



Environmental Protection Agency

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

7/20/2011

Certified Mail

Yes	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
Yes	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Rod Mamula  
Atlas Roofing Corporation, Franklin Roofing Facility  
675 Oxford Road  
Franklin, OH 45005

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 1483040201  
Permit Number: P0108369  
Permit Type: Administrative Modification  
County: Warren

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.aspx) and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

The Ohio EPA is encouraging 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 Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Hamilton County Dept. of Environmental Services. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: U.S. EPA  
HCDOES; Indiana; Kentucky





**FINAL**

**Division of Air Pollution Control  
Permit-to-Install**

for

Atlas Roofing Corporation, Franklin Roofing Facility

Facility ID:	1483040201
Permit Number:	P0108369
Permit Type:	Administrative Modification
Issued:	7/20/2011
Effective:	7/20/2011





Division of Air Pollution Control
Permit-to-Install
for
Atlas Roofing Corporation, Franklin Roofing Facility

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## Authorization

Facility ID: 1483040201  
Facility Description: Franklin Roofing Facility (Asphalt Roofing Shingle Production)  
Application Number(s): M0001302  
Permit Number: P0108369  
Permit Description: Agency-initiated Administrative Modification to PTI P0105996 for emission units P004, P005, T006, and T007 to establish BAT and conform with the July 2, 2010, memo "Permit Processing After U.S. District Court <10 Ton/Yr Exemption Decision"  
Permit Type: Administrative Modification  
Permit Fee: \$0.00  
Issue Date: 7/20/2011  
Effective Date: 7/20/2011

This document constitutes issuance to:

Atlas Roofing Corporation, Franklin Roofing Facility  
675 Oxford Road  
Franklin, OH 45005

of a Permit-to-Install for the emissions unit(s) identified on the following page.

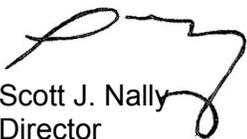
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Hamilton County Dept. of Environmental Services  
250 William Howard Taft Pkwy.  
Cincinnati, OH 45219-2660  
(513)946-7777

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the 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



Scott J. Nally  
Director



## Authorization (continued)

Permit Number: P0108369

Permit Description: Agency-initiated Administrative Modification to PTI P0105996 for emission units P004, P005, T006, and T007 to establish BAT and conform with the July 2, 2010, memo "Permit Processing After U.S. District Court <10 Ton/Yr Exemption Decision"

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

### Group Name: Blowstills

<b>Emissions Unit ID:</b>	<b>P004</b>
Company Equipment ID:	P004
Superseded Permit Number:	P0105996
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P005</b>
Company Equipment ID:	P005
Superseded Permit Number:	P0105996
General Permit Category and Type:	Not Applicable

### Group Name: Storage Tanks

<b>Emissions Unit ID:</b>	<b>T006</b>
Company Equipment ID:	Flux Tank #1
Superseded Permit Number:	P0105996
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>T007</b>
Company Equipment ID:	Flux Tank #2
Superseded Permit Number:	P0105996
General Permit Category and Type:	Not Applicable

## **A. Standard Terms and Conditions**

**1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
  - (1) Standard Term and Condition A.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

**2. Severability Clause**

- a) 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.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of 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. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

**3. 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.

#### **4. Monitoring and Related Record Keeping 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:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) 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:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Hamilton County Dept. of Environmental Services.

- (2) 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 Hamilton County Dept. of Environmental Services. The written 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 A.15. below if no deviations occurred during the quarter.
  - (3) 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 Hamilton County Dept. of Environmental Services 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.
  - (4) This permit is for an emissions unit located at a Title V facility. 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.

## 5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Hamilton County Dept. of Environmental Services 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).

## 6. Compliance Requirements

- a) 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.
- b) 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.

- c) 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:
  - (1) 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.
  - (2) 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.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) 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.
- d) The permittee shall submit progress reports to the Hamilton County Dept. of Environmental Services 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 the Ohio EPA. Progress reports shall contain the following:
  - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) 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.

## **7. Best Available Technology**

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

## **8. 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.

## **9. 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 Hamilton County Dept. of Environmental Services.
- 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 Hamilton County Dept. of Environmental Services. 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.)

#### **10. 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).

#### **11. Construction of New Sources(s) and Authorization to Install**

- a) 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.
- b) If applicable, authorization to install any new 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 installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. 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.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently

removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

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

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).

## **13. Construction Compliance Certification**

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

## **14. 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.

**15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations**

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.

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

**17. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in Air Services once the transfer is legally completed. The change must be submitted through Air Services within thirty days of the ownership transfer date.

**18. 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.

**19. Title IV Provisions**

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

## **B. Facility-Wide Terms and Conditions**

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
  - a) None.

