

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

Permit To Install ~~04-01396~~

**A. Source Description**

This PTI is for modification of an existing batch mix hot mix asphalt plant. This plant is not portable. This modification includes: changing the burner from a 100mmBtu/hr open area burner to a 96 mmBtu/hr closed area burner; changing from a 4,000 pound batch plant to 8,000 pound batch plant; reclaimed asphalt pavement (RAP) will now enter the dryer via a collar near the burner versus entering at the base of the hot elevator as was done previously; an additional 200 ton asphalt storage silo will be added; and, the existing 50-ft truck scale will be replaced with an 80-ft truck scale.

The maximum capacity for this emissions unit is 240 tons/hr.

**B. Facility Emissions and Attainment Status**

This facility is a minor source for all criteria pollutants and HAPs. Lucas County is non-attainment for ozone, and either attainment or unclassified for all other criteria pollutants.

**C. Source Emissions**

Emission factors used to calculate allowable emissions are based on the Ohio BAT values, except for CO. The AP-42 emission factor will be used to set the CO stack emission limitation, since TDOES believes that the current proposed BAT value of 0.1 lb/ton may be inappropriate for use in this permit, because the Ohio's draft model sample calculations for asphalt plants states that "25% of those tested will be able to meet this allowable" for CO, NOx, and SO<sub>2</sub>, and this emissions unit is a modified unit, rather than a new unit. Since the draft Ohio BAT levels for NOx and SO<sub>2</sub> are greater than the AP-42 values, TDOES believes these values are appropriate in this permit.

Pollutant	Ohio preliminary BAT for stack emissions, lb/ton	AP-42 Tables 11.1-1, 11.1-5, and 11.1-6 dated 3/2004, lb/ton
CO	0.1	0.40
NOx	0.026	0.025
PE(controlled)	0.033	0.042
SO <sub>2</sub>	0.011	0.0046
VOC	0.032	0.0082

The permittee requested an operational restriction of 2,280 hrs/yr operation, however, this would result in the facility's allowable CO emissions exceeding the Title V threshold of 100 tons/yr. The permittee will be restricted to a production limitation of 250,000 tons asphalt per year to avoid having the facility subject to Title V requirements.

**STACK EMISSIONS**

CO: 240 tons/hr x 0.4 lb/ton = 96.0 lbs/hr  
 250,000 tons/yr x 0.4 lb/ton x ton/2000 lbs = 50 tons/yr

NOx: 240 tons/hr x 0.026 lb/ton = 6.3 lbs/hr  
 250,000 tons/yr x 0.026 lb/ton x ton/2000 lbs = 3.3 tons/yr

PE: 240 tons/hr x 0.033 lb/ton = 8.0 lbs/hr

$$250,000 \text{ tons/yr} \times 0.033 \text{ lb/ton} \times \text{ton}/2000 \text{ lbs} = 4.2 \text{ tons/yr}$$

$$\text{SO}_2: 240 \text{ tons/hr} \times 0.011 \text{ lb/ton} = 2.7 \text{ lbs/hr}$$

$$250,000 \text{ tons/yr} \times 0.011 \text{ lb/ton} \times \text{ton}/2000 \text{ lbs} = 1.4 \text{ tons/yr}$$

$$\text{VOC}: 240 \text{ tons/hr} \times 0.032 \text{ lb/ton} = 7.7 \text{ lbs/hr}$$

$$250,000 \text{ tons/yr} \times 0.032 \text{ lb/ton} \times \text{ton}/2000 \text{ lbs} = 4.0 \text{ tons/yr}$$

## FUGITIVE EMISSIONS

### **COLD END**

Fugitives emissions from the cold end are calculated as follows:  
Emission factors from AP-42 Table 11.12-1 dated 10/2001

Weigh hopper loading:  
250,000 tons of material/year X 0.0051 lb PE/ton of material = 1275 lb PE/yr

Aggregate transfer:  
135,000 tons of aggregate/year X 0.0069 lb PE/ton of aggregate = 932 lb PE/yr

Sand transfer:  
115,000 tons of sand/year X 0.0021 lb PE/ton of sand = 242 lb PE/yr

