-6	35,000	100,000
1-7	40,000	100,000
1-8	45,000	100,000
1-9	49,700	100,000
1-10	49,700	100,000
1-11	49,700	100,000
1-12	49,700	101,860

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

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**III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain monthly records from emissions units B006, P004 and P005 combined, when burning natural gas and no No. 2 fuel oil in the thermal oxidizer or emissions unit B006, for each month:
  - a. whether No. 2 fuel is fired in this emissions unit and/or the thermal oxidizer controlling emissions units P004 and P005;
  - b. the oxidized asphalt production; and
  - c. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the oxidized asphalt production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative oxidized asphalt production rate for each month.

[Authority for term: OAC rules 3745-31-05(C) and 3745-31-02(A)]

2. The permittee shall maintain monthly records from emissions units B006, P004 and P005 combined, burning natural gas in combination with No. 2 fuel oil for each month:
  - a. the amount of No. 2 fuel oil fired in gallons;
  - b. the oxidized asphalt production;
  - c. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the amount of No. 2 fuel oil; and
  - d. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the oxidized asphalt production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative No. 2 fuel oil usage for each month.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative oxidized asphalt production rate for

Emissions Unit ID: B006

each month.

[Authority for term: OAC rules 3745-31-05(C) and 3745-31-02(A)]

3. The permittee shall maintain monthly records from emissions units B006, P004, P005, T006, T007, 300 gallon oil de-water tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iii), 6768 gallon waste oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv) and 15000 gallon No. 2 fuel oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv):
  - a. the rolling, 12-month summation of PM10 emissions.

[Authority for term: OAC rules 3745-31-05(C)]

4. For distillate oil-fired affected facilities with heat input capacities between 10 million Btu/hr and 100 million Btu/hr, compliance with the fuel oil sulfur limits may be determined based on a certification from the fuel supplier containing the following information and recorded by the owner or operator:
  - a. the name of the oil supplier; and
  - b. a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR Part 60 Subpart Dc; (60.41c).

All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

[Authority for term: 40 CFR Part 60 Subpart Dc; 60.48c(f)(1)]

5. The owner or operator of each distillate oil-fired affected facility shall record and maintain records of the amount of each fuel combusted during each day.

All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

[Authority for term: 40 CFR Part 60 Subpart Dc; (60.48c(g) and 60.48c(i)]

#### **IV. Reporting Requirements**

1. Pursuant to the NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
  - a. construction date (no later than 30 days after such date);
  - b. actual start-up date (within 15 days after such date); and

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

Reports are to be sent to:

Hamilton County Department of Environmental Services  
250 William Howard Taft Road  
Cincinnati, Ohio 45219

[Authority for term: 40 CFR Part 60 Subpart Dc; (60.48c(a)(1) and 60.48c(d)]

- 2. The permittee shall submit semiannual reports to the Hamilton County Department of Environmental Services that contain the records required in term and condition III.4. The reporting periods shall cover January 1 through June 30 and July 1 through December 31 of each year. All reports shall be submitted and postmarked by the 30th day following the end of the reporting period.

In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

[Authority for term: 40 CFR Part 60 Subpart Dc; (60.48(d), 60.48c(e)(1), 60.48(e)(11) and 60.48(j)]

- 3. The permittee shall submit annual reports that specify the PE, PM10, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year. The CAA, Title V Fee Emission Report (FER) required to be submitted annually by April 15 for the facility will also satisfy the emission reporting requirement of this condition.
- 4. The permittee shall submit deviation (excursion) reports that identifies all the exceedances:
  - a. any limitation listed in term and condition A.II.1; and
  - b. the rolling, 12-month summation of PM10 emissions listed in term A.I.1.

These reports shall be submitted in accordance with the general terms and conditions in this permit.

Emissions Unit ID: B006

## V. Testing Requirements

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

**Emission Limitation:**

No owner or operator of an affected facility shall combust oil that contains greater than 0.5 weight percent sulfur.

**Applicable Compliance Method:**

For distillate oil-fired affected facilities with heat input capacities between 10 million Btu/hr and 100 million Btu/hr, compliance with the fuel oil sulfur limits may be determined based on a certification from the fuel supplier containing the following information:

- a. the name of the oil supplier; and
- b. a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR Part 60 Subpart Dc; (60.41c).

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils" [incorporated by reference - see 40 CFR Part 60 Subpart A; (60.17)]

[Authority for term: 40 CFR Part 60 Subpart Dc; (60.42c(h)(1) and 60.48c(f)(1)]

**Emission Limitation:**

For the purposes of avoiding air dispersion modeling for PM10 emissions as denoted in Ohio EPA's Engineering Guide number 69, the permittee shall voluntarily restrict the PM10 emission rate for this emissions unit such that the rate shall not exceed 0.0075 lb of PM10/millionBtu when firing natural gas nor 0.014 lb of PM10/millionBtu when firing No. 2 fuel oil.

**Applicable Compliance Method:**

Compliance with the 0.0075 and 0.014 pound of PM10 per million Btu of actual heat input requirements shall be demonstrated by the PM (total) emission factor for Natural Gas Combustion in AP-42, Fifth Edition, Table 1.4-2 and by the Filterable PM emission factor for Distillate oil fired boilers < 100 Million Btu/hr in AP-42, Fifth Edition, Table 1.3-1., as calculated from the information contained in AP-42, as applicable:

- a.  $7.6 \text{ lbs of PM (total)}/10^6 \text{ scf of natural gas} \times 10^6 \text{ scf of natural gas}/1020 \text{ million Btu} = 0.0075 \text{ pound of particulate emissions per million Btu of actual heat input}$ ; and
- b.  $2 \text{ lbs of PM (filterable)}/10^3 \text{ gallons of distillate oil} \times 10^3 \text{ gallons of distillate oil}/140$

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million Btu = 0.014 pound of particulate emissions per million Btu of actual heat input.

The potential to emit PM/PM10 emissions for this emissions unit in order to avoid air dispersion modeling for PM10 emissions as denoted in Ohio EPA's Engineering Guide number 69 is based on the voluntary restriction:

$0.0075 \text{ lb of PM}_{10}/\text{millionBtu} \times 10.1 \text{ millionBtu/hr} \times 8760 \text{ hr/yr} \times 1 \text{ Ton}/2000 \text{ lbs} = 0.33 \text{ TPY of PM}_{10}$ , and

$0.014 \text{ lb of PM}_{10}/\text{millionBtu} \times 140 \text{ millionBtu}/10^3 \text{ gallons of distillate oil} \times 101.86 \text{ } 10^3 \text{ gallons of distillate oil/yr} \times 1 \text{ Ton}/2000 \text{ lbs} = 0.1 \text{ TPY of PM}_{10}$ .

[Authority for term: OAC rule 3745-31-02(A)]

**Emission Limitation:**

Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as specified by rule.

**Applicable Compliance Method:**

If required, compliance shall be determined through visible emission 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).

[Authority for term: OAC rule 3745-17-03(B)(1)(a)]

**Emission Limitation:**

The emissions of SO<sub>2</sub> shall not exceed 24.99 TPY, emissions units B006, P004 and P005, combined.

**Applicable Compliance Method:**

The annual allowable SO<sub>2</sub> emissions were developed from the following equations using the SO<sub>2</sub> emission factor provided by the permittee in an attachment, submitted 9/28/2006, to PTI Application 14-05754:

$0.86 \text{ lb of SO}_2/\text{ton of asphalt charged} \times 49,700 \text{ tons of asphalt charged/year} \times 1 \text{ Ton}/2000 \text{ lbs} = 21.37 \text{ TPY of SO}_2 \text{ emissions from emissions units P004 and P005, combined}$ ;

$142(0.5) \text{ lbs of SO}_2/\text{thousand gallons of fuel oil fired} \times 101.86 \text{ thousand gallons of fuel oil fired/year} \times \text{ton}/2000 \text{ lbs} = 3.62 \text{ TPY of SO}_2 \text{ emissions from emissions units B006,}$

Emissions Unit ID: B006

P004 and P005, combined; and

Total SO<sub>2</sub> = 24.99 TPY of SO<sub>2</sub> emissions.

[Authority for term: OAC rule 3745-31-05(A)(3)]

**Emission Limitations:**

Particulate emissions (PE), particulate matter 10 microns and less in diameter (PM<sub>10</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO) and volatile organic compound (VOC) emissions from this air contaminant source is less than ten tons per year each.

**Applicable Compliance Method:**

The uncontrolled potential to emit NO<sub>x</sub>, CO, and VOC emissions for this emissions unit, where no rule limits apply, are based on calculations using the fuel type resulting in the worst case annual emissions and the AP-42 emission factors (Fifth Edition, 7/98 and 9/98, Tables 1.3-1, 1.3-3, 1.4-1, and 1.4-2):

- a.  $10.1 \text{ millionBtu/hour} \times \text{thousand gallons of fuel oil fired} / 140 \text{ millionBtu} \times 20 \text{ lbs of NO}_x / \text{thousand gallons of fuel oil fired} \times 8760 \text{ hours/year} \times 1 \text{ Ton} / 2000 \text{ lbs} = 6.32 \text{ TPY of NO}_x$ ;
- b.  $10.1 \text{ millionBtu/hour} \times \text{million ft}^3 \text{ of natural gas} / 1020 \text{ millionBtu} \times 84 \text{ lbs of CO} / \text{million ft}^3 \text{ of natural gas} \times 8760 \text{ hours/year} \times 1 \text{ Ton} / 2000 \text{ lbs} = 3.64 \text{ TPY of CO}$ ; and
- c.  $10.1 \text{ millionBtu/hour} \times \text{million ft}^3 \text{ of natural gas} / 1020 \text{ millionBtu} \times 8.7 \text{ lbs of NMOC}^* / \text{million ft}^3 \text{ of natural gas} \times 8760 \text{ hr/yr} \times 1 \text{ Ton} / 2000 \text{ lbs} = 0.38 \text{ TPY of VOC}$

\*where NMOC = 11 lbs of TOC/million ft<sup>3</sup> of natural gas - 2.3 lb methane/million ft<sup>3</sup> of natural gas = 8.7 lb of NMOC/million ft<sup>3</sup> of natural gas.