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

**1. Emissions Unit Group -Blowstills: P004,P005,**

EU ID	Operations, Property and/or Equipment Description
P004	24.3 TPH flux asphalt blow still No. 1 with thermal oxidizer (Egress Point ID B015; in common with EU P005)
P005	24.3 TPH flux asphalt blow still No. 2 with thermal oxidizer (Egress Point ID B015; in common with EU P004)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) d)(10) – d)(13).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	<p>Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.055 pound per ton of asphalt.</p> <p>PE/PM10 emissions shall not exceed 7.6 pounds per million cubic feet of natural gas or 2 pounds per 1000 gallons of No. 2 fuel oil.</p> <p>PE/PM10 shall not exceed 3.34 tons per year (TPY) from emissions units P004 and P005, combined, when burning natural gas exclusively in the asphalt preheater.</p> <p>PE/PM10 shall not exceed 3.16 tons per year (TPY) from emissions units P004 and P005, combined, when burning natural gas in combination with the maximum allowable amount of No. 2 fuel oil in the asphalt preheater.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Emissions of volatile organic compounds (VOC) shall not exceed 0.0033 pound per ton of asphalt.</p> <p>VOC emissions shall not exceed 5.5 pounds per million cubic feet of natural gas or 0.34 pound per 1000 gallons of No. 2 fuel oil.</p> <p>VOC emissions shall not exceed 0.42 TPY from emissions units P004 and P005, combined, when burning natural gas exclusively in the asphalt preheater.</p> <p>VOC emissions shall not exceed 0.35 TPY from emissions units P004 and P005, combined, when burning natural gas in combination with the maximum allowable amount of No. 2 fuel oil in the asphalt preheater.</p> <p>For each “blowing still” (as defined in 60.471) the visible emission limitation established by this rule is less stringent than the visible emission limitation established pursuant to 40 CFR Part 60, Subpart UU; 40 CFR 60.472(b)(5).</p> <p>For the asphalt preheater portion of these emissions units, visible PE from the stack shall not exceed 20% opacity, as a six-minute average, except as specified by rule.</p> <p>See b)(2)a. and c)(1).</p>
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06.	See b)(2)b.
c.	<p>OAC rule 3745-31-05(D)</p> <p>To avoid non-attainment review for PM2.5.</p> <p>To avoid being subject to State air dispersion modeling requirements for PM10.</p> <p>To avoid being a Title V Major</p>	<p>See b)(2)c.</p> <p>See c)(2) and c)(3).</p> <p>Emissions of sulfur dioxide (SO<sub>2</sub>) shall not exceed 46.90 TPY from emissions units P004 and P005, combined, based upon a rolling, 12-month summation burning natural gas exclusively in the asphalt preheater.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	Source of SO2 emissions.	<p>Emissions of SO2 shall not exceed 49.99 TPY from emissions units P004 and P005, combined, based upon a rolling, 12-month summation when burning natural gas in combination with the maximum allowable amount of No. 2 fuel oil in the asphalt preheater.</p> <p>SO2 emissions shall not exceed 0.6 pound per million cubic feet of natural gas or 71 pounds per 1000 gallons of No. 2 fuel oil from the asphalt preheater.</p>
d.	<p>OAC rule 3745-31-05(C), as effective 12/01/06 Voluntary limit to avoid BAT.</p> <p>OAC rule 3745-31-05(C), as effective 12/01/06 Voluntary limit on the allowable HAPs emissions to avoid being a Major Source of HAPs emissions subject to 40 CFR Part 63, Subpart LLLLL.</p>	<p>See b)(2)b.</p> <p>See c)(1).</p>
e.	<p>ORC 3704.03(T) Pursuant to the provisions of Senate Bill 265, for air permit installation applications submitted on or after August 3, 2009, with regard to Best Available Technology.</p>	<p>Emissions of nitrogen oxides (NOx) shall not exceed 0.12 pound per ton of asphalt.</p> <p>NOx emissions shall not exceed 100 pounds per million cubic feet of natural gas or 20 pounds per 1000 gallons of No. 2 fuel oil from the asphalt preheater.</p> <p>Emissions of carbon monoxide (CO) shall not exceed 0.59 pound per ton of asphalt.</p> <p>CO emissions shall not exceed 84 pounds per million cubic feet of natural gas or 5 pounds per 1000 gallons of No. 2 fuel oil from the asphalt preheater.</p> <p>Emissions of SO2 shall not exceed 0.86 pound per ton of asphalt.</p> <p>SO2 emissions shall not exceed 0.6 pound per million cubic feet of natural gas or 71 pounds per 1000 gallons of No. 2 fuel oil from the asphalt preheater.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-17-07(A)(1)	<p>For each “blowing still” (as defined in 60.471) the visible emission limitation established by this rule is less stringent than the visible emission limitation established pursuant to 40 CFR Part 60, Subpart UU; 40 CFR 60.472(b)(5).</p> <p>For the asphalt preheater portion of these emissions units, visible PE from the stack shall not exceed 20% opacity, as a six-minute average, except as specified by rule.</p>
g.	OAC rule 3745-17-11(B)	<p>The PE limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), as effective 12/01/06.</p> <p>Once b)(2)a. is effective, then for each “blowing still” (as defined in 60.471) the particulate emission limitation established by this rule is less stringent than the particulate emission limitation established pursuant to 40 CFR Part 60, Subpart UU; 40 CFR 60.472.</p>
h.	OAC rule 3745-18-06(E)	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC 3704.03(T).</p>
i.	<p>40 CFR Part 60, Subpart UU (40 CFR 60.470 - 40 CFR 60.474)</p> <p>[In accordance with 40 CFR 60.470(b), these emissions units are blowing stills that processes and/or store asphalt used for roofing subject to the emission limitations/control measures specified in this section.]</p>	<p>The PE limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), as effective 12/01/06.</p> <p>Once b)(2)a. is effective, then for each “blowing still” (as defined in 60.471) the particulate emission limitation is based upon the provisions listed in 40 CFR Part 60, Subpart UU; 40 CFR 60.472(b).</p> <p>See b)(2)d.</p>

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code

(ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

- b. These rule paragraphs apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from these air contaminant sources since the uncontrolled potential to emit for VOC is less than 10 tons/yr each.

