

Synthetic Minor Determination and/or Netting Determination

Permit To Install 15-01564

A. Source Description

This emission unit is a 300 tons/hr. continuous drum hot mix asphalt(HMA) plant located in Canton, Stark County, Ohio and designated as emission unit P901. The emission unit utilizes, natural gravel, sand, and asphaltic cement to create hot mix asphalt at elevated temperatures. The permittee is requesting this synthetic minor permit in order to revise their current raw materials usage capability to include RAP and blast furnace slag(a potential SO₂ source). The synthetic minor permit will also restrict the PTE to below the Title V threshold limit of 100 tpy.

B. Facility Emissions and Attainment Status

The emission unit emits CO, NO_x, SO₂, VOC, PM, PM-10, and VOC. Stark County is currently in attainment for all criteria pollutants.

C. Source Emissions

The following calculations were used as the basis for establishing the mass emission hourly and annual synthetic minor limitations:

Carbon Monoxide(CO):

An emission factor of 0.29 lbs CO/ton HMA(53.1 lbs CO/hr / 179 tons HMA/hr.) was used to calculate the emission limit of 87 lbs CO/hour. This emission factor used was derived from the most recent stack test conducted on the emission unit. The emission unit used fuel oil as fuel during the test.

$0.29 \text{ lbs CO/ton HMA} \times 300 \text{ tons HMA/hr rated capacity} = 87 \text{ lbs CO/hr.}$

The CO PTE for this emission unit is $300 \text{ tons HMA/hr.} \times 8760/2000 \times 0.29 \text{ lbs CO/ton HMA} = 381 \text{ tons CO/year.}$

The annual synthetic minor limit of 87 tons per year for CO was calculated using a restricted asphalt production of 600,000 tons HMA/year as follows:

$((600,000 \text{ tons asphalt per year maximum}) \times (0.29 \text{ lbs CO/ton HMA}))/2000 \text{ lbs CO/ton CO} = 87 \text{ tons CO/year}$ as a rolling, 12 month summation.

The restricted asphalt production of 600,000 tons HMA/year was provided in the permit application by CAE, OTA. The emission factor developed for CO from data generated during the stack test conducted using number 4 on-spec waste oil as fuel in the emission unit on December 10, 2003 was used.

Nitrogen Oxides(NO_x):

An emission factor of 0.06 lbs NO_x/ton HMA was used to calculate the hourly emission rate of 18 lbs NO_x/hour. This emission factor was developed from data obtained during a stack test conducted using number 4 on-spec waste oil as fuel in the emission unit on December 10, 2003. During the stack test, the emission unit produced an average of 179 tons HMA/hr. which is only 60 % of rated capacity. The emission factors for NO_x in AP-42(Fifth edition, Section 11, Table 11.1-7) are unreliable since they are "C" and "D" rated factors.

Emission factor calculation: $(10.82 \text{ lbs NO}_x/\text{hr})/179 \text{ tons HMA/hr.} = 0.06 \text{ lbs NO}_x/\text{ton HMA.}$

$0.06 \text{ lbs NO}_x/\text{ton HMA} \times 300 \text{ tons HMA/hr.} = 18 \text{ lbs NO}_x/\text{hr.}$ (Used for gas or oil firing)

The PTE based on this hourly mass emission rate is

$18 \text{ lbs NO}_x/\text{hr.} \times /2000 =$

$0.06 \text{ lb NO}_x/\text{ton} \times 600,000 \text{ tons/yr} = 18 \text{ tons}$

You may want to go for the Natural Gas limit instead?

When burning natural gas, the estimated PTE for NO_x is

$(135 \text{ MMBTU/hr.} / 1000 \text{ Btu/scf}) \times 280 \text{ lbs NO}_x/\text{MMscf} \times 8760 \text{ hr/yr.}/2000 = 165.6 \text{ tons NO}_x/\text{yr.}$

This emission unit only ran at 60 % of it's maximum capacity during the stack test providing the data for calculating the emission factor specified above. It is anticipated that NO_x emissions increases are not linear with increases in asphalt production. It is very possible that NO_x emissions could exceed Title V thresholds at increased production levels. Since no NO_x emission data is available at maximum production and the PTE for NO_x while burning natural gas exceeds the Title V threshold, Canton has decided to restrict the annual NO_x emissions to 78.8 lbs NO_x/year on a rolling, 12 month summation basis.