2. Compliance with the fuel usage limitation in term and condition A.II.1 shall be demonstrated by the record keeping in Section A.III.

**VI. Miscellaneous Requirements**

None

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**B. State Only Enforceable Section**

**I. 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.

**Operations, Property, and/or Equipment - (B006) - 10.1 millionBtu/hr natural gas and No. 2 fuel oil fired flux asphalt preheater**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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.

**Operations, Property, and/or Equipment - (P004) - 24.3 TPH flux asphalt blow still No. 1 with thermal oxidizer (Egress Point ID B015; in common with EU P005)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	See term and condition A.I.2.a.
OAC rule 3745-31-05(A)(3)	<p>The emissions of sulfur dioxide (SO<sub>2</sub>) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 24.45 pounds per hour. The emissions of SO<sub>2</sub> from asphalt blowing, thermal oxidizer fuel burning and asphalt preheater fuel burning shall not exceed 24.99 TPY from emissions units B006, P004 and P005, combined.</p> <p>The emissions of carbon monoxide (CO) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 14.59 pounds per hour. The emissions of CO shall not exceed 16.25 TPY from emissions units P004 and P005, combined.</p> <p>The emissions of organic compounds (OC) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 2.45 pounds per hour. The emissions of OC shall not exceed 2.76 TPY from emissions units P004 and P005, combined.</p> <p>See terms and conditions A.I.2.c, A.II.1 through A.II.3.</p> <p>The requirements of this rule also include compliance with the appropriate requirements of 40 CFR Part 60, Subpart UU for this emissions unit.</p>

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OAC rule 3745-17-07(A)(1)	The visible emission limitation established by this rule is less stringent than the visible emission limitation established pursuant 40 CFR Part 60 Subpart UU; 60.472(b)(5).
OAC rule 3745-17-11(B)(1)	The emission limitation established by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60 Subpart UU for particulate matter.
OAC rule 3745-18-06(D)	The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3) for SO2 emissions.
40 CFR Part 60 Subpart UU 60.472(b)(1) and (b)(3)	Particulate matter emissions shall not exceed 1.3 lbs of PE per ton of asphalt charged to the still when a catalyst is added to the still.  Particulate matter emissions shall not exceed 1.2 lbs of PE per ton of asphalt charged to the still during blowing without a catalyst.
40 CFR Part 60 Subpart UU 60.472(b)(5)	See term and condition A.I.2.b.
OAC rule 3745-21-08(B)	See term and condition A.I.2.e.
OAC rule 3745-31-05(C) To avoid non-attainment review for PM2.5. Currently U.S. EPA has not revised new source review regulations to include PM2.5 pollutant and therefore until such time U.S. EPA generated guidance that one should treat all PM2.5 emissions as PM10. (and to avoid being subject to the State air dispersion modeling requirements)	Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 9.99 tons per year based upon a rolling, 12-month summation from emissions units B006, P004, P005, T006, T007, 300 gallon oil de-water tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iii), 6768 gallon waste oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv) and 15000 gallon No. 2 fuel oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv).  See term and condition A.II.2.

## 2. Additional Terms and Conditions

**2.a** Permit to Install 14-05754 for emissions units P004 and P005, combined, takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for PE/PM10 and NOx emissions:

- i. use of a thermal oxidizer to ensure the controlled potential PE/PM10 emissions are less than 10.0 tons per year; and
- ii. the maximum annual oxidized asphalt production from emissions units P004 and P005, combined, shall not exceed 54,500 tons per year, when

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burning natural gas and no No. 2 fuel oil in the thermal oxidizer, or 49,700 tons per year, when burning natural gas in combination with no more than 101,860 gallons of No.2 fuel oil per year in emissions units B006, P004 and P005, combined to ensure the controlled potential NOx emissions are less than 10.0 tons per year.

- 2.b** No owner or operator shall cause to be discharged into the atmosphere from any blowing still exhaust gases with an opacity greater than 0 percent unless an opacity limit for the blowing still when fuel oil is used to fire the afterburner has been established by the Administrator in accordance with the procedures in 40 CFR Section 60.474(g) and outlined below:

If fuel oil is to be used to fire an afterburner used to control emissions from a blowing still, the owner or operator may petition the Administrator in accordance with 40 CFR Section 60.11(e) of the General Provisions to establish an opacity standard for the blowing still that will be the opacity standard when fuel oil is used to fire the afterburner. To obtain this opacity standard, the owner or operator must request the Administrator to determine opacity during an initial, or subsequent, performance test when fuel oil is used to fire the afterburner. Upon receipt of the results of the performance test, the Administrator will make a finding concerning compliance with the mass standard for the blowing still. If the administrator finds that the facility was in compliance with the mass standard during the performance test but failed to meet the zero opacity standard, the Administrator will establish and promulgate in the Federal Register an opacity standard for the blowing still that will be the opacity standard when fuel oil is used to fire the afterburner. When the afterburner is fired with natural gas, the zero percent opacity remains the applicable opacity standard.

- 2.c** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a thermal oxidizer, and compliance with the SO<sub>2</sub>, OC and CO emission limitations, the operational restrictions associated with those emission limitations and the visible emission limitation.
- 2.d** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- 2.e** The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices"

Emissions Unit ID: P004

required pursuant to OAC rule 3745-21-08 by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

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. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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.

## **II. Operational Restrictions**

1. The permittee shall restrict the maximum sulfur content for fuel oil combusted (thermal oxidizer fuel burning) in emissions units P004 and P005 to 0.5 weight percent of sulfur.
2. For the purposes of avoiding air dispersion modeling for SO<sub>2</sub> and PM<sub>10</sub> emissions as denoted in Ohio EPA's Engineering Guide number 69 and to avoid being a major modification at a current non-attainment major stationary source for PM<sub>10</sub> emissions, the maximum annual oxidized asphalt production from emissions units P004 and P005, combined, shall not exceed 54,500 tons per year based upon a rolling, 12-month summation, when burning natural gas and no No. 2 fuel oil in the thermal oxidizer or emissions unit B006, or 49,700 tons oxidized asphalt per year based upon a rolling, 12-month summation, when burning natural gas in combination with no more than 101,860 gallons of No. 2 fuel oil per year based upon a rolling, 12-month summation in emissions units B006, P004, and P005, combined.
3. The permittee shall not use the catalyst ferric chloride in emissions units P004 and P005.

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

1. The permittee shall maintain monthly records from emissions units B006, P004 and P005 combined, when burning natural gas and no No. 2 fuel oil in the thermal oxidizer or emissions unit B006, for each month:
  - a. whether No. 2 fuel is fired in this emissions unit and/or the thermal oxidizer controlling emissions units P004 and P005;
  - b. the oxidized asphalt production; and
  - c. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the oxidized asphalt production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative oxidized asphalt production rate for

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each month..

[Authority for term: OAC rules 3745-31-05(C), 3745-31-05(A)(3) and 3745-31-02(A)]

2. The permittee shall maintain monthly records from emissions units B006, P004 and P005 combined, burning natural gas in combination with No. 2 fuel oil for each month:
  - a. the amount of No. 2 fuel oil fired in gallons;
  - b. the oxidized asphalt production;
  - c. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the amount of No. 2 fuel oil; and
  - d. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the oxidized asphalt production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative No. 2 fuel oil usage for each month.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative oxidized asphalt production rate for each month.

[Authority for term: OAC rules 3745-31-05(C), 3745-31-05(A)(3) and 3745-31-02(A)]

3. The permittee shall maintain monthly records from emissions units B006, P004, P005, T006, T007, 300 gallon oil de-water tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iii), 6768 gallon waste oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv) and 15000 gallon No. 2 fuel oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv):
  - a. the rolling, 12-month summation of PM10 emissions.

[Authority for term: OAC rules 3745-31-05(C)]

4. The permittee shall maintain monthly records indicating the use of ferric chloride or any other catalyst in emissions units P004 and/or P005. If no catalysts are used, the permittee shall indicate so in the monthly records.

[Authority for term: OAC rule 3745-31-05(A)(3)]

5. Compliance with the oil quality specification in term and condition A.II.1 shall be determined by using analytical results provided by the permittee or oil supplier for each

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shipment of oil, or, the weighted, arithmetic average of the analytical results provided by the permittee or oil supplier for all shipments of oil during each calendar month. The permittee shall maintain records of the analytical results for a period of two years.

[Authority for term: OAC rule 3745-31-05(A)(3)]

6. The permittee shall continuously monitor and record the temperature in the combustion zone of the afterburner. The monitoring instrument shall have an accuracy of +/- 10 deg. C (+/- 18 deg. F) over its range. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) with any modifications deemed necessary by the permittee.

The permittee shall collect and calculate the average combustion temperature, in the combustion zone of the thermal incinerator, for each of the eight 3-hour blocks of time during each day of operation, and shall record and maintain the following information each day:

- a. all 3-hour blocks of time, when the emissions unit was in operation, during which the average combustion temperature in the combustion zone of the thermal incinerator was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance; and
- b. a log of the downtime for the capture (collection) system, thermal incinerator, and monitoring equipment when the associated emissions unit was in operation.

These records shall be maintained at the facility for a period of two years. Whenever the monitored value for the temperature in the combustion zone of the thermal incinerator deviates from the minimum temperature specified in A.III.6.a above, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of the deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable temperature range specified in A.III.6.a above, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The

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permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the 3-hour average combustion temperature immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The minimum temperature value in the combustion zone of the thermal incinerator is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the minimum temperature value in the combustion zone of the thermal incinerator based upon information obtained during future emissions tests that demonstrate compliance with the allowable PE and/or OC emissions rates for this emissions unit. In addition, approved revisions to the minimum temperature value in the combustion zone of the thermal incinerator will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

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[Authority for term: 40 CFR Part 60 Subpart UU; 60.473(b) and OAC rule 3745-31-02(A)]

8. The permittee shall calculate the annual emissions of SO<sub>2</sub>, CO and OC from the records maintained in terms III.1, III.2 and III.5 at the end of each calendar year.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identifies all the exceedances:
  - a. any limitation listed in term and condition A.II.1 and 2;
  - b. the rolling, 12-month summation of PM<sub>10</sub> emissions listed in term A.I.1.