PTI P0108369 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):

- i. the maximum annual oxidized asphalt production from emissions units P004 and P005, combined, shall not exceed 109,000 tons of asphalt per year when burning natural gas exclusively in the asphalt preheater or 99,400 tons of oxidized asphalt per year when burning natural gas in combination with no more than 203,720 gallons of No. 2 fuel oil per year, in emissions units P004 and P005, combined;
  - ii. the use of a thermal oxidizer for control of PE/PM10 and VOC emissions;
  - iii. Emissions of PE/PM10 shall not exceed 3.34 tons per year (TPY) from emissions units P004 and P005, combined, when burning natural gas exclusively in the asphalt preheater; and
  - iv. Emissions of PE/PM10 shall not exceed 3.16 tons per year (TPY) from emissions units P004 and P005 when burning natural gas in combination with the maximum allowable amount of No. 2 fuel oil in the asphalt preheater.
- c. Emissions of PM10 shall not exceed 3.98 tons per year (TPY), based upon a rolling, 12-month summation, from emissions units P004, P005, T006 and T007, combined, when burning natural gas exclusively in the asphalt preheater.

Emissions of PM10 shall not exceed 3.80 tons per year (TPY), based upon a rolling, 12-month summation, from emissions units P004, P005, T006 and T007, combined, when burning natural gas in combination with the maximum allowable amount of No. 2 fuel oil in the asphalt preheater.

- d. See 40 CFR Part 60, Subpart UU (40 CFR 60.472(b)(5)).

c) Operational Restrictions

- (1) In order for the facility to be considered a minor source of HCl (HAP) and not subject to requirements under 40 CFR Part 63, Subpart LLLLL, the permittee shall not use the catalytic ferric chloride in emissions units P004 and P005.
- (2) For the purposes of avoiding air dispersion modeling of PM10 emissions, as denoted in Ohio EPA's Engineering Guide #69, and to avoid being a major modification at a current non-attainment major stationary source for PM2.5 emissions, the maximum annual oxidized asphalt production from emissions units P004 and P005, combined, shall not exceed 109,000 tons of asphalt per year, based upon a rolling, 12-month summation, when burning natural gas exclusively in the asphalt preheater, or 99,400 tons of oxidized asphalt per year, based upon a rolling, 12-month summation, when burning natural gas in combination with no more than 203,720 gallons of No. 2 fuel oil per year, based upon a rolling, 12-month summation, in emissions units P004 and P005, combined. These emissions units have been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summations of the oxidized asphalt production, upon issuance of this permit.
- (3) The quality of the oil burned in the asphalt preheater portion of this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable SO2 emission limitation specified in this permit for SO2 emissions from the asphalt preheater.

d) Monitoring and/or Recordkeeping Requirements

- (1) For SO2 emissions, the permittee shall maintain monthly records of the following information for emissions units P004 & P005, combined, and for PM10 emissions, the permittee shall maintain the following information for emissions units P004, P005, T006 and T007, combined, when burning natural gas exclusively in the asphalt preheater :
  - a. The oxidized asphalt production rate, in tons;
  - b. The updated rolling, 12-month summation of the oxidized asphalt production rate, in tons; and
  - c. The updated rolling, 12-month summations of the SO2 and PM10 emissions, in tons, from asphalt blowing and natural gas combustion in the asphalt preheater:
    - i. for SO2, the summation of: b. multiplied by 0.86 pound per ton of asphalt and divided by 2000 pounds per ton and, the actual amount of natural gas burned in the asphalt preheater, in millions of cubic feet per 12-month period, multiplied by 0.6 pound per million cubic feet and divided by 2000 pounds per ton; and
    - ii. for PM10, the summation of: b. multiplied by 0.055 pound per ton of asphalt and divided by 2000 pounds per ton and, the actual amount of natural gas burned in the asphalt preheater, in millions of cubic feet per 12-month period, multiplied by 7.6 pounds per million cubic feet and divided by 2000 pounds per ton, and the summation of the PM10

emissions from T006 and T007 as calculated by the Tanks 4.09d emissions estimation software.