Volatile Organic Compounds:

The emission factor for VOC(as carbon) was established based on stack test data obtained during the Sept. 17 and 18, 2003 stack test conducted for P901. Fuel Oil was burned as fuel during the stack test. During the test the emission unit operated at an average production rate of 179 tons/hr. This emission factor was calculated as follows:

$(31.9 \text{ lbs VOC/hr} / 179 \text{ tons HMA/hr}) = 0.18 \text{ lbs VOC/ton HMA}$

This emission factor was used because the AP-42 emission factor when burning any fuel is unreliable. The emission factor, 0.032 lbs VOC/ton HMA, is either a "C" or "E" rated factor depending on the type of fuel burned.

Based on the stack test derived emission factor, the hourly mass emission rate limitation was calculated when burning oil as:

$0.18 \text{ lbs VOC/ton HMA} \times 300 \text{ tons HMA/hr. maximum} = 53.5 \text{ lbs VOC/hr. as carbon}$

The annual VOC PTE for this emissions unit based on the 53.5 lbs VOC/hr. limit is 234.3 tons VOC/year.

$53.5 \text{ lbs VOC/hr. as carbon} \times 8760/2000 = 234.3 \text{ tons VOC/year}$

The annual synthetic minor limit of tons per year for VOC was calculated using a restricted asphalt production of 600,000 tons HMA/year as follows:

$((600,000 \text{ tons asphalt per year maximum}) \times (0.18 \text{ lbs VOC/ton HMA}))/2000 \text{ lbs VOC/ton VOC}$
= 54 tons VOC/year as a rolling, 12 month summation.

The restricted asphalt production of 600,000 tons HMA/year was provided in the permit application by CAE, OTA.

PM/PM-10(stack):

The PM/PM-10 emissions from the stack of P901 (post controlled) are limited to 0.04 grains/dscf in this permit. Based on the stack gas flow rate from the most recent stack test(25,000 dscfm) on December 10, 2003, this grain loading equates to 8.57 lbs/hr. of PM/PM-10. The post control PTE for this emission unit based on this hourly emission rate is:

$$8.57 \text{ lbs PM-10/hr.} \times /2000 = .$$

Sulfur Dioxide(SO2):

Northstar Asphalt Inc. has expressed their desire to continue to produce HMA using slag as aggregate while potentially burning number 4 fuel oil. Canton LAA requested that the company test the emission unit while using slag since the use of slag may introduce additional sulfur compounds to the HMA mix thereby generating additional SO2 emissions. During a recent stack test conducted for emission unit P902(conducted Sept. 17 and 18, 2003), fuel oil was burned while producing HMA and while using blast furnace slag as aggregate. The test results revealed an average hourly emission rate of 0.22 lbs SO2/hr. Since the hourly mass emission rate obtained during the stack test is very low, the AP-42 emission factor when burning waste oil as fuel to produce HMA is a "B" rated emission factor for SO2(0.058 lbs SO2/ton HMA) was used to estimate the hourly mass emission limit when burning fuel oil. The limit when slag is not used is estimated to be:

$$0.058 \text{ lbs SO2/ton HMA produced} \times 300 \text{ tons HMA/hr.} = 17.4 \text{ lbs SO2/hr.}$$

The limit when slag is used when burning waste oil is estimated to be:

$$17.4 \text{ lbs SO2/hr.} \times 1.4(\text{factor to account for slag usage based on the variability of slag materials}) = 24.4 \text{ lbs SO2/hr.}$$

The annual PTE for SO2 based on this emission limit is:

$$24.4 \text{ lbs SO2/hr.} \times 8760/2000 = 107 \text{ tons/yr.}$$

The restricted PTE for SO2 is calculated as follows:

$$(600,000 \text{ maximum tons of HMA / yr.}) \times 0.058 \times 1.4 /2000$$
$$= 24.4 \text{ tons SO2/yr. on a rolling, 12 month summation}$$

In summation, the following hourly mass emission limits were established for this permit:

Using gas as a fuel while processing slag based aggregate: 1.0 lb SO2/hr.

Using gas as a fuel(no slag processing): 0.1 lbs SO2/hr.
(0.6 lbs SO2/MMscf x 140,000 scf/hr. = 0.084 lbs SO2/hr.)

Using fuel oil without slag : 17.4 lbs SO₂/hr.
(Using the "B"rated emission factor in AP-42 as indicated above)

Using fuel oil while processing slag based aggregate: 24.4 lbs SO₂/hr.

These emission limits may need to be re-evaluated based on the results of the stack test required in section A.V of the permit.