These reports shall be submitted in accordance with the general terms and conditions in this permit.

[Authority for term: OAC rules 3745-31-05(C), 3745-31-05(A)(3) and 3745-31-02(A)]

2. The permittee shall submit annual deviation (excursion) reports that identify all occurrences when the catalyst ferric chloride was used in this emissions unit. These reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 of each calendar year and shall cover the previous 12-month period (January through December). If no deviations occurred during the reporting period, the permittee shall state so in the report.

[Authority for term: OAC rule 3745-31-05(A)(3)]

3. The permittee shall submit annual reports consisting of the following information:
  - a. the calendar dates covered in the reporting period; and
  - b. the certification(s) from the fuel supplier as compiled in Part III, Term A.III.5 above.

The reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 of each calendar year and shall cover the previous 12-month period (January through December).

[Authority for term: OAC rule 3745-31-05(A)(3)]

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4. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time, when the emissions unit was in operation, when the 3-hour average combustion temperature in the combustion zone of the thermal incinerator was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance;
  - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
  - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the 3-hour average combustion temperature in the combustion zone into compliance with the acceptable range, was determined to be necessary as was not taken; and
  - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

The reports shall be submitted to the Hamilton County Department of Environmental Services by January 31, April 30, July 31 and October 31 of each calendar year and shall cover the previous calendar quarter (October through December, January through March, April through June, and July through September, respectively).

[Authority for term: OAC rule 3745-31-05(A)]

- 5 Pursuant to the NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
  - a. construction date (no later than 30 days after such date);
  - b. actual start-up date (within 15 days after such date); and
  - c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Hamilton County Department of Environmental Services  
250 William Howard Taft Road

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Cincinnati, Ohio 45219

## **V. Testing Requirements**

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

Emission Limitations:

Particulate matter emissions shall not exceed 1.3 lb of per ton of asphalt charged to the still when a catalyst is added to the still.

Particulate matter emissions shall not exceed 1.2 lb of PE per ton of asphalt charged to the still during blowing without a catalyst.

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Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit, (the common control device emissions point, "Blow Stills thermal oxidizer") in accordance with the following requirements:

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the mass emission voluntary restriction for PE in pound per ton of asphalt charged and pound per hour values and the mass emission voluntary restriction for OC in pound per ton of asphalt charged and pound per hour values.
- c. The following test method(s) shall be employed to demonstrate compliance with the mass emission rate(s):

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

for OC, Methods 1-4, and 25 or 25(A) of 40 CFR Part 60, Appendix A

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

- i. the owner or operator shall determine compliance with the PE standard, in pound per ton of asphalt charged, as follows:
  - (a) the emission rate (E) of PE shall be computed for each run using the following equation:

$$E=(c_s Q_{sd})/(PK)$$

where:

E = emission rate of PE, kg/Mg (lb/ton)

$c_s$  = concentration of PE, g/dscm (gr/dscf)

$Q_{sd}$  = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)

P = asphalt charging rate, Mg/hr (ton/hr)

K = conversion factor, 1000 g/kg [7000 (gr/lb)]

Method 5A shall be used to determine the particulate matter concentration ( $c_s$ ) and volumetric flow rate ( $Q_{sd}$ ) of the effluent gas. For a blowing still, the sampling time and sample volume for each

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run shall be at least 90 minutes or the duration of the coating blow or non-coating blow, whichever is greater, and 2.25 dscm (79.4 dscf).

- (b) For the blowing stills, the asphalt charging rate (P) shall be computed for each run using the following equation:

$$P = (Vd)/(K' \theta)$$

where:

P = asphalt charging rate to blowing stills, Mg/hr (ton/hr)

V = volume of asphalt charged, m<sup>3</sup> (ft<sup>3</sup>)

d = density of asphalt, kg/m<sup>3</sup> (lb/ft<sup>3</sup>)

K' = conversion factor, 1000 kg/Mg (2000 lb/ton)

θ = duration of test run, hr

The volume (V) of asphalt charged shall be measured by any means accurate to within 10 percent. The density (d) of the asphalt shall be computed using the following equation:

$$d = K_1 - K_2 T_i$$

where:

d = density of asphalt, kg/m<sup>3</sup> (lb/ft<sup>3</sup>)

K<sub>1</sub> = 1056.1 kg/m<sup>3</sup> (metric units) = 64.70 lb/ft<sup>3</sup> (English units)

K<sub>2</sub> = 0.6176 kg/(m<sup>3</sup> °C) (metric units) = 0.0694 lb/(ft<sup>3</sup> °F) (English units)

T<sub>i</sub> = temperature at the start of the blow, °C (°F)

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 appropriate Ohio EPA District Office or local air agency.

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

Emissions Unit ID: P004

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

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

The permittee shall use the monitoring device in 40 CFR Part 60 Subpart UU; 60.473(b), and Term and Condition A.III.6, to monitor and record continuously the temperature during the particulate matter run(s) and shall report the results to the Administrator with the performance test results.

If, at a later date, the permittee believes that the emission limit in 40 CFR Part 60 Subpart UU; 60.472(b) are being met even though one of the conditions listed below exist, the permittee may submit a written request to the Administrator to repeat the performance test and procedure outlined in 40 CFR Part 60 Subpart UU; 60.474(c) and Term and Condition A.V.1:

the temperature measured in accordance with 40 CFR Part 60 Subpart UU; 60.473(b) and Term and Condition A.III.6.a is lower than that measured during the performance test.

[Authority for term: 40 CFR Part 60 Subpart UU; 60.474(e) and (f)(2)]

#### Emission Limitations:

The emissions of sulfur dioxide (SO<sub>2</sub>) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 24.45 pounds per hour. The emissions of SO<sub>2</sub> from asphalt blowing, thermal oxidizer fuel burning and asphalt preheater fuel burning shall not exceed 24.99 TPY from emissions units B006, P004 and P005, combined.

#### Applicable Compliance Method:

If required, compliance with the allowable mass emission rate(s) for SO<sub>2</sub> in pound per ton of asphalt charged and pound per hour shall be determined by employing test Method 6 or 6A from 40 CFR Part 60, Appendix A.

The hourly and annual allowable SO<sub>2</sub> emissions established through BAT were developed from the following equations using the SO<sub>2</sub> emission factor provided by the permittee in an attachment, submitted 9/28/2006, to PTI Application 14-05754:

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$[0.86 \text{ lb of SO}_2/\text{ton of asphalt charged} \times 24.3 \text{ tons of asphalt charged/hour}] + [142(0.5) \text{ lbs of SO}_2/1000 \text{ gallons of fuel oil burned} \times 50 \text{ gallons of fuel oil burned/hour}] = 24.45 \text{ lbs of SO}_2/\text{hr};$

$0.86 \text{ lb SO}_2/\text{ton of asphalt charged} \times 49,700 \text{ tons of asphalt charged/year} \times 1 \text{ Ton}/2000 \text{ lbs} = 21.37 \text{ TPY of SO}_2 \text{ from emissions units P004 and P005, combined; added to}$

$142(0.5) \text{ lbs of SO}_2/\text{thousand gallons of fuel oil burned} \times 101.86 \text{ thousand gallons of fuel oil burned/year} \times 1 \text{ Ton}/2000 \text{ lbs} = 3.62 \text{ TPY of SO}_2 \text{ from emissions units B006, P004 and P005, combined}]$

Total SO<sub>2</sub> = 24.99 TPY of SO<sub>2</sub>.

[Authority for term: OAC rule 3745-31-05(A)(3)]

**Emission Limitations:**

The emissions of carbon monoxide (CO) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 14.59 pounds per hour. The emissions of CO shall not exceed 16.25 TPY from emissions units P004 and P005, combined.

**Applicable Compliance Method:**

If required, compliance with the allowable mass emission rate(s) for CO in pound per hour shall be determined by employing test Method 10 from 40 CFR Part 60, Appendix A.

The hourly and annual allowable CO emissions established through BAT were developed from the following equations using the CO emission factor provided by the permittee in an attachment, submitted 9/28/2006, to PTI Application 14-05754:

$[0.590 \text{ lb of CO/ton of asphalt charged} \times 24.3 \text{ tons of asphalt charged/hour}] + [5 \text{ lbs of CO/thousand gallons of fuel oil burned} \times 50 \text{ gallons of fuel oil burned/hour}] = 14.59 \text{ lbs of CO/hour from emissions units P004 and P005, combined}$

$0.590 \text{ lb CO/ton of asphalt charged} \times 54,500 \text{ tons of asphalt charged/year} \times 1 \text{ Ton}/2000 \text{ lbs} = 16.08 \text{ TPY of CO from emissions units P004 and P005, combined.}$

[Authority for term: OAC rule 3745-31-05(A)(3)]

**Emission Limitations:**

The emissions of organic compounds (OC) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 2.45 pounds per hour. The emissions of OC shall not

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exceed 2.76 TPY from emissions units P004 and P005, combined.

**Applicable Compliance Method:**

The hourly and annual allowable OC emissions established through BAT were developed from the following equations using the OC emission factor provided by the permittee in an attachment, submitted 9/28/2006, to PTI Application 14-05754:

$[0.10 \text{ lb of OC/ton of asphalt charged} \times 24.3 \text{ tons of asphalt charged/hour}] + [0.34 \text{ lb OC/thousand gallons of fuel oil burned} \times 50 \text{ gallons of fuel oil burned/hour}] = 2.45 \text{ lbs of OC/hour.}$

$0.10 \text{ lb of OC/ton of asphalt charged} \times 54,500 \text{ tons of asphalt charged/year} \times 1 \text{ Ton/2000 lbs} = 2.73 \text{ TPY of OC from emissions units P004 and P005, combined.}$

**Emission Limitation:**

less than 10.0 TPY PE/PM10 emissions.