- (2) For SO<sub>2</sub> emissions, the permittee shall maintain monthly records of the following information for emissions units P004 & P005, combined, and for PM<sub>10</sub> emissions, the permittee shall maintain the following information for emissions units P004, P005, T006 and T007, combined, when burning natural gas in combination with No. 2 fuel oil in the asphalt preheater:
- a. The amount of No. 2 fuel oil burned, in gallons;
  - b. The oxidized asphalt production rate, in tons;
  - c. The updated, rolling, 12-month summation of the amount of No. 2 fuel oil burned, in gallons;
  - d. The updated, rolling, 12-month summation of the oxidized asphalt production rate, in tons; and
  - e. The updated rolling, 12-month summations of the SO<sub>2</sub> and PM<sub>10</sub> emissions, in tons, from asphalt blowing and natural gas and No. 2 fuel oil combustion in the asphalt preheater:
    - i. for SO<sub>2</sub>, the summation of: b. multiplied by 0.86 pound per ton of asphalt and divided by 2000 pounds per ton and, c. multiplied by the actual SO<sub>2</sub> emissions as calculated in f)(1), in pounds SO<sub>2</sub> per gallon of No. 2 fuel oil, and divided by 2000 pounds per ton, and the actual amount of natural gas burned in the asphalt preheater, in millions of cubic feet per 12-month period, multiplied by 0.6 pound per million cubic feet and divided by 2000 pounds per ton; and
    - ii. for PM<sub>10</sub>, the summation of: b. multiplied by 0.055 pound per ton of asphalt and divided by 2000 pounds per ton and, c. multiplied by 0.002 pound per gallon of No. 2 fuel oil, and divided by 2000 pounds per ton, and the actual amount of natural gas burned in the asphalt preheater, in millions of cubic feet per 12-month period, multiplied by 7.6 pounds per million cubic feet and divided by 2000 pounds per ton, and the summation of the PM<sub>10</sub> emissions from T006 and T007 as calculated by the Tanks 4.09d emission estimation software.
- (3) The permittee shall maintain monthly records indicating the use of ferric chloride, or any other catalyst, in emissions units P004 and P005. If no catalysts are used in P004 and P005, the permittee shall state so in the Monthly Record.
- [Authority for term: OAC rule 3745-31-05(A)(3) and OAC rule 3745-77-07(C)(1)]
- (4) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the fuel oil type (number 2, 4, or 6), the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in pounds SO<sub>2</sub>/1000 gallons of No. 2 fuel oil).

The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F) and converted to the units, pounds SO<sub>2</sub>/1000 gallons of No. 2 fuel oil). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

- (5) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit(s) controlled by the thermal oxidizer is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.
- (6) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation, including periods of startup and shutdown. 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 or  $\pm 5$  degrees Fahrenheit, whichever is greater. 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. The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
  - a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and
  - b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.
- (7) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, 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. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do 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 temperature range/limit 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 permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit 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.

- (8) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving each blowing still. 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; and
  - c. any corrective actions taken to eliminate the visible emissions.
- (9) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving the asphalt preheater portion of these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
- (10) The permit to install (PTI) application for this/these emissions unit(s), P004 & P005, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
- a. The exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
    - i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
    - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold

Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., [X] hours per day and [Y] days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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

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

Toxic Contaminant: Hydrogen chloride w/ option\* to list all toxics, covered under the worst-case toxic modeled.

TLV (mg/m3): 2.19 (\*for which toxic, if using worst case)

Maximum Hourly Emission Rate (lbs/hr): 0.97 (\*for which toxic, if using worst case)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4.53

MAGLC (ug/m3): 52.14

The permittee, has demonstrated that emissions of hydrogen chloride, from emissions unit(s) P004 & P005, are calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the [Toxic Air Contaminant Statute], ORC 3704.03(F).

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

- c. Physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

- (12) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
  - a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. The Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. A copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. The documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (13) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. All exceedances of the rolling, 12-month emissions limitation for SO<sub>2</sub>;
  - b. All exceedances of the rolling, 12-month emissions limitations for PM<sub>10</sub>;
  - c. All exceedances of the rolling, 12-month asphalt production limitations;
  - d. All exceedances of the rolling, 12-month No. 2 fuel oil usage limitation;
  - e. All instances of the use of ferric chloride as a catalyst in emissions units P004 and/or P005. If no catalysts are used in P004 and P005, the permittee shall state so in the Quarterly Report;
  - f. Any exceedance of the allowable sulfur dioxide emission limitation, in pounds SO<sub>2</sub>/1000 gallons of No. 2 fuel oil, of actual heat input;
  - g. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;
  - h. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;
  - i. each incident of deviation described in "g" or "h" (above) where a prompt investigation was not conducted;
  - j. each incident of deviation described in "g" or "h" where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken;
  - k. each incident of deviation described in "g" or "h" where proper records were not maintained for the investigation and/or the corrective action(s); and
  - l. any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration; or if no changes to the emissions, emissions unit(s), or the exhaust stack have been made, a statement to this effect.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (3) The permittee shall submit semiannual written reports that identify:
- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit when the thermal oxidizer was being fired with either natural gas or fuel oil; and
  - b. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

0% opacity unless an opacity limit for the blowing stills when fuel oil is used to fire the afterburner (thermal oxidizer) has been established in accordance with 40 CFR 60.474(g). See 40 CFR Part 60, Subpart UU (40 CFR 60.472(b)(5) and 40 CFR 60.474(g)).

For the asphalt preheater portion of these emissions units, visible PE from the stack shall not exceed 20% 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 U.S. EPA Method 9.

b. Emission Limitations:

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.055 pound per ton of asphalt.

Emissions of volatile organic compounds (VOC) shall not exceed 0.0033 pound per ton of asphalt.

Applicable Compliance Method:

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

- i. Recurring emission testing shall be conducted based on the schedule outlined in Ohio EPA Engineering Guide #16. The permittee conducted tests and demonstrated compliance for these emissions units on December 9, 2008. Based on actual emissions, these emissions units

are considered "non-major emissions units" as defined in Engineering Guide #16 and subject to retesting at the discretion of Hamilton County Department of Environmental Services. Testing requirements with specific testing frequencies in the forthcoming Title V Operating Permit may supersede this PTI requirement.

- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE/PM10 and VOC in the appropriate units and averaging period;
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
  - (a) For PE/PM10, Methods 1-5 of 40 CFR Part 60, Appendix A; and
  - (b) For VOC, 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.