PE(fugitives):

Calculations using AP-42 emission equations for fugitives and using 600,000 tons HMA/yr.(maximum restricted tons HMA/yr.) $\times 8760/6840 = 768,421$ tons HMA/yr. provided potential emissions well in excess of 100 tons/yr. PE fugitives. Canton calculated the emission limits based on the restricted production values as shown below. The quantities of sand and aggregate(or slag) used were calculated using numbers provided by Northstar Asphalt in their permit application. The total annual fugitive PM emission limit for this emissions unit was calculated to be 2.76 tons PE/year as shown below:

Fugitives emissions from the cold end are calculated as follows

$((600,000 \text{ tons of material/year} \times 0.0051 \text{ lb PM/ton of material}) + ((600,000 \times 0.423) \text{ tons of aggregate/year} \times 0.0069 \text{ lb PM/ton of aggregate}) + ((600,000 \times 0.423) \text{ tons of sand/yr.} \times 0.0021 \text{ lb PM/ton of sand})) \times (1 \text{ ton}/2000 \text{ pounds}) = 2.67 \text{ tons of PM/yr.}$

Fugitives emissions from the hot end are calculated as follows

$(600,000 \text{ tons of asphalt produced} \times 0.0003 \text{ lb of PM/ton of asphalt produced}) \times (1 \text{ ton}/2000 \text{ pounds}) = 0.09 \text{ tons of PM/yr.}$

Total fugitive emissions are therefore 2.76 tons/yr.

The hourly PM emission limit was calculated using the maximum no. of operating hours per year reported by the permittee which is 6480 hours:

$2.76 \text{ tons PE/year} \times 2000 \text{ lbs/ton} \times (1/6480 \text{ hr./yr.}) = 0.86 \text{ lbs PE/hr.}$

PM-10(fugitives):

Calculations using AP-42 emission equations for fugitives and using 600,000 tons HMA/yr.(maximum restricted tons HMA/yr.) $\times 8760/6840 = 768,421$ tons HMA/yr. provided potential emissions well in excess of 100 tons/yr. PM-10 fugitives. Canton calculated the emission limits based on the restricted production values as shown below. The quantities of sand and aggregate(or slag) used were calculated using numbers provided by Northstar Asphalt in their permit application. The total annual fugitive PM emission limit for this emissions unit was calculated to be tons PE/year as shown below:

Total fugitive PM-10 emissions equal the summation of the fugitives from the cold end and the hot end of the plant operations.

Fugitives emissions from the cold end are calculated as follows

$$((600,000 \text{ tons of material/year} \times 0.0024 \text{ lb PM-10/ton of material}) + (253,800 \text{ tons of aggregate/year} \times 0.0033 \text{ lb PM-10/ton of aggregate}) + (253,800 \text{ tons of sand/year} \times 0.00099 \text{ lb PM-10/ton of sand})) \times (1 \text{ ton}/2000 \text{ pounds}) = 1.26 \text{ tons of PM-10}$$

Fugitives emissions from the hot end are calculated as follows

$$(600,000 \text{ tons of asphalt produced} \times 0.0003 \text{ lb of PM-10/ton of asphalt produced}) \times (1 \text{ ton}/2000 \text{ pounds}) = 0.09 \text{ tons of PM-10.}$$

Total fugitive emissions are therefore 1.35 tons PM-10.

The hourly PM-10 emission limit was calculated using the maximum no. of operating hours per year reported by the permittee which is 6480 hours:

$$1.35 \text{ tons PM-10/year} \times 2000 \text{ lbs/ton} \times (1/6480 \text{ hr./yr.}) = 0.42 \text{ lbs PM-10/hr.}$$

D. Conclusion

Based on the information presented in part C above, the permittee shall have the following restrictions on emission unit P901 for the purpose of limiting the PTE to below Title V threshold limits:

POLLUTANT	PTE(pre-controlled) (Tons Pollutant/year)	SYNTHETIC MINOR RESTRICTION (Tons Pollutant/year as a rolling, 12 month summation)
Carbon Monoxide	381	87
VOC as Carbon	234	54
Nitrogen Oxides	165.6	78.8
Sulfur Dioxides	107	24.4



State of Ohio Environmental Protection Agency

RE: DRAFT PERMIT TO INSTALL CERTIFIED MAIL
STARK COUNTY

Street Address:

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

Mailing Address:

Lazarus Gov.
Center

Application No: 15-01564

DATE: 8/3/2004

Northstar Asphalt, Inc.
Robert Dervin
P.O. Box 2646
North Canton, OH 44720

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 or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$900** 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.

Very truly yours,

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

Canton LAA

Stark County Area Trans Study

WV

PA

STARK COUNTY

PUBLIC NOTICE

ISSUANCE OF DRAFT PERMIT TO INSTALL 15-01564 FOR AN AIR CONTAMINANT SOURCE FOR NORTHSTAR ASPHALT, INC.

On 8/3/2004 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Northstar Asphalt, Inc.**, located at **7345 Sunset Strip, N.W., North Canton, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 15-01564:

P901 - 300 ton/hr Hot mix asphalt plant.