**Applicable Compliance Method:**

The annual PE/PM10 emissions were developed from the following equations using the information submitted by the permittee on 9/28/2006 as a supplement to PTI Application 14-05754, submitted in August 2005:

$0.34 \text{ lb of PE/ton of asphalt charged} \times 54,500 \text{ tons of asphalt charged/year} \times 1 \text{ Ton/2000 lbs} = 9.27 \text{ TPY of PE/PM10 from emissions units P004 and P005, combined.}$

**Emission Limitation:**

less than 10.0 TPY of NOx emissions.

**Applicable Compliance Method:**

The annual NOx emissions were developed from the following equations using the information submitted by the permittee on 9/28/2006 as a supplement to PTI Application 14-05754, submitted in August 2005:

$0.12 \text{ lb of NOx/ton of asphalt charged} \times 54,500 \text{ tons of asphalt charged/year} \times 1 \text{ Ton/2000 lbs} = 3.27 \text{ TPY of NOx from emissions units P004 and P005, combined.}$

**Emission Limitation:**

No owner or operator shall cause to be discharged into the atmosphere from any blowing still exhaust gases with an opacity greater than 0 percent

**Applicable Compliance Method:**

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9. The visible emissions observations shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

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[Authority for term: 40 CFR Part 60, Subpart UU; 60.474(c)(5), OAC rule 3745-31-05(A)(3)]

2. Compliance with the sulfur limitation in term and condition A.II.1 shall be demonstrated by the record keeping in term and condition A.III.5.
3. Compliance with the production limitation and fuel usage limitation in term and condition A.II.2 shall be demonstrated by the record keeping in terms and conditions A.III.1 and A.III.2.
4. Compliance with the operational restriction in term and condition A.II.3 shall be demonstrated by the record keeping in term and condition A.III.4.

**VI. Miscellaneous Requirements**

None

Emissions Unit ID: P004

**B. State Only Enforceable Section****I. 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.

**Operations, Property, and/or Equipment - (P004) - 24.3 TPH flux asphalt blow still No. 1 with thermal oxidizer (Egress Point ID B015; in common with EU P005)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for emissions units P004 and P005, combined, was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN3 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN3 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: hydrogen chloride

TLV (mg/m3): 2.198

Maximum Hourly Emission Rate (lbs/hr): 0.97

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 20.67

MAGLC (ug/m3): 52.33

The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per

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ORC 3704.03(F)(4)(d), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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.

**Operations, Property, and/or Equipment - (P005) - 24.3 TPH flux asphalt blow still No. 2 with thermal oxidizer (Egress Point ID B015; in common with EU P004)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	See term and condition A.I.2.a.
OAC rule 3745-31-05(A)(3)	<p>The emissions of sulfur dioxide (SO<sub>2</sub>) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 24.45 pounds per hour. The emissions of SO<sub>2</sub> from asphalt blowing, thermal oxidizer fuel burning and asphalt preheater fuel burning shall not exceed 24.99 TPY from emissions units B006, P004 and P005, combined.</p> <p>The emissions of carbon monoxide (CO) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 14.59 pounds per hour. The emissions of CO shall not exceed 16.25 TPY from emissions units P004 and P005, combined.</p> <p>The emissions of organic compounds (OC) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 2.45 pounds per hour. The emissions of OC shall not exceed 2.76 TPY from emissions units P004 and P005, combined.</p> <p>See term and condition A.I.2.c, A.II.1 through A.II.3.</p>
OAC rule 3745-17-07(A)(1)	The visible emission limitation established by this rule is less stringent than the visible emissions limitation established pursuant 40 CFR Part 60 Subpart UU; 60.472(b)(5).
OAC rule 3745-17-11(B)(1)	The emissions limitation established by this rule is less stringent than the emissions limitation established pursuant to 40 CFR Part 60 Subpart UU for PE.

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OAC rule 3745-18-06(D)	The emissions limitation established by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3) for SO <sub>2</sub> emissions.
40 CFR Part 60 Subpart UU 60.472(b)(1) and (b)(3)	Particulate matter emissions shall not exceed 1.3 lb PE per ton of asphalt charged to the still when a catalyst is added to the still. Particulate matter emissions shall not exceed 1.2 lb PE per ton of asphalt charged to the still during blowing without a catalyst.
40 CFR Part 60 Subpart UU 60.472(b)(5)	See term and condition A.I.2.b.
OAC rule 3745-21-08(B)	See term and condition A.I.2.e.
OAC rule 3745-31-05(C) To avoid non-attainment review for PM <sub>2.5</sub> . Currently U.S. EPA has not revised new source review regulations to include PM <sub>2.5</sub> pollutant and therefore until such time U.S. EPA generated guidance that one should treat all PM <sub>2.5</sub> emissions as PM <sub>10</sub> . (and to avoid being subject to the State air dispersion modeling requirements)	Particulate matter emissions 10 microns and less in diameter (PM <sub>10</sub> ) shall not exceed 9.99 tons per year based upon a rolling, 12-month summation from emissions units B006, P004, P005, T006, T007, 300 gallon oil de-water tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iii), 6768 gallon waste oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv) and 15000 gallon No. 2 fuel oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv).  See term and condition A.II.2.

## 2. Additional Terms and Conditions

**2.a** Permit to Install 14-05754 for emissions units P004 and P005, combined, takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for PE/PM<sub>10</sub> and NO<sub>x</sub> emissions:

- i. use of a thermal oxidizer to ensure the controlled potential PE/PM<sub>10</sub> emissions are less than 10.0 tons per year; and
- ii. the maximum annual oxidized asphalt production from emissions units P004 and P005, combined, shall not exceed 54,500 tons per year, when burning natural gas and no No. 2 fuel oil in the thermal oxidizer, or 49,700 tons per year, when burning natural gas in combination with no more than 101,860 gallons of No.2 fuel oil per year in emissions units B006, P004 and P005, combined to ensure the controlled potential NO<sub>x</sub> emissions are less than 10.0 tons per year.

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- 2.b** No owner or operator shall cause to be discharged into the atmosphere from any blowing still exhaust gases with an opacity greater than 0 percent unless an opacity limit for the blowing still when fuel oil is used to fire the afterburner has been established by the Administrator in accordance with the procedures in 40 CFR Section 60.474(g) and outlined below:

If fuel oil is to be used to fire an afterburner used to control emissions from a blowing still, the owner or operator may petition the Administrator in accordance with 40 CFR Section 60.11(e) of the General Provisions to establish an opacity standard for the blowing still that will be the opacity standard when fuel oil is used to fire the afterburner. To obtain this opacity standard, the owner or operator must request the Administrator to determine opacity during an initial, or subsequent, performance test when fuel oil is used to fire the afterburner. Upon receipt of the results of the performance test, the Administrator will make a finding concerning compliance with the mass standard for the blowing still. If the administrator finds that the facility was in compliance with the mass standard during the performance test but failed to meet the zero opacity standard, the Administrator will establish and promulgate in the Federal Register an opacity standard for the blowing still that will be the opacity standard when fuel oil is used to fire the afterburner. When the afterburner is fired with natural gas, the zero percent opacity remains the applicable opacity standard.

- 2.c** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a thermal oxidizer, and compliance with the SO<sub>2</sub>, OC and CO emission limitations, the operational restrictions associated with those emission limitations and the visible emission limitation.
- 2.d** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- 2.e** The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

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. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's

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State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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.

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**II. Operational Restrictions**

1. The permittee shall restrict the maximum sulfur content for fuel oil combusted (thermal oxidizer fuel burning) in emissions units P004 and P005 to 0.5 weight percent of sulfur.
2. For the purposes of avoiding air dispersion modeling for SO<sub>2</sub> and PM<sub>10</sub> emissions as denoted in Ohio EPA's Engineering Guide number 69 and to avoid being a major modification at a current non-attainment major stationary source for PM<sub>10</sub> emissions, the maximum annual oxidized asphalt production from emissions units P004 and P005, combined, shall not exceed 54,500 tons per year based upon a rolling, 12-month summation, when burning natural gas and no No. 2 fuel oil in the thermal oxidizer or emissions unit B006, or 49,700 tons oxidized asphalt per year based upon a rolling, 12-month summation, when burning natural gas in combination with no more than 101,860 gallons of No. 2 fuel oil per year based upon a rolling, 12-month summation in emissions units B006, P004, and P005, combined.
3. The permittee shall not use the catalyst ferric chloride in emissions units P004 and P005.

**III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain monthly records from emissions units B006, P004 and P005 combined, when burning natural gas and no No. 2 fuel oil in the thermal oxidizer or emissions unit B006, for each month:
  - a. whether No. 2 fuel is fired in this emissions unit and/or the thermal oxidizer controlling emissions units P004 and P005;
  - b. the oxidized asphalt production; and
  - c. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the oxidized asphalt production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative oxidized asphalt production rate for each month..

[Authority for term: OAC rules 3745-31-05(C), 3745-31-05(A)(3) and 3745-31-02(A)]

2. The permittee shall maintain monthly records from emissions units B006, P004 and P005 combined, burning natural gas in combination with No. 2 fuel oil for each month:

Emissions Unit ID: P005

- a. the amount of No. 2 fuel oil fired in gallons;
- b. the oxidized asphalt production;
- c. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the amount of No. 2 fuel oil; and
- d. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the oxidized asphalt production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative No. 2 fuel oil usage for each month.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative oxidized asphalt production rate for each month.

[Authority for term: OAC rules 3745-31-05(C), 3745-31-05(A)(3) and 3745-31-02(A)]

3. The permittee shall maintain monthly records from emissions units B006, P004, P005, T006, T007, 300 gallon oil de-water tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iii), 6768 gallon waste oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv) and 15000 gallon No. 2 fuel oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv):
  - a. the rolling, 12-month summation of PM10 emissions.

[Authority for term: OAC rules 3745-31-05(C)]

4. The permittee shall maintain monthly records indicating the use of ferric chloride or any other catalyst in emissions units P004 and/or P005. If no catalysts are used, the permittee shall indicate so in the monthly records.