- iv. The owner or operator shall determine compliance with the PE standard as referenced in 40 CFR 60.474(c).
- v. 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.
- vi. 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).
- vii. 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.
- viii. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where

warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

c. Emission Limitations:

PE/PM10 emissions shall not exceed 7.6 pounds per million cubic feet of natural gas or 2 pounds per 1000 gallons of No. 2 fuel oil from the asphalt preheater.

VOC emissions shall not exceed 5.5 pounds per million cubic feet of natural gas or 0.34 pound per 1000 gallons of No. 2 fuel oil.

NOx emissions shall not exceed 100 pounds per million cubic feet of natural gas or 20 pounds per 1000 gallons of No. 2 fuel oil from the asphalt preheater.

CO emissions shall not exceed 84 pounds per million cubic feet of natural gas or 5 pounds per 1000 gallons of No. 2 fuel oil from the asphalt preheater.

Emissions of nitrogen oxides (NOx) shall not exceed 0.12 pound per ton of asphalt.

Emissions of carbon monoxide (CO) shall not exceed 0.59 pound per ton of asphalt.

Emissions of SO<sub>2</sub> shall not exceed 0.86 pound per ton of asphalt.

SO<sub>2</sub> emissions shall not exceed 0.6 pound per million cubic feet of natural gas

Applicable Compliance Methods:

Compliance with the emission limitations from the combustion of natural gas in the asphalt preheater shall be demonstrated by the emission factors outlined in AP-42, Fifth Edition, Volume I, Chapter 1.4, Natural Gas Combustion, 7/98.

Compliance with the emission limitations from the combustion of fuel oil in the asphalt preheater shall be demonstrated by the emission factors outlined in AP-42, Fifth Edition, Volume I, Chapter 1.3, Fuel Oil Combustion, 9/98.

Compliance with the 0.12 pound per ton of asphalt of NO<sub>x</sub> emission limitation, the 0.59 pound per ton of asphalt of CO emissions limitation, and the 0.86 pound per ton of asphalt of SO<sub>2</sub> emission limitation shall be demonstrated by the emission factor outlined in "The Magnitude and Source of Air Emissions from Asphalt Blowing Operations", Environmental Progress, Spring 1998, page 55, Table 3.

Pursuant to OAC rule 3745-18-04(F)(4), from natural gas, the sulfur dioxide emission rate shall be considered to be equal to 0.0 pounds of sulfur dioxide per MMBtu.

d. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 71 pounds per 1000 gallons of No. 2 fuel oil from the asphalt preheater.

Applicable Compliance Method:

Compliance with the emissions limitation from the combustion of fuel oil in the asphalt preheater shall be demonstrated by the method outlined in OAC rule 3745-18-04(F)(2):

$$ER = (1 \times 10^6) / H \times D \times S \times 1.974$$

Where ER = the emission rate in pounds of sulfur dioxide per MMBtu;  
H = the heat content of the liquid fuel in Btu per gallon;  
D = the density of the liquid fuel in pounds per gallon; and  
S = the decimal fraction of sulfur in the liquid fuel.

The permittee shall convert the results in pounds of sulfur dioxide per MMBtu to pounds of sulfur dioxide per 1000 gallons of No. 2 fuel oil.

e. Emission Limitations:

Emissions of sulfur dioxide (SO<sub>2</sub>) shall not exceed 46.90 TPY from emissions units P004 and P005, combined, based upon a rolling, 12-month summation burning natural gas exclusively in the asphalt preheater.

Emissions of SO<sub>2</sub> shall not exceed 49.99 TPY from emissions units P004 and P005, combined, based upon a rolling, 12-month summation when burning natural gas in combination with the maximum allowable amount of No. 2 fuel oil in the asphalt preheater.

Emissions of PM<sub>10</sub> shall not exceed 3.98 tons per year (TPY), based upon a rolling, 12-month summation, from emissions units P004, P005, T006 and T007, combined, when burning natural gas exclusively in the asphalt preheater.

Emissions of PM<sub>10</sub> shall not exceed 3.80 tons per year (TPY), based upon a rolling, 12-month summation, from emissions units P004, P005, T006 and T007, combined, when burning natural gas in combination with the maximum allowable amount of No. 2 fuel oil in the asphalt preheater.

Applicable Compliance Methods:

Compliance with the rolling, 12-month summations of SO<sub>2</sub> and PM<sub>10</sub> shall be demonstrated by the recordkeeping requirements in d)(1) and d)(2).

The rolling, 12-month SO<sub>2</sub> and PM<sub>10</sub> emissions limitations were calculated based on information submitted in PTI Application A0038654, February 2010, for Permit Number P0105996 (superseded with PTI P0108369):

109,000 tons of asphalt/yr x 0.86 lb of SO<sub>2</sub>/ton of asphalt x 1 Ton/2000 lbs = 46.87 TPY SO<sub>2</sub>; and

88.48 MMcf of natural gas/yr x 0.6 lb of SO<sub>2</sub>/MMcf of natural gas x 1 Ton/2000 lbs = 0.03 TPY of SO<sub>2</sub>.

Total when burning natural gas exclusively: 46.87 TPY + 0.03 TPY = 46.90 TPY SO<sub>2</sub>.