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.

Dan Aleman, Canton City Health Department, 420 Market Avenue, Canton, OH 44702-1544 [(330)489-3385]



**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 15-01564

Application Number: 15-01564
APS Premise Number: 1576171157
Permit Fee: **To be entered upon final issuance**
Name of Facility: Northstar Asphalt, Inc.
Person to Contact: Robert Dervin
Address: P.O. Box 2646
North Canton, OH 44720

Location of proposed air contaminant source(s) [emissions unit(s)]:
**7345 Sunset Strip, N.W.
North Canton, Ohio**

Description of proposed emissions unit(s):
P901 - 300 ton/hr Hot mix asphalt plant.

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

Northstar Asphalt, Inc.

Facility ID: 1576171157

PTI Application: 15-01564

Issued: To be entered upon final issuance

Part I - GENERAL TERMS AND CONDITIONS

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

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written 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. See B.9 below if no deviations occurred during the quarter.

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- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. 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.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

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

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

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

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6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- 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, reopened, 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, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

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

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally

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applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete

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Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

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

11. Best Available Technology

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

12. Air Pollution Nuisance

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

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

1. Compliance Requirements

The emissions unit(s) identified in this Permit 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 of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted 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. Permit Transfers

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

4. 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

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be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

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

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

6. Public Disclosure

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

7. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate 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.

8. Construction Compliance Certification

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

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if applicable) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

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

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.

C. Permit To Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
Carbon Monoxide	87
Nitrogen Oxides	78.8
Sulfur Dioxide	24.4
PM-10(stack and fugitives)	40.4
PE(stack and fugitives)	39
Volatile Organic Compounds	54

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None

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

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P901 - 300 tons/hr. Hot Mix Asphalt (HMA) Plant (modification)	OAC rule 3745-31-05 (A)(3)

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OAC rule 3745-31-05(C)

OAC rule 3745-17-07(A)(1)
OAC rule 3745-17-11(B)(1)
OAC rule 3745-18-06(E)

40 CFR Part 60, Subpart I

Applicable Emissions Limitations/Control
Measures

Carbon monoxide (CO) emissions from burning #2 or #4 fuel oil or natural gas shall not exceed 87 lbs/hr.

Nitrogen Oxide (NO_x) emissions from burning #2 or #4 fuel oil or natural gas shall not exceed 18 lbs/hr.

Sulfur Dioxide (SO₂) emissions from burning #2 or #4 fuel oil shall not exceed 17.4 lbs/hr.

Sulfur Dioxide (SO₂) emissions from burning #2 or #4 fuel oil while processing slag shall not exceed 24.4 lbs/hr.

Sulfur Dioxide (SO₂) emissions from burning natural gas while processing slag shall not exceed 1.0 lbs/hr.

SO₂ emissions from burning natural gas shall not exceed 0.1 lbs/hr.

Volatile Organic Compound (VOC) emissions from burning #2 or #4 fuel oil or natural gas shall not exceed 54 lbs/hr.

PE/PM¹⁰ from the stack shall not exceed 0.04 gr/dscf

Emissions of fugitive PM¹⁰ shall not exceed 0.42 pounds per hour when burning # 4 fuel oil or natural gas.

Emissions of fugitive particulate emissions shall not exceed 0.86 pounds per hour when burning # 4 fuel oil or natural gas.

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Visible particulate emissions from the stack shall not exceed 20% opacity, as a 3-minute average.

Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see section A.2.a).

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

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.

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.

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.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C) and 40CFR Part 60, Subpart I.

See Sections A.I.2.b through f below.

Particulate emissions (PE) from the stack shall not exceed 8.57 tons per rolling 12-month period.

PM¹⁰ emissions from the stack shall not exceed 8.57 tons per rolling 12-month period.

Fugitive PM shall not exceed 2.67 tons per rolling 12-month period.

Fugitive PM¹⁰ emissions shall not exceed 1.35 tons per rolling 12-month period.

CO emissions shall not exceed 87 tons per rolling 12-month period.

NO_x emissions shall not exceed 78.8 tons per rolling 12-month period.

SO₂ emissions shall not exceed 24.4 tons per rolling 12-month period.

VOC(as carbon) emissions shall not exceed 54 tons per rolling 12-month period.

See Section A.II.2 below.