Cold end total emissions  
2,449 lb PE/yr X 1 ton/2000 pounds = 1.3 tons of PE from cold end

### **HOT END**

Fugitives emissions from the hot end (hot mix asphalt load-out and silo filling) are calculated as follows:

Asphalt plant silo filling and plant load-out emissions from AP-42, Table 11.1-14 dated 3/2004

Known:  
V = -0.5 Asphalt Volatility factor (default)                      T = 325 HMA mix temp (F) (default)

For silo filling, 1.4% of TOC is not VOC                      AP-42 Table 11.1-16 dated 3/2004  
For plant load-out, 7.3% of TOC is not VOC                      AP-42 Table 11.1-16 dated 3/2004

<u>Activity</u>	<u>Pollutant</u>	<u>Predictive Emission Factor Equation, lb/ton</u>
Silo filling	PE	$EF=0.000332+0.00105(-V)e^{((0.0251)(T+460)-20.43)}$
Load-out	PE	$EF=0.000181+0.00141(-V)e^{((0.0251)(T+460)-20.43)}$
Silo filling	VOC	$EF= [0.0504(-V)e^{((0.0251)(T+460)-20.43)}] \times (1-0.014)$
Load-out	VOC	$EF= [0.0172(-V)e^{((0.0251)(T+460)-20.43)}] \times (1-0.073)$
Silo filling	CO	$EF=0.00488(-V)e^{((0.0251)(T+460)-20.43)}$
Load-out	CO	$EF=0.00558(-V)e^{((0.0251)(T+460)-20.43)}$

Based on the above information, the emission factors and emissions are as follows.

<u>Activity</u>	<u>Pollutant</u>	<u>lb/ton</u>	<u>tons/yr (at 250,000 tons/yr production)</u>
Silo filling	PE	$5.86 \times 10^{-4}$	0.08

Load-out	PE	$5.22 \times 10^{-4}$	0.07
Silo filling	VOC	$1.20 \times 10^{-2}$	1.5
Load-out	VOC	$3.86 \times 10^{-3}$	0.5
Silo filling	CO	$1.18 \times 10^{-3}$	0.15
Load-out	CO	$1.35 \times 10^{-3}$	0.17

There are no air toxic emissions emitted at a rate equal to or greater than 1 ton/yr, so Ohio EPA's Air Toxics Policy does not apply.

**Total PTI Allowable Emissions**

$$\text{CO} = 50 \text{ tons/yr} + 0.15 \text{ ton/yr} + 0.17 \text{ ton/yr} = 50.32 \text{ tons/yr}$$

$$\text{NO}_x = 3.3 \text{ tons/yr}$$

$$\text{PE} = 4.2 \text{ tons/yr} + 1.3 + 0.08 + 0.07 = 5.65 \text{ tons/yr}$$

$$\text{SO}_2 = 1.4 \text{ tons/yr}$$

$$\text{VOC} = 4.0 + 1.5 + 0.5 = 6.0 \text{ tons/yr}$$

**D. Conclusion**

This facility continues to remain a minor source for all criteria pollutants and HAPs.



State of Ohio Environmental Protection Agency

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

**CERTIFIED MAIL**

Street Address:

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

Mailing Address:

Lazarus Gov.  
Center

**Application No:** 04-01396

**Fac ID:** 0448010386

**DATE:** 2/24/2005

HP Streicher, Inc  
Michael Iacopelli  
87065 5280 N Canton Center Rd, Ste 150  
Canton, MI 48187

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed of final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$1250** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

*Michael W. Ahern*

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

CC: USEPA

TDES

Toledo Metropolitan Area Council of Governments

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MI

**LUCAS COUNTY**

**PUBLIC NOTICE**

**ISSUANCE OF DRAFT PERMIT TO INSTALL 04-01396 FOR AN AIR CONTAMINANT SOURCE FOR  
HP Streicher, Inc**

On 2/24/2005 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **HP Streicher, Inc**, located at **2435 Dorr Street, Toledo, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 04-01396:

**Modification of existing batch mix hot mix asphalt plant with baghouse control to increase capacity to 240 tons/hr.**

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

Karen Granata, Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43602  
[(419)936-3015]