99,400 tons of asphalt/yr x 0.86 lb of SO<sub>2</sub>/ton asphalt x 1 Ton/2000 lbs = 42.74 TPY of SO<sub>2</sub>;

59.75 MMcf of natural gas/yr x 0.6 lb of SO<sub>2</sub>/MMcf of natural gas x 1 Ton/2000 lbs = 0.02 TPY of SO<sub>2</sub>; and

203,720 gallons of fuel oil/yr x 142(0.5)lb of SO<sub>2</sub>/1000 gallons of fuel oil x 1 Ton/2000 lbs = 7.23 TPY of SO<sub>2</sub>.

Total when burning natural gas in combination with maximum fuel oil: 42.74 TPY + 0.02 TPY + 7.23 TPY = 49.99 TPY SO<sub>2</sub>

109,000 tons of asphalt/yr x 0.055 lb of PM<sub>10</sub>/ton of asphalt x 1 Ton/2000 lbs = 3.00 TPY of PM<sub>10</sub>; and

88.48 MMcf of natural gas/yr x 7.6 lbs of PM<sub>10</sub>/MMcf of natural gas x 1 Ton/2000 lbs = 0.34 TPY of PM<sub>10</sub>.

From T006 & T007 Tanks 4.09d calculations: 0.64 TPY of PM<sub>10</sub>.

Total when burning natural gas exclusively: 3.00 TPY + 0.34 TPY + 0.64 TPY = 3.98 TPY of PM<sub>10</sub>.

99,400 tons of asphalt/yr x 0.055 lb of PM<sub>10</sub>/ton of asphalt x 1 Ton/2000 lbs = 2.73 TPY of PM<sub>10</sub>;

59.75 MMcf of natural gas/yr x 7.6 lbs of PM<sub>10</sub>/MMcf of gas x 1 Ton/2000 lbs = 0.23 TPY of PM<sub>10</sub>;

203,720 gallons of fuel oil/yr x 0.002 lb of PM<sub>10</sub>/gallon of fuel oil x 1 Ton/2000 lbs = 0.20 TPY of PM<sub>10</sub>; and

From T006 & T007 Tanks 4.09d calculations: 0.64 TPY of PM<sub>10</sub>.

Total when burning natural gas in combination with maximum fuel oil: 2.73 TPY + 0.23 TPY + 0.20 TPY + 0.64 TPY = 3.80 TPY PM<sub>10</sub>

f. Emission Limitations:

PE/PM<sub>10</sub> shall not exceed 3.34 tons per year (TPY) from emissions units P004 and P005, combined, when burning natural gas exclusively in the asphalt preheater.

PE/PM10 shall not exceed 3.16 tons per year (TPY) from emissions units P004 and P005, combined, when burning natural gas in combination with the maximum allowable amount of No. 2 fuel oil in the asphalt preheater.

Applicable Compliance Methods:

Compliance with the annual emission limitations shall be demonstrated by the PE/PM10 emissions from P004 and P005, as calculated in the recordkeeping requirements in d)(1) and d)(2).

The annual emission limitations/voluntary restrictions were calculated based on information submitted in PTI Application A0038654, February 2010, for Permit Number P0105996 (superseded with PTI P0108369):

109,000 tons of asphalt/yr x 0.055 lb of PM10/ton of asphalt x 1 Ton/2000 lbs = 3.00 TPY of PM10; and

88.48 MMcf of natural gas/yr x 7.6 lbs PM10/MMcf of natural gas x 1 Ton/2000 lbs = 0.34 TPY of PM10.

Total when burning natural gas exclusively: 3.00 TPY + 0.34 TPY = 3.34 TPY of PM10.

99,400 tons of asphalt/yr x 0.055 lb of PM10/ton of asphalt x 1 Ton/2000 lbs = 2.73 TPY of PM10;

59.75 MMcf of natural gas/yr x 7.6 lbs of PM10/MMcf of natural gas x 1 Ton/2000 lbs = 0.23 TPY of PM10; and

203,720 gallons of fuel oil/yr x 0.002 lb of PM10/gallon of fuel oil x 1 Ton/2000 lbs = 0.20 TPY of PM10.

Total when burning natural gas in combination with maximum fuel oil: 2.73 TPY + 0.23 TPY + 0.20 TPY = 3.16 TPY of PM10.

g. Emission Limitations:

VOC emissions shall not exceed 0.42 TPY from emissions units P004 and P005, combined, when burning natural gas exclusively in the asphalt preheater.

VOC emissions shall not exceed 0.35 TPY from emissions units P004 and P005, combined, when burning natural gas in combination with the maximum allowable amount of No. 2 fuel oil in the asphalt preheater.

Applicable Compliance Methods:

Compliance with the annual VOC emission limitations shall be demonstrated by the summation of the following calculations:

When consuming natural gas exclusively:

actual natural gas consumption, MMcf/yr x 5.5 lb VOC/MMcf natural gas x 1 Ton/2000 lbs = TPY VOC; and

actual asphalt blowing when consuming natural gas, Tons/yr x 0.0033 lb VOC/Ton asphalt x 1 Ton/2000 lbs = TPY VOC

When consuming natural gas in combination with fuel oil:

actual natural gas consumption, MMcf/yr x 5.5 lb VOC/MMcf natural gas x 1 Ton/2000 lbs = TPY VOC; and

actual fuel oil consumption, thousands of gal/yr x 0.34 lb VOC/thousand gallon x 1 Ton/2000 lbs = TPY VOC; and

actual asphalt blowing when consuming natural gas, Tons/yr x 0.0033 lb VOC/Ton asphalt x 1 Ton/2000 lbs = TPY VOC

g) Miscellaneous Requirements

(1) None.