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

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

2. Additional Terms and Conditions

- 2.a The permittee shall ensure that the baghouse is operated with sufficient air volume to minimize or eliminate visible fugitive emissions from the rotary drum.
- 2.b All on-spec used oil burned in this emissions unit shall meet the following specifications:

Contaminant/Property Allowable Specifications

arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
PCB's	50 ppm, maximum
total halogens	4000 ppm maximum
mercury	1 ppm, maximum
flash point	100°F, minimum
heat content	135,000 Btu/gallon, minimum

* If the permittee is burning used oil with any quantifiable level ≥ 2 ppm < 50 ppm of PCB's, then the permittee is subject to any applicable requirements found under 40 CFR part 279, subparts G and H and 40 CFR 761.20 (e).

** Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under 40 CFR 279.10 (b)(1)(ii) and OAC rule 3745-279-10 (B)(1)(b). Therefore, the permittee may receive and burn used oil exceeding 1,000 ppm of total halogens (but less than 4,000 ppm, maximum) only if the permittee or oil supplier can demonstrate the used oil does not contain any hazardous waste pursuant to OAC rule 3745-279-63.

- 2.c All fuel oil burned in this emission unit shall have a sulfur content equal to or less than 0.5%, by weight. For each shipment of number 4 oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)).

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, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

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- 2.d** All slag materials processed in this emission unit shall have a sulfur content equal to or less than 0.4 %, by weight. The composition of slag shall not exceed the normal aggregate component of the asphalt product. The SO₂ limits contained in this permit represent this potential hourly usage, therefore daily record keeping of the slag component is not required.
- 2.e** The permittee shall conduct burner performance tuning for purposes of minimizing emissions. Burner performance tuning shall contain, at a minimum, the evaluation of and adjustment to manufacturer's specifications of the following:
- i. fuel flow to the burner (for fuel oil and on-spec used oil);
 - ii. differential pressure of the baghouse to ensure proper air flow through the plant;
 - iii. flue gas analysis (of gases present in the drum and or stack) for CO, O₂, CO₂, and NO_x;
 - iv. fuel pressure; and
 - v. for burners that require compressed air for proper operation, correct pressure at the burner.
- 2.f** All aggregate processed in this emissions unit shall have an organic material content less than 0.2 percent, by weight.

II. Operational Restrictions

1. The pressure drop across the fabric filter shall be maintained within 2 to 8 inches of water while the emissions unit is in operation.
2. The maximum annual asphalt production rate for this emissions unit shall not exceed 600,000 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 following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Tons of Hot Mix Asphalt Produced</u>
1	50,000

1-2	100,000
1-3	150,000
1-4	200,000
1-5	250,000
1-6	300,000
1-7	350,000
1-8	400,000
1-9	450,000
1-10	500,000
1-11	550,000
1-12	600,000

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

4. The permittee shall conduct an initial burner tuning within 15 production days after commencement of the production season. The permittee shall conduct another burner tuning within 100 production days following the initial burner tuning; and as required in Section A.II.5, with the use of any fuel other than the fuel in use during the most recent burner tuning. For purposes of this permit, the production season is defined as the time period between the date the first ton of asphalt is produced and the date that the last ton of asphalt is produced during the same calendar year.
5. The permittee shall conduct additional burner tuning, within 15 production days from the date of burning any fuel that is different than the fuel(s) burned during the most recent burner tuning, as required above (Section A.II.4).
6. 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.
7. The permittee shall only burn natural gas or on-spec number 2 or on-spec number 4 fuel oils in this emissions unit.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the fabric filter while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fabric filter on daily basis.
2. The permittee shall maintain monthly records of the following information:

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- a. the asphalt production for each month;
 - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the asphalt production; or

during the first 12 calendar months of operation following the issuance of this permit, the cumulative asphalt production for each calendar month, since startup;
 - c. the maximum percentage RAP used for any mix; and
 - d. the tons of aggregate, natural sand, and slag used for each ton of asphalt produced.
3. For each shipment of number 4 fuel oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content, as required in Section A.I.2.c.
 4. Each calendar quarter the permittee shall collect a representative composite sample of slag from its storage pile, for analysis of sulfur content; or shall obtain an acceptable sulfur content analysis from a representative sample of each shipment of slag, as received from the supplier. A sufficient number of individual samples shall be collected so that each composite sample is representative of the average sulfur content of the slag being processed in the emissions unit that day. Sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. The permittee shall analyze the composite sample of slag for sulfur and maintain records which identify:
 - a. the date and time period for processing of the slag;
 - b. the company's hot mix asphalt (HMA) identification number;
 - c. the tons of HMA processed using slag;
 - d. the maximum percent, by weight, of slag in any ton of HMA produced;
 - e. the name and address of the slag supplier;
 - f. the supplier's USEPA identification number; and
 - g. the concentration of sulfur in the slag, in pounds of sulfur per ton slag.

The method used to analyze slag for sulfur shall be approved by the Canton LAA prior to conducting the analysis.