**Permit To Install  
Terms and Conditions**

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

**DRAFT PERMIT TO INSTALL 04-01396**

Application Number: 04-01396  
Facility ID: 0448010386  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: HP Streicher, Inc  
Person to Contact: Michael Iacopelli  
Address: 87065 5280 N Canton Center Rd, Ste 150  
Canton, MI 48187

Location of proposed air contaminant source(s) [emissions unit(s)]:

**2435 Dorr Street  
Toledo, Ohio**

Description of proposed emissions unit(s):

**Modification of existing batch mix hot mix asphalt plant with baghouse control to increase capacity to 240 tons/hr.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

HP Streicher, Inc

Facility ID: 0448010386

PTI Application: 04-01396

Issued: To be entered upon final issuance

**Part I - GENERAL TERMS AND CONDITIONS**

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

**1. Compliance Requirements**

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

**2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

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

**3. Records Retention Requirements**

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

**4. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any

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information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

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

**6. Permit Transfers**

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

**7. Air Pollution Nuisance**

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

**8. Termination of Permit to Install**

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

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

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

**HP Streicher, Inc**

**PTI Application: 04-01396**

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**Facility ID: 0448010386**

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

**10. Public Disclosure**

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

**11. Applicability**

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

**12. Best Available Technology**

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

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

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

HP Streicher, Inc

PTI Application: 04-01396

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Facility ID: 0448010386

**14. Construction Compliance Certification**

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

**15. Fees**

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

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

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	50.32
NO <sub>x</sub>	3.3
PE	5.65
SO <sub>2</sub>	1.4
VOC	6.0

HP St

PTI A

Emissions Unit ID: **P901****Issued: To be entered upon final issuance****PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P901 - Batch mix hot mix asphalt plant with a maximum design capacity of 240 tons per hour and controlled with a baghouse	OAC rule 3745-31-05 (A)(3)

OAC rule 3745-31-05(C)

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	<p style="text-align: center;"><u>Applicable Emissions Limitations/Control Measures</u></p>	
<p>40 CFR Part 60, Subpart I</p>	<p>Carbon monoxide (CO) emissions shall not exceed 0.40 pound per ton of asphalt produced</p>	<p>VOC emissions shall not exceed 4.0 tons per rolling 12-month period.</p>
	<p>Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 0.026 pound per ton of asphalt produced.</p>	<p>Asphalt Load Out Emissions Emissions from load out operations shall not exceed 0.17 ton CO per rolling 12-month period, 0.07 ton PE per rolling 12-month period and 0.5 ton of VOC per rolling 12-month period.</p>
<p>OAC rule 3745-17-07(A)(1) OAC rule 3745-17-11(B)(1) OAC rule 3745-17-07(B) OAC rule 3745-17-08</p>	<p>Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 0.011 pound per ton of asphalt produced.</p>	<p>Asphalt Silo Filling Emissions</p>
<p>OAC rule 3745-18-06(E)</p>	<p>Volatile organic compound (VOC) emissions shall not exceed 0.032 pound per ton of asphalt produced.</p>	<p>Emissions from silo filling operations shall not exceed 0.15 ton CO per rolling 12-month period, 0.08 ton PE per rolling 12-month period and 1.5 tons VOC per rolling 12-month period.</p>
	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C) and 40 CFR Part 60, Subpart I.</p>	<p>Cold End Fugitive Dust Emissions</p>
	<p>See Section A.I.2.a. through g. below.</p>	<p>Emissions of fugitive dust associated with the weigh hopper loading, aggregate transfer operations and sand transfer operations shall not exceed 1.3 tons of PE per rolling 12-month period.</p>
	<p>CO emissions shall not exceed 50.0 tons per rolling 12-month period.</p>	
	<p>NO<sub>x</sub> emissions shall not exceed 3.3 tons per rolling 12-month period.</p>	<p>PE shall not exceed 0.04 grains per dry standard cubic foot.</p>
	<p>Particulate emissions (PE) shall not exceed 4.2 tons per rolling 12-month period.</p>	<p>Visible emissions from the stack shall not exhibit 20% opacity, or greater</p>
	<p>SO<sub>2</sub> emissions shall not exceed 1.4 tons per rolling 12-month period.</p>	<p>The emissions limitations specified by these rules are less stringent than the emission limitations established</p>

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**HP Streicher, Inc**  
**PTI Application: 04-01306**  
**Issued**

**Facility ID: 0448010386**

**Emissions Unit ID: P901**

pursuant to OAC rule  
3745-31-05(A)(3).