**2. Emissions Unit Group -Storage Tanks: T006,T007,**

EU ID	Operations, Property and/or Equipment Description
T006	Flux Tank 1 - 374,000 gallon heated asphalt flux fixed roof storage tank with submerged filling
T007	Flux Tank 2 - 374,000 gallon heated asphalt flux fixed roof storage tank with submerged filling

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
- (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
- (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Emissions of volatile organic compounds (VOC) shall not exceed 7.65 tons per year (TPY) from each storage tank.  Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.32 TPY from each storage tank.  See b)(2)a., b)(2)b., b)(2)c., and b)(2)i.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06  OAC rule 3745-31-05(C), as effective 12/01/06 Voluntary limit to avoid BAT.	See b)(2)d.
c.	OAC rule 3745-31-05(D)  To avoid non-attainment review for PM2.5.  To avoid being subject to State air dispersion modeling requirements for PM10.	See b)(2)e. and c)(1).

d.	OAC rule 3745-21-09(L)(1)	See b)(2)f.
e.	OAC rule 3745-21-09(L)(4)	See b)(2)g.
f.	40 CFR Part 60, Subpart Kb	See b)(2)h.
g.	40 CFR Part 60, Subpart UU (40 CFR 60.470 - 40 CFR 60.474)  [In accordance with 40 CFR 60.470(b) these emissions units are storage tanks that store asphalt used for roofing subject to the emission limitations and/or control measures specified in this section.]	Once b)(2)a. is effective, then for each "storage tank" (as defined in 60.470(b)) the opacity limitation listed in b)(2)i. is retained as the effective limitation for these emissions units.  See b)(2)i.

(2) Additional Terms and Conditions

- a. 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.
- b. The permittee shall employ an emissions control device with a minimum control efficiency of 85% for PE and PM10.
- c. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- d. These rule paragraphs apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE and PM10 emissions from this air contaminant source since the uncontrolled potential to emit for PE and PM10 is less than 10 tons/yr.

Permit to Install (PTI) P0108369 for this air contaminant sources 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 BAT requirements under OAC rule 3745-31-05(A)(3):

- i. 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;
  - ii. The maximum annual throughput of flux asphalt from each tank shall not exceed 16,111,110 gallons per year; and
  - iii. VOC emissions shall not exceed 7.65 tons per year (TPY) from each storage tank.
- e. Emissions of PM10 shall not exceed 3.98 tons per year (TPY), based upon a rolling, 12-month summation, from emissions units P004, P005, T006 and T007, combined, when burning natural gas exclusively in the asphalt preheater.

Emissions of PM10 shall not exceed 3.80 tons per year (TPY), based upon a rolling, 12-month summation, from emissions units P004, P005, T006 and T007, combined, when burning natural gas in combination with the maximum allowable amount of No. 2 fuel oil in the asphalt preheater.

- f. These emissions units are exempt from the vapor control equipment requirements since the petroleum liquid stored product, as outlined in PTI Application A0038654 submitted February 4, 2010, does not have a true vapor pressure greater than 1.52 pound per square inch absolute.
- g. If an owner or operator places, stores, or holds in a fixed roof tank, that is not exempted pursuant to OAC rule 3745-21-09(L)(2), 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 OAC rule 3745-21-09(L)(1), the owner or operator shall so notify the Hamilton County Department of Environmental Services within thirty days of becoming aware of the occurrence.
- h. 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 hot asphalt 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 CFR 60.116b(e)(1) using the methods outlined in the emissions factor document "Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading", Environmental Progress, Vol. 18, No.4, 1999.
- i. See 40 CFR Part 60, Subpart UU (40 CFR 60.472(c)).

c) Operational Restrictions

- (1) The net annual throughput of flux asphalt from each tank shall not exceed 16,111,110 gallons per year based upon rolling, 12-month summations.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information for each storage tank:
  - a. The actual throughput of flux asphalt, in gallons; and
  - b. The rolling, 12-month summation of the flux asphalt throughput, in gallons.
  
- (2) For PM10 emissions, the permittee shall maintain the following information for emissions units P004, P005, T006 and T007, combined, when burning natural gas exclusively in the asphalt preheater:
  - a. The oxidized asphalt production rate, in tons;
  - b. The updated rolling, 12-month summation of the oxidized asphalt production rate, in tons; and
  - c. The updated rolling, 12-month summation PM10 emissions, in tons, from asphalt blowing and natural gas combustion in the asphalt preheater:

for PM10, the summation of: b. multiplied by 0.055 pound per ton of asphalt and divided by 2000 pounds per ton and, the actual amount of natural gas burned in the asphalt preheater, in millions of cubic feet per 12-month period, multiplied by 7.6 pounds per million cubic feet and divided by 2000 pounds per ton, and the summation of the PM10 emissions from T006 and T007 as calculated by the Tanks 4.09d emissions estimation software using the rolling, 12-month summation of the flux asphalt throughput as recorded in d)(1).
  