5. The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the enclosures for the hot aggregate elevator, vibrating screens, and/or weigh hopper servicing this emissions unit. If visible particulate emissions are observed, the permittee shall note the following in the operation log:

- a. the color of the visible particulate emissions;
- b. the cause of the visible particulate emissions;
- c. the total duration of the visible particulate emission incident; and
- d. corrective actions taken to eliminate the visible particulate emissions.

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

6. The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when the weather conditions allow, for any abnormal visible particulate emissions from the stack, aggregate storage bins, and/or cold aggregate elevator/conveyor serving this emissions unit. If abnormal visible emissions are observed, the permittee shall note the following in the operation log:
 - a. the color of the abnormal visible particulate emissions;
 - b. the cause of the abnormal visible particulate emissions;
 - d. the total duration of any abnormal visible particulate emissions incident; and
 - e. any corrective actions taken to eliminate the abnormal visible particulate emissions.

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

7. The permittee shall properly operate and maintain portable monitoring devices to document the concentration of NO_x, CO, O₂, and CO₂ present in the flue gases generated within the drum and/or stack during the burner performance tuning. 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.
8. While performing the required burner tuning, the permittee shall record the results of the evaluation of the operating parameters listed above in A.I.2.e and the information required in the form below:

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**BURNER TUNING REPORTING FORM FOR:
ASPHALTIC CONCRETE PLANTS**

1. Source Number: _____ 2. Reporting Period: (calendar year): _____

3. Company Information:

Legal Name:	Other company name (if different than legal name):
Mailing Address:	Site Address: (if different than mailing address):
City, State, Zip Code:	City, County, Zip Code:

4. Site Contact Person:

Name:	Telephone Number:
Title:	Fax Number:

5. Type of plant (ie: batch, drum mix, etc.): _____

6. Company performing tuning: _____

7. Company performing emission monitoring: _____

8. Calibration date for NO_x, CO₂, CO and O₂ analyzers used to perform emission monitoring: _____

9. Date Turning Completed: _____

10. Fuel type employed during burner tuning: _____

11. Tuning Results¹:

Parameter	Results	
	Pre Tuning	Post Tuning ⁴
Exhaust gas flow rate (dscfm)		
Carbon Monoxide (CO) concentrations (ppm) ^{2, 3}		
NO _x concentrations (ppm) ^{2, 5}		
Oxygen concentration (%) ²		
Stack Gas Temperature		
Asphalt Production (tons/hr)		
Asphalt Mix Temperature		
RAP content (as % of mix production)		
Fuel usage (gal/ton, therms/ton, or cf/ton)		

¹ During any year in which burner tuning is required by Condition 3.1 of your General Permit, the tuning must be completed and a report submitted to the Department by July 15th.

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² Specify whether on a dry or wet basis.

³ For Drum mix plants the recommended maximum target concentration for CO is less than or equal to 180 ppm (dry). For Batch plants the recommended maximum target concentration for CO is less than or equal to 155 ppm (dry).

⁴ If the plant did not require adjusting, please record N/A in the post tuning column.

⁵ For Drum mix plants the recommended maximum target concentration for NOx is less than or equal to XXXX ppm (dry). For Batch plants the recommended maximum target concentration for NOx is less than or equal to XXXX ppm (dry).

12. Certifying Signature

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

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Please submit this form to the Permit Coordinator at the Ohio Environmental Protection Agency regional office shown on the cover page of the permit assignment form. The Permit Coordinator addresses are also listed in the Administrative Requirements section of the General Air Contaminant Discharge Permit.

Detailed list of adjustments and/or repairs made to bring the operating parameters into conformance with the manufacturers specifications.

9. The permit to install for this emissions unit, P901, was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Heptane

TLV (ug/m3): 1,640

Maximum Hourly Emission Rate (lbs/hr): 4.6

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): less than 39,048

MAGLC (ug/m3): 39,048

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously

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modeled;

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
10. Each calendar quarter the permittee shall collect a representative composite sample from the storage pile of aggregate processed in this emissions unit, for analysis of the organic content; or shall obtain an acceptable organic content analysis from a representative sample of each shipment of aggregate, as received from the supplier. A sufficient number of individual samples shall be collected so that each composite sample is representative of the average VOC content of the aggregate being stored. Sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. The permittee shall analyze the composite sample of slag for Organic Matter and maintain records which identify:
- a. the date and time period for processing of the aggregate sampled;
 - b. the company's HMA mix identification number;

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- c. the tons of HMA processed using the aggregate; and
- d. the concentration of organic matter in the aggregate, in pounds of organic matter per ton of material.