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**2. Additional Terms and Conditions**

- 2.a** The permittee shall ensure that the baghouse is operated with sufficient air volume to eliminate visible fugitive emissions from the rotary drum.
- 2.b** Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see section A.2.a).
- 2.c** There shall be no visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper.
- 2.d** Visible emissions of fugitive dust (from areas other than the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper) shall be less than or equal to 10% opacity, as a 3-minute average.
- 2.e** The drop height of the front end loader bucket shall be minimized to the extent possible in order to minimize or eliminate visible emissions of fugitive dust from the aggregate storage bins.
- 2.f** The aggregate loaded into the storage bins shall have a moisture content sufficient to minimize the visible emissions of fugitive dust from conveyors and all transfer points to the dryer.
- 2.g** The requirements of this rule include compliance with applicable requirements of 40 CFR Part 60, Subpart I.

**B. Operational Restrictions**

- 1. The pressure drop across the fabric filter shall be maintained within the range of 1 to 8 inches of water while the emissions unit is in operation.
- 2. The maximum annual asphalt production rate for this emissions unit shall not exceed 250,000 tons per year, based upon a rolling, 12-month summation of the asphalt production.

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

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Tons of Hot Mix Asphalt Produced</u>
1	100,000

HP St

PTI A

Emissions Unit ID: P901

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1-2	200,000
1-3	250,000
1-4	250,000
1-5	250,000
1-6	250,000
1-7	250,000
1-8	250,000
1-9	250,000
1-10	250,000
1-11	250,000
1-12	250,000

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

3. The permittee shall operate and maintain the fuel burner in accordance with the manufacturer's recommendations to ensure efficient combustion of the fuel(s) and to ensure compliance with the applicable emission limitations for CO and NOx.
4. The permittee may substitute reclaimed asphalt pavement (RAP) in the raw material feed mix in amounts not to exceed 50 percent of all aggregate materials.
5. The permittee shall only burn natural gas as fuel in this emissions unit.

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

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.
2. The permittee shall maintain monthly records of the following information:
  - a. the asphalt production for each month;
  - b. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the asphalt production;
  - c. during the first 12 calendar months of operation, the permittee shall record the cumulative asphalt production for each calendar month; and

- d. the maximum percentage of RAP used for any mix.
3. The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when the weather conditions allow, for any abnormal (above the allowable) visible particulate emissions from the baghouse servicing this emissions unit. If visible particulate emissions are observed, the permittee shall note the following in the operation log:
    - a. the color of the visible emissions;
    - b. the cause of the visible emissions;
    - c. the total duration of the visible emission incident; and
    - d. corrective actions taken to correct the excess visible particulate emissions.
  4. The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the hot aggregate elevator, vibrating screens, weigh hopper, rotary drum, the aggregate storage bins and cold aggregate elevator/conveyor serving this emissions unit. If visible emissions are observed, the permittee shall note the following in the operation log:
    - a. the location and color of the visible emissions;
    - b. the cause of the visible particulate emissions;
    - c. the total duration of any visible emissions incident; and
    - d. any corrective actions taken to minimize or eliminate the visible emissions.
  5. The permittee shall properly operate and maintain portable devices to monitor the concentration of CO, NO<sub>x</sub>, and oxygen (O<sub>2</sub>) in the stack exhaust gases from this emissions unit at the frequency specified under Section E.2. - Burner Tuning. The permittee is not required to purchase these monitoring devices and may either hire a contractor to perform the monitoring or the permittee may rent this monitoring equipment. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall maintain records of each portable monitoring device's calibration.
  6. While performing each burner tuning, the permittee shall record the results of the burner tuning using the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form (as found in term F.2). An alternative form may be used upon approval of the appropriate Ohio EPA District Office or local air agency.