- (3) For PM10 emissions, the permittee shall maintain the following information for emissions units P004, P005, T006 and T007, combined, when burning natural gas in combination with No. 2 fuel oil in the asphalt preheater:
  - a. The amount of No. 2 fuel oil burned, in gallons;
  - b. The oxidized asphalt production rate, in tons;
  - c. The updated, rolling, 12-month summation of the amount of No. 2 fuel oil burned, in gallons;
  - d. The updated, rolling, 12-month summation of the oxidized asphalt production rate, in tons; and
  - e. The updated rolling, 12-month summation PM10 emissions, in tons, from asphalt blowing and natural gas and No. 2 fuel oil combustion in the asphalt preheater:

for PM10, the summation of: b. multiplied by 0.055 pound per ton of asphalt and divided by 2000 pounds per ton and, c. multiplied by 0.002 pound per gallon of No. 2 fuel oil, and divided by 2000 pounds per ton, and the actual amount of natural gas burned in the asphalt preheater, in millions of cubic feet per 12-month period, multiplied by 7.6 pounds per million cubic feet and divided by 2000

pounds per ton, and the summation of the PM10 emissions from T006 and T007 as calculated by the Tanks 4.09d emissions estimation software using the rolling, 12-month summation of the flux asphalt throughput as recorded in d)(1).

- (4) 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. 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.

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.

- (5) 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.
- (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 the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
  - b. the total duration of any visible emissions incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. All exceedances of the rolling, 12-month emissions limitations for PM10;
  - b. All exceedances of the rolling, 12-month flux asphalt throughput limitations;
  - c. All exceedances of the monthly average maximum storage temperature of the flux asphalt; and

- d. All instances of downtime of the capture (collection) system and/or the continuous temperature monitoring and recording equipment when the flux asphalt tank(s) contains product and is being heated.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (2) Except as provided in 40 CFR 60.116b(g), the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 cubic meters 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 cubic meters but less than 151 cubic meters 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.

- (3) The permittee shall submit semiannual written reports that identify:

- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
- b. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation & Voluntary Restriction:

Emissions of volatile organic compounds (VOC) shall not exceed 7.65 tons per year (TPY) from each storage tank.

Applicable Compliance Method:

Compliance with the annual VOC emissions limitation and voluntary restriction shall be demonstrated by inputting the actual operating parameters (product throughput, product vapor pressure(s), etc.) for the calendar year into the USEPA Tanks 4.09d emissions calculation software and generating an Annual Emissions Report in TPY VOC for each tank.

Tanks 4.09d was used to calculate the allowable VOC of 7.65 TPY based on the following data as reported in Application A0038654 for PTI P0105996 (superseded with PTI P0108369) submitted 2/4/2010:

- i. Allowable annual flux asphalt throughput 16,111,110 gallons;
- ii. Daily Liquid Surface Temperatures for a Heated Tank of 390 deg. F. average, minimum, & maximum;
- iii. Liquid Bulk Temperature for a Heated Tank of 390 deg. F.; and
- iv. Liquid Contents (asphalt) Vapor Pressures of 0.55 psia average, minimum, & maximum with a Vapor Molecular Weight of 84.

The uncontrolled PTE VOC from each tank in the absence of the flux asphalt Operational Restriction on throughput is 10.19 TPY.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitations:

Emissions of PM10 shall not exceed 3.98 tons per year (TPY), based upon a rolling, 12-month summation, from emissions units P004, P005, T006 and T007, combined, when burning natural gas exclusively in the asphalt preheater.

Emissions of PM10 shall not exceed 3.80 tons per year (TPY), based upon a rolling, 12-month summation, from emissions units P004, P005, T006 and T007, combined, when burning natural gas in combination with the maximum allowable amount of No. 2 fuel oil in the asphalt preheater.

Applicable Compliance Method:

Compliance with the rolling, 12-month summations of PM10 shall be demonstrated by the recordkeeping requirements in d)(2) and d)(3).

The rolling, 12-month PM10 emissions limitations were calculated based on information submitted in PTI Application A0038654, February 2010, for Permit Number P0105996 (superseded with PTI P0108369). See term f)(1)c.

c. Emission Limitation & Emission Exemption:

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.32 TPY from each storage tank.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE and PM10 emissions from this air contaminant source since the uncontrolled potential to emit for PE and PM10 is less than 10 tons/yr.

Applicable Compliance Method:

Compliance with the annual PE/PM10 emissions limitation shall be demonstrated by multiplying the actual VOC emissions as calculated in f)(1)a. by 0.22 and dividing by 0.78 pursuant to the method for calculating PE/PM10 outlined in "Estimates of Air Emissions from Asphalt Storage Tanks and Truck Loading",

Table 4, 1999, as included in Application A0038654 for PTI P0105996 (superseded with PTI P0108369) submitted 2/4/2010.

This method was used to calculate both the uncontrolled PTE of PE/PM10 of 2.87 TPY and the controlled PTE of PE/PM10 of 0.32 TPY based on the information supplied in the application:

7.65 TPY VOC, uncontrolled, restricted  $\times 0.22/0.78 = 0.32$  TPY PE/PM10 per tank; and

10.19 TPY VOC, uncontrolled, unrestricted  $\times 0.22/0.78 = 2.87$  TPY PE/PM10 per tank.

d. Emission Limitation:

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.

Applicable Compliance Method:

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

- i. The emissions testing shall be conducted within 3 months after issuance of PTI P0105996;
- ii. Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9;
- iii. 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;
- iv. Not later than 30 days prior to the propose 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 propose 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);
- v. 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

- vi. 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.

g) Miscellaneous Requirements

- (1) None.