The analytical method used shall be approved by the Canton LAA prior to conducting the Organic matter analysis.

11. The permittee may not receive or burn any on-spec used oil which does not meet the specifications listed in Section A.I.2.b of this permit, without first obtaining a permit to install that authorizes the burning of such used oil. The burning of off-specification used oil is subject to OAC rule 3745-279-60 through 67.
12. The permittee shall receive a chemical analysis with each shipment of on-spec used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's U.S.EPA identification number, and the following information:
 - a. date of shipment or delivery;
 - b. quantity of on-spec used oil received;
 - c. the Btu value of the on-spec used oil;
 - d. the flash point of the on-spec used oil;
 - e. the arsenic content, in ppm;
 - f. the cadmium content, in ppm;
 - g. the chromium content, in ppm;
 - h. the lead content, in ppm;
 - i. the PCB content, in ppm;
 - j. the total halogen content, in ppm; and
 - k. the mercury content, in ppm.

Each analysis shall be kept in a readily accessible location for at least 5 years and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon verbal or written request. The Director or any authorized representative of the Director may require or may conduct periodic, detailed chemical analyses through an independent laboratory of any used oil shipment received by this facility, of any used oil stored at this facility, or of any used oil sampled at the dryer.

IV. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in Section A.II.1. These reports are due by the date described in Part I-General Terms and Condition of this permit.
2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling 12-month asphalt production limitations. These reports are due by the date

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described in Part I- General Terms and Conditions of this permit.

3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the RAP limitation-specified above. These reports are due by the date described in Part I- General Terms and Condition of this permit.
4. The permittee shall submit annual reports which specify the total PE, SO₂, NO_x, VOC and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by April 15 of each year, to the Canton local air agency.
5. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the sulfur and/or organic matter content limits specified in Sections A.I.2.d and f. These reports are due by the date described in Part I- General Terms and Condition of this permit.
6. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following occurrences:
 - a. each day during which any abnormal visible particulate emissions were observed from the stack, aggregate storage bins, and/or cold aggregate elevator/conveyors serving this emissions unit;
 - b. each day during which any visible fugitive particulate emissions were observed from the enclosures for the hot aggregate elevator, vibrating screens, and/or weigh hopper; and
 - c. describe any corrective actions taken to eliminate the abnormal visible particulate emissions.

These reports are due by the date described in Part I - General Terms and Conditions of this permit.
7. The permittee shall submit burner performance tuning reports to the Canton local air agency, that summarize the results of each burner performance tuning. These reports are due within 30 days of the date that the burner performance tuning was performed.
8. The permittee shall notify the Canton LAA if any fuel other than natural gas or on-spec number 2 or on-spec number 4 fuel oil is used in this emissions unit; or if any on-spec used oil exceeds the on-spec used oil specifications found in OAC rule 3745-279-11. If the permittee is burning on-spec used oil which exceeds the specifications found in OAC rule 3745-279-11, the permittee is subject to that rule and must comply with all provisions of that rule. The required notification shall be submitted within 30 days of the date in which the exceedance occurred.
9. The following source is subject to the applicable provision of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR part 60.

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<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
P004	300 tph asphalt batch plant	Subpart I

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

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

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

Reports are to be sent to:

Canton City Health Dept., DAPC
420 Market Ave., North
Canton, Ohio 44702 - 1544

V. Testing Requirements

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

1. Emission Limitations:

PE shall not exceed 0.04 gr/dscf;

VOC emissions when burning number 4 fuel oil shall not exceed 54 lbs/hr;

CO emissions from burning number 4 fuel oil shall not exceed 87 lbs/hr;

NO_x emissions from burning number 4 fuel oil shall not exceed 18 lbs/hr;

SO₂ emissions from burning number 4 fuel oil and processing slag based aggregate shall not exceed 24.4 lbs SO₂/hr; and

Visible emissions at the stack shall not exceed 20% opacity as a 3-minute average

Applicable Compliance Method:

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

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emissions unit.

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- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE, VOC, CO, NO_x and SO₂.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

For PE, Methods 1 through 5 of 40 CFR Part 60, Appendix A;

For NO_x, Methods 1 through 4 and 7 or 7E of 40 CFR Part 60, Appendix A;

For SO₂, Methods 1 through 4 and 6 or 6C of 40 CFR Part 60, Appendix A;

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

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

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.

- d. The test(s) shall be conducted while this emissions unit is operating at or near its maximum capacity while burning # 4 fuel oil for PE, VOC, CO, NO_x, and SO₂; while employing RAP to verify VOC emissions, and slag to verify SO₂ emissions, unless otherwise specified or approved by the Canton local air agency (Canton LAA).