#### D. Reporting Requirements

**Issued: To be entered upon final issuance**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These reports are due by the dates described in Part I - General Terms and Condition of this permit under section (A)(2).
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling 12-month asphalt production limitation. These reports are due by the dates described in Part I - General Terms and Conditions of this permit under section (A)(2).
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the RAP limitation specified above. These reports are due by the dates described in Part I - General Terms and Condition of this permit under section (A)(2).
4. The permittee shall submit semiannual written deviation (excursion) reports that (a) identify all days during which any abnormal (above the allowable) visible particulate emissions were observed from the stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Ohio EPA district office or local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. The permittee shall submit semiannual written deviation (excursion) reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the hot aggregate elevator, vibrating screens, weigh hopper, rotary drum, the aggregate storage bins and cold aggregate elevator/conveyor serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA district office or local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
6. The permittee shall submit a copy of the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form to the appropriate Ohio EPA district office or local air agency to summarize the results of each burner tuning procedure. These reports shall be submitted to the Ohio EPA district office or local air agency by January 31 of each year and shall cover the previous calendar year.

**E. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitations:

NO<sub>x</sub> emissions shall not exceed 0.026 pound per ton of asphalt produced;

SO<sub>2</sub> emissions shall not exceed 0.011 pound per ton of asphalt produced;

CO emissions shall not exceed 0.40 pound per ton of asphalt produced;

VOC emissions shall not exceed 0.032 pound per ton of asphalt produced; and

PE shall not exceed 0.04 gr/dscf.

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

- i. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 120 days after initial startup of the emissions unit.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE, VOC, CO, NO<sub>x</sub> and SO<sub>2</sub>, and opacity from the baghouse exhaust.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) for:

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

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

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

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

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

For opacity, Method 9 of 40 CFR Part 60, Appendix A

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

- iv. The test(s) shall be conducted while this emissions unit is operating at or near its maximum capacity for CO, NO<sub>x</sub>, PE, SO<sub>2</sub>, VOC, and opacity and employing RAP to verify VOC emissions, unless otherwise specified or approved by the Ohio EPA District Office or local air agency.

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- v. The permittee shall record the following operating parameters during the emissions test:
  - (a) asphalt production rate for each test run, in tons/hr; and
  - (b) RAP percentage of asphalt product for each test run.

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

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

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

- b. Emissions Limitation:

PE shall not exceed 4.2 tons per rolling 12-month period.

Applicable Compliance Method:

Prior to the emission test required under Section E.1.a., the permittee shall demonstrate compliance by multiplying the rolling, 12-month production rate by the Ohio BAT particulate emission factor for asphalt plants (0.033 lb/ton) and divided by 2000 lbs/ton. After the emission test required by Section E.1.a., compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of PE per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period (as derived from the records required by term and condition C.3 above), and dividing by 2000.

c. Emission Limitation:

VOC emissions shall not exceed 4.0 tons per rolling 12-month period.

Applicable Compliance Method:

Prior to the emission test required under Section E.1.a., the permittee shall demonstrate compliance by multiplying the rolling, 12-month production rate by the allowable VOC emission rate (0.032 lb/ton) and divided by 2000 lbs/ton. After the emission test required by Section E.1.a., compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of VOC per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period (as derived from the records required by term and condition C.3 above), and dividing by 2000.

d. Emission Limitation:

CO emissions shall not exceed 50 tons per rolling 12-month period.

Applicable Compliance Method:

Prior to the emission test required under Section E.1.a., the permittee shall demonstrate compliance by multiplying the rolling, 12-month production rate by the allowable CO emission rate (0.04 lb/ton) and divided by 2000 lbs/ton. After the emission test required by Section E.1.a., compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of CO per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period (as derived from the records required by term and condition C.3 above), and dividing by 2000.

e. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 1.4 tons per rolling 12-month period.

Applicable Compliance Method:

Prior to the emission test required under Section E.1.a., the permittee shall demonstrate compliance by multiplying the rolling, 12-month production rate by the allowable SO<sub>2</sub> emission rate (0.011 lb/ton) and divided by 2000 lbs/ton. After the emission test required by Section E.1.a., compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds

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of SO<sub>2</sub> per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period (as derived from the records required by term and condition C.3 above), and dividing by 2000.