[Authority for term: OAC rule 3745-31-05(A)(3)]

5. Compliance with the oil quality specification in Term and Condition A.II.1 shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil, or, the weighted, arithmetic average of the analytical results provided by the permittee or oil supplier for all shipments of oil during each calendar month. The permittee shall maintain records of the analytical results for a period of two years.

[Authority for term: OAC rule 3745-31-05(A)(3)]

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6. The permittee shall continuously monitor and record the temperature in the combustion zone of the afterburner. The monitoring instrument shall have an accuracy of +/- 10 deg. C (+/- 18 deg. F) over its range. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) with any modifications deemed necessary by the permittee.

The permittee shall collect and calculate the average combustion temperature, in the combustion zone of the thermal incinerator, for each of the eight 3-hour blocks of time during each day of operation, and shall record and maintain the following information each day:

- a. all 3-hour blocks of time, when the emissions unit was in operation, during which the average combustion temperature in the combustion zone of the thermal incinerator was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance; and
- b. a log of the downtime for the capture (collection) system, thermal incinerator, and monitoring equipment when the associated emissions unit was in operation.

These records shall be maintained at the facility for a period of two years. Whenever the monitored value for the temperature in the combustion zone of the thermal incinerator deviates from the minimum temperature specified in A.III.6.a above, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of the deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable temperature range specified in A.III.6.a above, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the 3-hour average combustion temperature immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the

Emissions Unit ID: P005

requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The minimum temperature value in the combustion zone of the thermal incinerator is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the minimum temperature value in the combustion zone of the thermal incinerator based upon information obtained during future emissions tests that demonstrate compliance with the allowable PE and/or OC emissions rates for this emissions unit. In addition, approved revisions to the minimum temperature value in the combustion zone of the thermal incinerator will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: 40 CFR Part 60 Subpart UU; 60.473(b) and OAC rule 3745-31-02(A)]

8. The permittee shall calculate the annual emissions of SO<sub>2</sub>, CO and OC from the records maintained in terms III.1, III.2 and III.5 at the end of each calendar year.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identifies all the exceedances:
  - a. any limitation listed in term and condition A.II.1 and 2;
  - b. the rolling, 12-month summation of PM<sub>10</sub> emissions listed in term A.I.1.

These reports shall be submitted in accordance with the general terms and conditions in this permit.

[Authority for term: OAC rules 3745-31-05(C), 3745-31-05(A)(3) and 3745-31-02(A)]

2. The permittee shall submit annual deviation (excursion) reports that identify all occurrences when the catalyst ferric chloride was used in this emissions unit. These reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 of each calendar year and shall cover the previous 12-month period (January through December). If no deviations occurred during the reporting period, the permittee shall state so in the report.

[Authority for term: OAC rule 3745-31-05(A)(3)]

3. The permittee shall submit annual reports consisting of the following information:

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- a. the calendar dates covered in the reporting period; and
- b. the certification(s) from the fuel supplier as compiled in Part III, Term A.III.5 above.

The reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 of each calendar year and shall cover the previous 12-month period (January through December).

[Authority for term: OAC rule 3745-31-05(A)(3)]

4. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time, when the emissions unit was in operation, when the 3-hour average combustion temperature in the combustion zone of the thermal incinerator was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance;
  - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
  - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the 3-hour average combustion temperature in the combustion zone into compliance with the acceptable range, was determined to be necessary as was not taken; and
  - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

The reports shall be submitted to the Hamilton County Department of Environmental Services by January 31, April 30, July 31 and October 31 of each calendar year and shall cover the previous calendar quarter (October through December, January through March, April through June, and July through September, respectively).

[Authority for term: OAC rule 3745-31-05(A)]

- 5 Pursuant to the NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:

Emissions Unit ID: P005

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

Reports are to be sent to:

Hamilton County Department of Environmental Services  
250 William Howard Taft Road  
Cincinnati, Ohio 45219

## **V. Testing Requirements**

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

Emission Limitations:

Particulate matter emissions shall not exceed 1.3 lb of per ton of asphalt charged to the still when a catalyst is added to the still.

Particulate matter emissions shall not exceed 1.2 lb PE per ton of asphalt charged to the still during blowing without a catalyst.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit, (the common control device emissions point, "Blow Stills thermal oxidizer") in accordance with the following requirements:

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the mass emission voluntary restriction for PE in pound per ton of asphalt charged and the pound per hour values and the mass emission voluntary restriction for OC in pound per ton of asphalt charged and the pound per hour values.
- c. The following test method(s) shall be employed to demonstrate compliance with the mass emission rate(s):

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

for OC, Methods 1-4, and 25 or 25(A) of 40 CFR Part 60, Appendix A

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

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- i. the owner or operator shall determine compliance with the PE standard, in pound per ton of asphalt charged, as follows:

- (a) the emission rate (E) of PE shall be computed for each run using the following equation:

$$E = (c_s Q_{sd}) / (PK)$$

where:

E = emission rate of PE, kg/Mg (lb/ton)

$c_s$  = concentration of PE, g/dscm (gr/dscf)

$Q_{sd}$  = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)

P = asphalt charging rate, Mg/hr (ton/hr)

K = conversion factor, 1000 g/kg [7000 (gr/lb)]

Method 5A shall be used to determine the particulate matter concentration ( $c_s$ ) and volumetric flow rate ( $Q_{sd}$ ) of the effluent gas. For a blowing still, the sampling time and sample volume for each run shall be at least 90 minutes or the duration of the coating blow or non-coating blow, whichever is greater, and 2.25 dscm (79.4 dscf).

- (b) For the blowing stills, the asphalt charging rate (P) shall be computed for each run using the following equation:

$$P = (Vd) / (K' \theta)$$

where:

P = asphalt charging rate to blowing stills, Mg/hr (ton/hr)

V = volume of asphalt charged, m<sup>3</sup> (ft<sup>3</sup>)

d = density of asphalt, kg/m<sup>3</sup> (lb/ft<sup>3</sup>)

K' = conversion factor, 1000 kg/Mg (2000 lb/ton)

$\theta$  = duration of test run, hr

The volume (V) of asphalt charged shall be measured by any means accurate to within 10 percent. The density (d) of the asphalt shall be computed using the following equation:

$$d = K_1 - K_2 T_i$$

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where:

$d$  = density of asphalt,  $\text{kg}/\text{m}^3$  ( $\text{lb}/\text{ft}^3$ )

$K_1 = 1056.1 \text{ kg}/\text{m}^3$  (metric units) =  $64.70 \text{ lb}/\text{ft}^3$  (English units)

$K_2 = 0.6176 \text{ kg}/(\text{m}^3 \text{ } ^\circ\text{C})$  (metric units) =  $0.0694 \text{ lb}/(\text{ft}^3 \text{ } ^\circ\text{F})$  (English units)

$T_i$  = temperature at the start of the blow,  $^\circ\text{C}$  ( $^\circ\text{F}$ )

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 appropriate Ohio EPA District Office or local air agency.

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

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

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

The permittee shall use the monitoring device in 40 CFR Part 60 Subpart UU; 60.473(b), and Term and Condition A.III.6, to monitor and record continuously the temperature during the particulate matter run(s) and shall report the results to the Administrator with the performance test results.

If, at a later date, the permittee believes that the emission limit in 40 CFR Part 60 Subpart UU; 60.472(b) are being met even though one of the conditions listed below exist, the permittee may submit a written request to the Administrator to repeat the performance test and procedure outlined in 40 CFR Part 60 Subpart UU; 60.474(c) and Term and Condition A.V.1:

the temperature measured in accordance with 40 CFR Part 60 Subpart UU; 60.473(b) and Term and Condition A.III.6.a is lower than that measured during the performance

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test.

[Authority for term: 40 CFR Part 60 Subpart UU; 60.474(e) and (f)(2)]

**Emission Limitations:**

The emissions of sulfur dioxide (SO<sub>2</sub>) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 24.45 pounds per hour. The emissions of SO<sub>2</sub> from asphalt blowing, thermal oxidizer fuel burning and asphalt preheater fuel burning shall not exceed 24.99 TPY from emissions units B006, P004 and P005, combined.

**Applicable Compliance Method:**

If required, compliance with the allowable mass emission rate(s) for SO<sub>2</sub> in pound per ton of asphalt charged and pound per hour shall be determined by employing test Method 6 or 6A from 40 CFR Part 60, Appendix A.

The hourly and annual allowable SO<sub>2</sub> emissions established through BAT were developed from the following equations using the SO<sub>2</sub> emission factor provided by the permittee in an attachment, submitted 9/28/2006, to PTI Application 14-05754:

$[0.86 \text{ lb of SO}_2\text{/ton of asphalt charged} \times 24.3 \text{ tons of asphalt charged/hour}] + [142(0.5) \text{ lbs of SO}_2\text{/1000 gallons of fuel oil burned} \times 50 \text{ gallons of fuel oil burned/hour}] = 24.45 \text{ lbs of SO}_2\text{/hr;}$

$0.86 \text{ lb SO}_2\text{/ton of asphalt charged} \times 49,700 \text{ tons of asphalt charged/year} \times 1 \text{ Ton/2000 lbs} = 21.37 \text{ TPY of SO}_2\text{ from emissions units P004 and P005, combined; added to}$

$142(0.5) \text{ lbs of SO}_2\text{/thousand gallons of fuel oil burned} \times 101.86 \text{ thousand gallons of fuel oil burned/year} \times 1 \text{ Ton/2000 lbs} = 3.62 \text{ TPY of SO}_2\text{ from emissions units B006, P004 and P005, combined}]$

Total SO<sub>2</sub> = 24.99 TPY of SO<sub>2</sub>.

[Authority for term: OAC rule 3745-31-05(A)(3)]

**Emission Limitations:**

The emissions of carbon monoxide (CO) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 14.59 pounds per hour. The emissions of CO shall not exceed 16.25 TPY from emissions units P004 and P005, combined.

Emissions Unit ID: P005

**Applicable Compliance Method:**

If required, compliance with the allowable mass emission rate(s) for CO in pound per hour shall be determined by employing test Method 10 from 40 CFR Part 60, Appendix A.

The hourly and annual allowable CO emissions established through BAT were developed from the following equations using the CO emission factor provided by the permittee in an attachment, submitted 9/28/2006, to PTI Application 14-05754:

$[0.590 \text{ lb of CO/ton of asphalt charged} \times 24.3 \text{ tons of asphalt charged/hour}] + [5 \text{ lbs of CO/thousand gallons of fuel oil burned} \times 50 \text{ gallons of fuel oil burned/hour}] = 14.59 \text{ lbs of CO/hour from emissions units P004 and P005, combined}$

$0.590 \text{ lb CO/ton of asphalt charged} \times 54,500 \text{ tons of asphalt charged/year} \times 1 \text{ Ton/2000 lbs} = 16.08 \text{ TPY of CO from emissions units P004 and P005, combined.}$

[Authority for term: OAC rule 3745-31-05(A)(3)]

**Emission Limitations:**

The emissions of organic compounds (OC) from asphalt blowing and thermal oxidizer fuel burning shall not exceed 2.45 pounds per hour. The emissions of OC shall not exceed 2.76 TPY from emissions units P004 and P005, combined.

**Applicable Compliance Method:**

The hourly and annual allowable OC emissions established through BAT were developed from the following equations using the OC emission factor provided by the permittee in an attachment, submitted 9/28/2006, to PTI Application 14-05754:

$[0.10 \text{ lb of OC/ton of asphalt charged} \times 24.3 \text{ tons of asphalt charged/hour}] + [0.34 \text{ lb OC/thousand gallons of fuel oil burned} \times 50 \text{ gallons of fuel oil burned/hour}] = 2.45 \text{ lbs of OC/hour.}$

$0.10 \text{ lb of OC/ton of asphalt charged} \times 54,500 \text{ tons of asphalt charged/year} \times 1 \text{ Ton/2000 lbs} = 2.73 \text{ TPY of OC from emissions units P004 and P005, combined.}$

**Emission Limitation:**

less than 10.0 TPY PE/PM10 emissions.

**Applicable Compliance Method:**

The annual PE/PM10 emissions were developed from the following equations using the information submitted by the permittee on 9/28/2006 as a supplement to PTI Application 14-05754, submitted in August 2005:

$0.34 \text{ lb of PE/ton of asphalt charged} \times 54,500 \text{ tons of asphalt charged/year} \times 1 \text{ Ton/2000 lbs} = 9.27 \text{ TPY of PE/PM10 from emissions units P004 and P005, combined.}$

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Emission Limitation:  
less than 10.0 TPY of NOx emissions.

Applicable Compliance Method:

The annual NOx emissions were developed from the following equations using the information submitted by the permittee on 9/28/2006 as a supplement to PTI Application 14-05754, submitted in August 2005:

$0.12 \text{ lb of NOx/ton of asphalt charged} \times 54,500 \text{ tons of asphalt charged/year} \times 1 \text{ Ton}/2000 \text{ lbs} = 3.27 \text{ TPY of NOx from emissions units P004 and P005, combined.}$

Emission Limitation:

No owner or operator shall cause to be discharged into the atmosphere from any blowing still exhaust gases with an opacity greater than 0 percent

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9. The visible emissions observations shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.

[Authority for term: 40 CFR Part 60, Subpart UU; 60.474(c)(5), OAC rule 3745-31-05(A)(3)]

2. Compliance with the sulfur limitation in term and condition A.II.1 shall be demonstrated by the record keeping in term and condition A.III.5.
3. Compliance with the production limitation and fuel usage limitation in term and condition A.II.2 shall be demonstrated by the record keeping in terms and conditions A.III.1 and A.III.2.
4. Compliance with the operational restriction in term and condition A.II.3 shall be demonstrated by the record keeping in term and condition A.III.4.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. 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.

**Operations, Property, and/or Equipment - (P005) - 24.3 TPH flux asphalt blow still No. 2 with thermal oxidizer (Egress Point ID B015; in common with EU P004)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

- 1. The permit to install for emissions units P004 and P005, combined, was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN3 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN3 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: hydrogen chloride  
 TLV (mg/m3): 2.198  
 Maximum Hourly Emission Rate (lbs/hr): 0.97  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 20.67  
 MAGLC (ug/m3): 52.33

The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per

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ORC 3704.03(F)(4)(d), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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.

**Operations, Property, and/or Equipment -(T006) - Flux Tank 1 - 374,000 gallon heated asphalt flux fixed roof storage tank with submerged filling**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	See term and condition A.I.2.a.
OAC rule 3745-21-09(L)(1)	See term and condition A.I.2.b.
OAC rule 3745-21-09(L)(4)	See term and condition A.I.2.c.
40 CFR Part 60 Subpart Kb	See term and condition A.I.2.d.
40 CFR Part 60 Subpart UU 60.472(c)	See term and condition A.I.2.f.
OAC rule 3745-31-05(A)(3)	<p>Organic Compound (OC) emissions from emission units T006 and T007 combined shall not exceed 8.86 tons per year (TPY).</p> <p>See terms and conditions A.I.2.e and A.II.1.</p> <p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart Kb, 40 CFR Part 60 Subpart UU and OAC rule 3745-21-09(L).</p>

Emissions Unit ID: T006

<p>OAC rule 3745-31-05(C) To avoid non-attainment review for PM2.5. Currently U.S. EPA has not revised new source review regulations to include PM2.5 pollutant and therefore until such time U.S. EPA generated guidance that one should treat all PM2.5 emissions as PM10. (and to avoid being subject to the State air dispersion modeling requirements)</p>	<p>Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 9.99 tons per year based upon a rolling, 12-month summation from emissions units B006, P004, P005, T006, T007, 300 gallon oil de-water tank exempt pursuant to OAC rule 3745-31-03(A)(1)(l)(iii), 6768 gallon waste oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(l)(iv) and 15000 gallon No. 2 fuel oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(l)(iv).</p> <p>See term and condition A.II.1.</p>
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## 2. Additional Terms and Conditions

- 2.a** Permit to Install 14-5754 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for particulate emissions (PE):
- i. the use of a fiberglass air filter to passively control condensible organic PE from the storage tank.
- 2.b** This emissions unit is exempt from the vapor control equipment requirements since the petroleum liquid stored product, as outlined in permit to install application 14-05754 submitted August 3, 2005, does not have a true vapor pressure greater than 1.52 pound per square inch absolute.
- 2.c** If an owner or operator places, stores, or holds in a fixed roof tank, that is not exempted pursuant to paragraph (L)(2) of OAC rule 3745-21-09, any petroleum liquid with a true vapor pressure which is greater than 1.52 pounds per square inch absolute and such tank does not comply with the requirements of paragraph (L)(1) of OAC rule 3745-21-09, the owner or operator shall so notify the Hamilton County Department of Environmental Services within thirty days of becoming aware of the occurrence.
- 2.d** The permittee has proposed to avoid the control requirements pursuant to 40 CFR Part 60, Subpart Kb by voluntarily restricting the hot asphalt storage temperature. Restricting the storage temperature will, in turn, restrict the maximum true vapor pressure of the flux asphalt stored to less than 5.2 kPa. The permittee has proposed to determine compliance with the voluntary vapor pressure restriction by monitoring and recording the storage temperature and

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determining the flux asphalt vapor pressure pursuant to the requirements in 40 CFR Part 60, Section 60.116b(e)(1) and using the "Clausius-Clapeyron Treatment of Vapor Pressure Data" outlined in Owens Corning's "Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading", 1999 to calculate the vapor pressure.

- 2.e** To ensure the maximum true vapor pressure of the stored material does not exceed 5.2 kPa, the monthly average maximum storage temperature of the flux asphalt stored in this tank shall not exceed 390 degrees Fahrenheit.

[Authority for term: OAC rule 3745-31-05(A)]

- 2.f** Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, no owner or operator subject to the provisions of 40 CFR Part 60, Subpart UU shall cause to be discharged into the atmosphere from any asphalt storage tank exhaust gases with opacity greater than 0 percent, except for one consecutive 15-minute period when the transfer lines are being blown for clearing.

The control device shall not be bypassed during this 15-minute period. If, however, the emissions from any asphalt storage tank(s) are ducted to a control device for a saturator, the combined emissions shall meet the emission limitation contained in paragraph (a) of Section 60.472 during the time the saturator control device is operating. At any other time the asphalt storage tank(s) must meet the opacity limit specified above for storage tanks.

[Authority for term: 40 CFR Part 60, Section 60.472(c)]

- 2.g** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

- 2.h** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emission limitation, asphalt storage temperature limitation and throughput limitation.

**II. Operational Restrictions**

Emissions Unit ID: T006

1. The net annual flux asphalt throughput of emissions units T006 and T007 shall not exceed 16,111,110 gallons per year based upon a rolling, 12-month summation, combined.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall install, operate, and maintain a continuous temperature monitor and recorder which measures and records the storage temperature in the flux asphalt storage tank. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within  $\pm 1$  percent of the temperature being measured. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee.

Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below:

- a. for vessels operated above or below ambient temperature, the maximum true vapor pressure shall be calculated based upon the average temperature as calculated from the data-set of all temperatures recorded during each month;
- b. the permittee shall calculate the vapor pressure using the Clausius Clapeyron Treatment of Vapor Pressure Data and the average temperature as obtained in a above:

$$\ln V_p = A - B/T$$

where:

$V_p$  is the equilibrium vapor pressure, mmHg

$A$  = the constant 18.2891 from Table 9 for flux asphalt, Owens Corning's "Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading", 1999

$B$  = the constant 12725.6 from Table 9 for flux asphalt, Owens Corning's "Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading", 1999

$T$  is the monthly average storage temperature converted to Rankine, (R)

[Authority for term: 40 CFR Part 60, Section 60.116b(e)(1) and OAC rule 3745-31-02(A)]

2. The permittee shall install a high temperature alarm set to alert when a temperature of greater than 390 degrees Fahrenheit is recorded. The permittee shall maintain a log of the date, time of day, duration and recorded temperature when the alarm alerts to a temperature of greater than 390 degrees Fahrenheit.