## f. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 3.3 tons per rolling 12-month period.

## Applicable Compliance Method:

Prior to the emission test required under Section E.1.a., the permittee shall demonstrate compliance by multiplying the rolling, 12-month production rate by the allowable NO<sub>x</sub> emission rate (0.026 lb/ton) and divided by 2000 lbs/ton. After the emission test required by Section E.1.a., compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of NO<sub>x</sub> per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period (as derived from the records required by term and condition C.3 above), and dividing by 2000.

## g. Emission Limitation:

Visible particulate emissions from the stack shall not exhibit 20% opacity or greater.

## Applicable Compliance Method:

Compliance shall be determined using Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in 40 CFR 60.11.

## h. Emission Limitation:

No visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens, rotary drum and weigh hopper.

## Applicable Compliance Method:

Compliance with the limitations on visible emissions of fugitive dust found in Section A.1 of this permit shall be demonstrated by the monitoring and record keeping in Section C.4. If required, compliance shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR Part 60, Standards of Performance for New Stationary Sources, as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

i. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

j. Emissions Limitation:

Fugitive PE from the cold end shall not exceed 1.3 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be assumed based upon the following worst case calculations.

Fugitive emissions from the cold end are calculated as follows:  
Emission factors from AP-42 Table 11.12-1 dated 10/2001

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Weigh hopper loading:

250,000 tons of material/year X 0.0051 lb PE/ton of material = 1275 lb PE/yr

Aggregate transfer:

135,000 tons of aggregate/year X 0.0069 lb PE/ton of aggregate = 932 lb PE/yr

Sand transfer:

115,000 tons of sand/year X 0.0021 lb PE/ton of sand = 242 lb PE/yr

The sum of the above is 2,449 lb PE/yr X 1 ton/2000 pounds = 1.3 tons of PE

k. Emission Limitation:

0.15 ton/yr CO emissions from silo filling

0.08 ton/yr PE from silo filling

1.5 tons/yr VOC emissions from silo filling

0.17 ton/yr CO emissions from plant load-out

0.07 ton/yr PE from plant load-out

0.5 ton/yr VOC emissions from plant load-out

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be assumed based upon the following worst case calculations.

Fugitive emissions from the hot end (hot mix asphalt load-out and silo filling) are calculated as follows:

Asphalt plant silo filling and plant load-out emissions from AP-42, Table 11.1-14 dated 3/2004

Known:

V = -0.5 Asphalt Volatility factor (default)

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

For silo filling, 1.4% of TOC is not VOC

AP-42 Table 11.1-16 dated 3/2004

For plant load-out, 7.3% of TOC is not VOC

AP-42 Table 11.1-16 dated 3/2004

<u>Activity</u>	<u>Pollutant</u>	<u>Predictive Emission Factor Equation, lb/ton</u>
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Silo filling	PE	$EF=0.000332+0.00105(-V)e^{((0.0251)(T+460)-20.43)}$
Load-out	PE	$EF=0.000181+0.00141(-V)e^{((0.0251)(T+460)-20.43)}$
Silo filling	VOC	$EF= [0.0504(-V)e^{((0.0251)(T+460)-20.43)}] \times (1-0.014)$
Load-out	VOC	$EF= [0.0172(-V)e^{((0.0251)(T+460)-20.43)}] \times (1-0.073)$
Silo filling	CO	$EF=0.00488(-V)e^{((0.0251)(T+460)-20.43)}$
Load-out	CO	$EF=0.00558(-V)e^{((0.0251)(T+460)-20.43)}$

Based on the above information, the emission factors and emissions are as follows.

<u>Activity</u>	<u>Pollutant</u>	<u>lb/ton</u>	<u>tons/yr (at 250,000 tons/yr production)</u>
Silo filling	PE	$5.86 \times 10^{-4}$	0.08
Load-out	PE	$5.22 \times 10^{-4}$	0.07
Silo filling	VOC	$1.20 \times 10^{-2}$	1.5
Load-out	VOC	$3.86 \times 10^{-3}$	0.5
Silo filling	CO	$1.18 \times 10^{-3}$	0.15
Load-out	CO	$1.35 \times 10^{-3}$	0.17

## 2. Burner Tuning

## a. Introduction

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

## b. Qualifications for Burner Tuning

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

## c. Burner Tuning Procedure

The first steps concerning burner tuning involve setting the pollutant baseline levels (concentrations). These baselines shall be set during the initial U.S. EPA approved emissions testing that demonstrated the emissions unit was in compliance with all applicable emissions limitations as described in term E.1.a. The baselines shall be

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determined for CO and NO<sub>x</sub> emissions. Record these values on the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form (as found in Section F.2) in the "Recent Stack Test Basis Values" column.