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[Authority for term: OAC rule 3745-31-02(A)]

3. The permittee shall maintain a log of the downtime of the continuous temperature monitoring and recording equipment when the flux asphalt tank contains product and is being heated.

[Authority for term: OAC rule 3745-31-02(A)]

4. The permittee shall maintain monthly records;
  - a. the flux asphalt throughput for this tank, in gallons; and
  - b. the rolling, 12-month summation of the flux asphalt throughput for this tank, in gallons.

[Authority for term: OAC rules 3745-31-05(C) and OAC rule 3745-31-02(A)]

5. The permittee shall maintain monthly records from emissions units B006, P004, P005, T006, T007, 300 gallon oil de-water tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iii), 6768 gallon waste oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv) and 15000 gallon No. 2 fuel oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv):
  - a. the rolling, 12-month summation of PM10 emissions.

[Authority for term: OAC rules 3745-31-05(C)]

6. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from any tank vent. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident;
  - c. any corrective actions taken to eliminate the visible emissions; and
  - d. whether, or not, the transfer lines are being blown for clearing during the

Emissions Unit ID: T006

observation.

Whenever visible emissions are observed and it is determined that the transfer lines were not being blown for clearing during the observation, the permittee shall promptly investigate the cause of the visible emissions deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of the visible emissions deviation, the permittee shall take prompt corrective action to bring the visible emissions into compliance. If the permittee determines that corrective action is not necessary the permittee shall document the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[Authority for term: OAC rule 3745-31-02(A)]

#### **IV. Reporting Requirements**

1. Except as provided in paragraph (g) of 40 CFR Part 60, Section 60.116b, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Hamilton County Department of Environmental Services within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.

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[Authority for term: 40 CFR Part 60, Section 60.116b(d)]

2. The permittee shall submit quarterly summaries of the records which identify all times when the monthly average maximum storage temperature of the flux asphalt stored in this tank exceeded 390 degrees Fahrenheit. The permittee shall submit the summaries to the Hamilton County Department of Environmental Services. These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters. If no deviations occur during the reporting period, the permittee shall state so in the report.

[Authority for term: OAC rule 3745-31-02(A)]

3. The permittee shall submit quarterly summaries of the records which identify all times when the high temperature alarm alerts to a temperature of greater than 390 degrees Fahrenheit. The permittee shall submit the summaries to the Hamilton County Department of Environmental Services. These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters. If no deviations occur during the reporting period, the permittee shall state so in the report.

[Authority for term: OAC rule 3745-31-02(A)]

4. The permittee shall submit quarterly summaries of the records which identify any records of downtime for the capture (collection) system, the continuous temperature monitoring and recording equipment when the flux asphalt tank contains product and is being heated. The permittee shall submit the summaries to the Hamilton County Department of Environmental Services. These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters. If no downtime occurs during the reporting period, the permittee shall state so in the report.

[Authority for term: OAC rule 3745-31-02(A)]

5. The permittee shall submit deviation (excursion) reports that identifies all the exceedances:
  - a. any limitation listed in term and condition A.II.1;
  - b. the rolling, 12-month summation of PM10 emissions listed in term A.I.1.

These reports shall be submitted in accordance with the general terms and conditions

Emissions Unit ID: T006

in this permit.

[Authority for term: OAC rules 3745-31-05(C), 3745-31-05(A)(3) and 3745-31-02(A)]

6. The permittee shall submit quarterly written reports that (a) identify all days during which any visible particulate emissions were observed from any tank vent serving this emissions unit (b) whether, or not, the transfer lines were being blown for clearing during the observation and (c) describe any corrective actions taken to eliminate the visible particulate emissions, if necessary. These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters. If no deviations occur during the reporting period, the permittee shall state so in the report.

[Authority for term: OAC rule 3745-31-02(A)]

7. Pursuant to the NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
- a. construction date (no later than 30 days after such date);
  - b. actual start-up date (within 15 days after such date); and
  - c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Hamilton County Department of Environmental Services  
 250 William Howard Taft Road  
 Cincinnati, Ohio 45219

## **V. Testing Requirements**

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

Emission Limitation:

Organic Compound (OC) emissions from emissions units T006 and T007 combined shall not exceed 8.86 tons per year (TPY).

Applicable Compliance Method:

USEPA Tanks 4.0 calculations were used to validate that the annual OC emissions are less than 10 TPY, thus qualifying the emissions unit under OAC rule 3745-31-02(A). Annual OC emissions of 8.86 TPY resulted from the following Tanks 4.0 data inputs for tanks T006 and T007, combined:

- a. a maximum vapor pressure of 0.55 psi (3.82 kPa) which correlates to a storage

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temperature of 390 degrees Fahrenheit according to the Clausius Clapeyron Treatment of Vapor Pressure Data (Owens Corning technical paper, Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading, 1999);

- b. a maximum storage temperature of 390 degrees Fahrenheit; and
- c. a annual net throughput of 16,111,920 gallons.

Emission Limitation:

less than 10 TPY of PE to avoid BAT requirements.

Applicable Compliance Method:

The annual PE voluntary restriction established through OAC rule 3745-31-02(A) was developed from the following equation using the information submitted by the permittee on 4/23/2007 (Owens Corning technical paper, Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading, 1999) as a supplement to permit to install application 14-05754, submitted in August 3, 2005 for tanks T006 and T007, combined:

From Table 4 of the Owens Corning technical paper, "The results of the split in the total hydrocarbon fume between VOC and particulate were approximately 78% VOC and 22% particulate in the asphalt equipment."

$8.86 \text{ tons of OC/year} \times \text{ton of hydrocarbon fume}/0.78 \text{ ton of OC} = 11.36 \text{ tons/year of hydrocarbon fumes generated};$

$11.36 \text{ tons of hydrocarbon fume/year} \times 0.22 \text{ ton of PE/ton of hydrocarbon fume} \times (1 - 85\% \text{ fiberglass filter control efficiency}/100) = 0.37 \text{ TPY of PE/PM}_{10}/\text{PM}_{2.5}.$

Emissions Limitation:

No owner or operator subject to the provisions of 40 CFR Part 60, Section 60.472(c) shall cause to be discharged into the atmosphere from any asphalt storage tank exhaust gases with opacity greater than 0 percent, except for one consecutive 15-minute period when the transfer lines are being blown for clearing.

Applicable Compliance Method:

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

- a. the emission testing shall be conducted to demonstrate compliance with the visible emission limitation;

Emissions Unit ID: T006

- b. compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9;
  - c. 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 appropriate Ohio EPA District Office or local air agency;
  - d. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s);
  - e. personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment; and
  - f. a comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
2. Compliance with the 12-month rolling emission and throughput limitations in terms and conditions A.I.1 and A.II.1 shall be demonstrated by the record keeping in term and condition A.III.

**VI. Miscellaneous Requirements**

None

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**B. State Only Enforceable Section**

**I. 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.

**Operations, Property, and/or Equipment -(T006) - Flux Tank 1 - 374,000 gallon heated asphalt flux fixed roof storage tank with submerged filling**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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.

**Operations, Property, and/or Equipment - (T007) - Flux Tank 2 - 374,000 gallon heated asphalt flux fixed roof storage tank with submerged filling**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	See term and condition A.I.2.a.
OAC rule 3745-21-09(L)(1)	See term and condition A.I.2.b.
OAC rule 3745-21-09(L)(4)	See term and condition A.I.2.c.
40 CFR Part 60 Subpart Kb	See term and condition A.I.2.d.
40 CFR Part 60 Subpart UU 60.472(c)	See term and condition A.I.2.f.
OAC rule 3745-31-05(A)(3)	<p>Organic Compound (OC) emissions from emission units T006 and T007 combined shall not exceed 8.86 tons per year (TPY).</p> <p>See terms and conditions A.I.2.e and A.II.1.</p> <p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart Kb, 40 CFR Part 60 Subpart UU and OAC rule 3745-21-09(L).</p>

Emissions Unit ID: T007

<p>OAC rule 3745-31-05(C)                  To avoid non-attainment review for PM2.5. Currently U.S. EPA has not revised new source review regulations to include PM2.5 pollutant and therefore until such time U.S. EPA generated guidance that one should treat all PM2.5 emissions as PM10. (and to avoid being subject to the State air dispersion modeling requirements)</p>	<p>Particulate matter 10 emissions microns and less in diameter (PM10) shall not exceed 9.99 tons per year based upon a rolling, 12-month summation from emissions units B006, P004, P005, T006, T007, 300 gallon oil de-water tank exempt pursuant to OAC rule 3745-31-03(A)(1)(l)(iii), 6768 gallon waste oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(l)(iv) and 15000 gallon No. 2 fuel oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(l)(iv).</p> <p>See term and condition A.II.1.</p>
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**2. Additional Terms and Conditions**

- 2.a** Permit to Install 14-5754 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for particulate emissions (PE):
  - i. the use of a fiberglass air filter to passively control condensible organic PE from the storage tank.
- 2.b** This emissions unit is exempt from the vapor control equipment requirements since the petroleum liquid stored product, as outlined in permit to install application 14-05754 submitted August 3, 2005, does not have a true vapor pressure greater than 1.52 pound per square inch absolute.
- 2.c** If an owner or operator places, stores, or holds in a fixed roof tank, that is not exempted pursuant to paragraph (L)(2) of OAC rule 3745-21-09, any petroleum liquid with a true vapor pressure which is greater than 1.52 pounds per square inch absolute and such tank does not comply with the requirements of paragraph (L)(1) of OAC rule 3745-21-09, the owner or operator shall so notify the Hamilton County Department of Environmental Services within thirty days of becoming aware of the occurrence.
- 2.d** The permittee has proposed to avoid the control requirements pursuant to 40 CFR Part 60, Subpart Kb by voluntarily restricting the hot asphalt storage temperature. Restricting the storage temperature will, in turn, restrict the maximum true vapor pressure of the flux asphalt stored to less than 5.2 kPa. The permittee has proposed to determine compliance with the voluntary vapor pressure restriction by monitoring and recording the storage temperature and determining the flux asphalt vapor pressure pursuant to the requirements in 40

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CFR Part 60, Section 60.116b(e)(1) and using the "Clausius-Clapeyron Treatment of Vapor Pressure Data" outlined in Owens Corning's "Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading", 1999 to calculate the vapor pressure.

- 2.e** To ensure the maximum true vapor pressure of the stored material does not exceed 5.2 kPa, the monthly average maximum storage temperature of the flux asphalt stored in this tank shall not exceed 390 degrees Fahrenheit.

[Authority for term: OAC rule 3745-31-05(A)]

- 2.f** Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, no owner or operator subject to the provisions of 40 CFR Part 60, Subpart UU shall cause to be discharged into the atmosphere from any asphalt storage tank exhaust gases with opacity greater than 0 percent, except for one consecutive 15-minute period when the transfer lines are being blown for clearing.

The control device shall not be bypassed during this 15-minute period. If, however, the emissions from any asphalt storage tank(s) are ducted to a control device for a saturator, the combined emissions shall meet the emission limitation contained in paragraph (a) of Section 60.472 during the time the saturator control device is operating. At any other time the asphalt storage tank(s) must meet the opacity limit specified above for storage tanks.

[Authority for term: 40 CFR Part 60, Section 60.472(c)]

- 2.g** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

- 2.h** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emission limitation, asphalt storage temperature limitation and throughput limitation.

**II. Operational Restrictions**

1. The net annual flux asphalt throughput of emissions units T006 and T007 shall not

Emissions Unit ID: T007

exceed 16,111,110 gallons per year based upon a rolling, 12-month summation, combined.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall install, operate, and maintain a continuous temperature monitor and recorder which measures and records the storage temperature in the flux asphalt storage tank. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within  $\pm 1$  percent of the temperature being measured. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee.

Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below:

- a. for vessels operated above or below ambient temperature, the maximum true vapor pressure shall be calculated based upon the average temperature as calculated from the data-set of all temperatures recorded during each month;
- b. the permittee shall calculate the vapor pressure using the Clausius Clapeyron Treatment of Vapor Pressure Data and the average temperature as obtained in a above:

$$\ln Vp = A - B/T$$

where:

Vp is the equilibrium vapor pressure, mmHg

A = the constant 18.2891 from Table 9 for flux asphalt, Owens Corning's "Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading", 1999

B = the constant 12725.6 from Table 9 for flux asphalt, Owens Corning's "Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading", 1999

T is the monthly average storage temperature converted to Rankine, (R)

[Authority for term: 40 CFR Part 60, Section 60.116b(e)(1) and OAC rule 3745-31-02(A)]

2. The permittee shall install a high temperature alarm set to alert when a temperature of greater than 390 degrees Fahrenheit is recorded. The permittee shall maintain a log of the date, time of day, duration and recorded temperature when the alarm alerts to a temperature of greater than 390 degrees Fahrenheit.

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[Authority for term: OAC rule 3745-31-02(A)]

3. The permittee shall maintain a log of the downtime of the continuous temperature monitoring and recording equipment when the flux asphalt tank contains product and is being heated.

[Authority for term: OAC rule 3745-31-02(A)]

4. The permittee shall maintain monthly records;
  - a. the flux asphalt throughput for this tank, in gallons; and
  - b. the rolling, 12-month summation of the flux asphalt throughput for this tank, in gallons.

[Authority for term: OAC rules 3745-31-05(C) and OAC rule 3745-31-02(A)]

5. The permittee shall maintain monthly records from emissions units B006, P004, P005, T006, T007, 300 gallon oil de-water tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iii), 6768 gallon waste oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv) and 15000 gallon No. 2 fuel oil tank exempt pursuant to OAC rule 3745-31-03(A)(1)(I)(iv):
  - a. the rolling, 12-month summation of PM10 emissions.

[Authority for term: OAC rules 3745-31-05(C)]

6. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from any tank vent. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident;
  - c. any corrective actions taken to eliminate the visible emissions; and
  - d. whether, or not, the transfer lines are being blown for clearing during the observation.

Emissions Unit ID: T007

Whenever visible emissions are observed and it is determined that the transfer lines were not being blown for clearing during the observation, the permittee shall promptly investigate the cause of the visible emissions deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of the visible emissions deviation, the permittee shall take prompt corrective action to bring the visible emissions into compliance. If the permittee determines that corrective action is not necessary the permittee shall document the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[Authority for term: OAC rule 3745-31-02(A)]

#### **IV. Reporting Requirements**

1. Except as provided in paragraph (g) of 40 CFR Part 60, Section 60.116b, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Hamilton County Department of Environmental Services within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.

[Authority for term: 40 CFR Part 60, Section 60.116b(d)]

2. The permittee shall submit quarterly summaries of the records which identify all times when the monthly average maximum storage temperature of the flux asphalt stored in this tank exceeded 390 degrees Fahrenheit. The permittee shall submit the summaries to the Hamilton County Department of Environmental Services. These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters. If no deviations occur during the reporting period, the permittee shall state so in the report.

[Authority for term: OAC rule 3745-31-02(A)]

3. The permittee shall submit quarterly summaries of the records which identify all times

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when the high temperature alarm alerts to a temperature of greater than 390 degrees Fahrenheit. The permittee shall submit the summaries to the Hamilton County Department of Environmental Services. These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters. If no deviations occur during the reporting period, the permittee shall state so in the report.

[Authority for term: OAC rule 3745-31-02(A)]

4. The permittee shall submit quarterly summaries of the records which identify any records of downtime for the capture (collection) system, the continuous temperature monitoring and recording equipment when the flux asphalt tank contains product and is being heated. The permittee shall submit the summaries to the Hamilton County Department of Environmental Services. These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters. If no downtime occurs during the reporting period, the permittee shall state so in the report.

[Authority for term: OAC rule 3745-31-02(A)]

5. The permittee shall submit deviation (excursion) reports that identifies all the exceedances:
  - a. any limitation listed in term and condition A.II.1;
  - b. the rolling, 12-month summation of PM10 emissions listed in term A.I.1.

These reports shall be submitted in accordance with the general terms and conditions in this permit.

[Authority for term: OAC rules 3745-31-05(C), 3745-31-05(A)(3) and 3745-31-02(A)]

6. The permittee shall submit quarterly written reports that (a) identify all days during which any visible particulate emissions were observed from any tank vent serving this emissions unit (b) whether, or not, the transfer lines were being blown for clearing during the observation and (c) describe any corrective actions taken to eliminate the visible particulate emissions, if necessary. These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters. If no deviations occur during the reporting period, the permittee shall state so in the report.

Emissions Unit ID: T007

[Authority for term: OAC rule 3745-31-02(A)]

7. Pursuant to the NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
  - a. construction date (no later than 30 days after such date);
  - b. actual start-up date (within 15 days after such date); and
  - c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Hamilton County Department of Environmental Services  
250 William Howard Taft Road  
Cincinnati, Ohio 45219

**V. Testing Requirements**

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

Emission Limitation:

Organic Compound (OC) emissions from emissions units T006 and T007 combined shall not exceed 8.86 tons per year (TPY).

Applicable Compliance Method:

USEPA Tanks 4.0 calculations were used to validate that the annual OC emissions are less than 10 TPY, thus qualifying the emissions unit under OAC rule 3745-31-02(A). Annual OC emissions of 8.86 TPY resulted from the following Tanks 4.0 data inputs for tanks T006 and T007, combined:

- a. a maximum vapor pressure of 0.55 psi (3.82 kPa) which correlates to a storage temperature of 390 degrees Fahrenheit according to the Clausius Clapeyron Treatment of Vapor Pressure Data (Owens Corning technical paper, Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading, 1999);
- b. a maximum storage temperature of 390 degrees Fahrenheit; and
- c. a annual net throughput of 16,111,920 gallons.

Emission Limitation:

less than 10 TPY of PE to avoid BAT requirements.

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Applicable Compliance Method:

The annual PE voluntary restriction established through OAC rule 3745-31-02(A) was developed from the following equation using the information submitted by the permittee on 4/23/2007 (Owens Corning technical paper, Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading, 1999) as a supplement to permit to install application 14-05754, submitted in August 3, 2005 for tanks T006 and T007, combined:

From Table 4 of the Owens Corning technical paper, "The results of the split in the total hydrocarbon fume between VOC and particulate were approximately 78% VOC and 22% particulate in the asphalt equipment."

8.86 tons of OC/year x ton of hydrocarbon fume/0.78 ton of OC = 11.36 tons/year hydrocarbon fumes generated;

11.36 tons of hydrocarbon fume/year x 0.22 ton of PE/ton of hydrocarbon fume x (1 - 85% fiberglass filter control efficiency/100) = 0.37 TPY of PE/PM10/PM2.5.

Emissions Limitation:

No owner or operator subject to the provisions of 40 CFR Part 60, Section 60.472(c) shall cause to be discharged into the atmosphere from any asphalt storage tank exhaust gases with opacity greater than 0 percent, except for one consecutive 15-minute period when the transfer lines are being blown for clearing.

Applicable Compliance Method:

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

- a. the emission testing shall be conducted to demonstrate compliance with the visible emissions limitation;
- b. compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9;
- c. 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 appropriate Ohio EPA District Office or local air agency;
- d. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the

Emissions Unit ID: T007

proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s);

- e. personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment; and
  - f. a comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
2. Compliance with the 12-month rolling emission and throughput limitations in terms and conditions A.I.1 and A.II.1 shall be demonstrated by the record keeping in term and condition A.III.

**VI. Miscellaneous Requirements**

None

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**B. State Only Enforceable Section**

**I. 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.

**Operations, Property, and/or Equipment - (T007) - Flux Tank 2 - 374,000 gallon heated asphalt flux fixed roof storage tank with submerged filling**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None