Once the pollutant baseline levels are set, the burner shall be next tuned based on the frequency described in Section E.2.d. The general procedure for tuning the burner involves the following steps:

- i. Review the plant operations to ensure the plant is operating normally.
- ii. Confirm that the portable monitor is calibrated per the manufacturer's specifications.
- iii. Using the calibrated monitor, measure the stack exhaust gas values for CO and NO<sub>x</sub>. Record the values in the "Pre Tuning" results column on the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form.
- iv. Compare the measured stack exhaust gas values with the pollutant baseline values. If all of the measured stack exhaust gas values are equal to or less than 110 percent of the pollutant baseline values, then it is not necessary to tune the burner. Go on to Section E.2.c.v below.

The permittee shall have the burners tuned within two calendar weeks of any measured stack exhaust values greater than 110 percent of the baseline values. Make any necessary adjustments and repairs. Repeat Sections E.2.c.iii. and iv. until the measured stack exhaust gas values are equal to or less than 110 percent of the pollutant baseline values.

- v. Once all of the measured stack exhaust gas values are within the 110 percent of the pollutant baseline values, record the measured stack exhaust gas values in the "Post Tuning" results column on the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form.
- vi. Within 30 days of completion of the burner tuning, submit a copy of the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form to the Ohio EPA District Office or local air agency responsible for the permitting of the facility.

d. Burner Tuning Frequency

The permittee shall conduct the burner tuning procedure within 30 calendar days prior to and 15 production days after commencement of the production season. The permittee shall conduct another burner tuning procedure within 10 production days before or after June 1st of each year and within 10 production days before or after September 1st of each year. For purposes of this permit, the production season is defined as the time period

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between the date the first ton of asphalt is produced and the date that the last ton of asphalt is produced during the same calendar year.

**F. Miscellaneous Requirements**

- 1. The following emissions unit is subject to the applicable provision of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR part 60.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
P901	240 ton/hr asphalt plant	Subpart I

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

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

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

Reports are to be sent to the Toledo Division of Environmental Services.

- 2. Burner Tuning Form (see next page)

## BURNER TUNING REPORTING FORM FOR ASPHALT CONCRETE PLANTS

Facility ID: <b>0448010386</b>	Emissions Unit ID: <b>P901</b>	Tuning Date:
Legal Name:	Other Company Name (if different than legal name):	
Mailing Address:	Other Company Site Address: (if different than mailing address):	
City, State, Zip Code:	Other Company City, County, Zip Code:	
Site Contact Person:	Site Contact Telephone Number:	
Site Contact Title:	Site Contact Fax Number:	
Name of company performing tuning:	Name of company performing emission monitoring:	
Type of plant (ie: batch, drum mix, etc.):	Calibration date for analyzers:	

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

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Fuel employed during tuning:  Natural Gas    #2 Fuel Oil    #4 Fuel Oil    Used Oil    Other (describe)

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### Tuning Results:

Parameter	Recent Stack Test Pollutant Baseline Levels <sup>1</sup>	Results	
		Pre Tuning	Post Tuning <sup>3</sup>
Fuel flow to the burner (gallon/hr) (for fuel oil and on-spec used oil)			
Differential pressure of the baghouse (in water)			
Fuel pressure (psi)			
For burners that require compressed air for proper operation, pressure at the burner (psi)			
Carbon Monoxide (CO) concentrations (ppm) <sup>2</sup>			
NOx concentrations (ppm) <sup>2</sup>			
Oxygen concentrations (%) <sup>2</sup>			
Asphalt Production (tons/hr)			

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

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

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

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

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

**HP Streicher, Inc**

**PTI Application: 04-01396**

**Issued: To be entered upon final issuance**

**Facility ID: 0448010386**

**Emissions Unit ID: P901**

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