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton LAA. 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 Canton LAA's refusal to accept the results of the emission test(s).

Personnel from the Canton LAA 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 Canton LAA 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 Canton LAA.

2. Emissions Limitation:

PE emissions shall not exceed 8.57 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be determined by multiplying the recorded emission rate from the most recent emissions testing, in pounds of PE per ton of asphalt

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produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period, (as derived from the records required in Section A.III.2) and dividing by 2000 pounds.

3. Emissions Limitation:

PM¹⁰ emissions from the stack shall not exceed 8.57 tons per rolling 12-month period.

Applicable Compliance Method:

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

4. Emission Limitations:

Emissions of fugitive PM shall not exceed 0.86 pounds per hour when burning on-spec oil, number 2 and 4 fuel oils or natural gas.

Applicable Compliance Method:

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

5. Emissions Limitation:

Fugitive PM emissions shall not exceed 2.67 tons per rolling 12-month period.

Applicable Compliance Method:

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

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

a. Fugitives emissions from the cold end are calculated as follows

$$[(600,000 \text{ tons of asphalt/year} \times 0.0051 \text{ lb PM/ton of asphalt}) + (600,000 \times 253,800 \text{ tons of aggregate/year} \times 0.0069 \text{ lb PM/ton of aggregate}) + (600,000 \times 253,800 \text{ tons of sand/yr} \times 0.0021 \text{ lb PM/ton of sand})] \times [1 \text{ ton}/2000 \text{ pounds}] = 2.58 \text{ tons of PM/yr.}$$

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- b. Fugitives emissions from the hot end are calculated as follows:

$(600,000 \text{ tons of asphalt produced} \times 0.0003 \text{ lb of PM/ton of asphalt produced}) \times (1 \text{ ton}/2000 \text{ pounds}) = 0.09 \text{ tons of PM/yr.}$

- c. Total fugitive emissions are therefore 2.76 tons/yr.

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

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6. Emission Limitations:

Emissions of fugitive PM¹⁰ shall not exceed 0.42 pounds per hour when burning on-spec oil, number 2 and 4 fuel oils or natural gas.

Applicable Compliance Method:

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

7. Emissions Limitation:

Fugitive PM¹⁰ emissions shall not exceed 1.35 tons per rolling 12-month period.

Applicable Compliance Method:

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

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

a. Fugitives emissions from the cold end are calculated as follows

$$[(600,000 \text{ tons of asphalt/year} \times 0.0024 \text{ lb PM}^{10}/\text{ton of asphalt}) + (253,800 \text{ tons of aggregate/year} \times 0.0033 \text{ lb PM}^{10}/\text{ton of aggregate}) + (253,800 \text{ tons of sand/year} \times 0.00099 \text{ lb PM}^{10}/\text{ton of sand})] \times [1 \text{ ton}/2000 \text{ pounds}] = 1.26 \text{ tons of PM}^{10}$$

b. Fugitives emissions from the hot end are calculated as follows

$$(600,000 \text{ tons of asphalt produced} \times 0.0003 \text{ lb of PM}^{10}/\text{ton of asphalt produced}) \times (1 \text{ ton}/2000 \text{ pounds}) = 0.09 \text{ tons of PM}^{10}$$

c. Total fugitive emissions are therefore 1.35 tons PM¹⁰.

The emission factors in the above equations are derived from AP-42, Fifth edition, Chapter 11, Tables 11.12-2(10/01) and 11.1.2.5(12/00)

8. Emission Limitation:

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1.0 lbs SO₂/hr while using natural gas as a fuel and processing slag based aggregate;

0.1 lbs SO₂/hr while using natural gas as a fuel and no slag based production;

17.4 lbs SO₂/hr while using fuel oil and no slag based production; and

24.4 lbs SO₂/hr while using fuel oil and processing slag based aggregate.

SO₂ emissions shall not exceed 24.4 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the hourly SO₂ limit shall be demonstrated through the testing required in Section V.1, the SO₂ monitoring requirements for slag and fuel oils, and compliance with the terms of this permit. The hourly emission rate from fuel oil was established using an emission factor from U.S. EPA's AP-42, Chapter 11, Table 11.1-7 of 0.058 lbs SO₂/ton HMA from waste oil; the same factor was adjusted for the estimated additional emissions from slag. Therefore Compliance with the annual emissions limitation shall be determined by multiplying these factors by the actual rolling 12- month summation of asphalt produced, in tons per rolling 12-month period, (as derived from the records required in Section A.III.2) and dividing by 2000 pounds.

9. Emission Limitation:

CO emissions shall not exceed 87 lbs/hr and 87 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the hourly CO limit shall be demonstrated through the testing required in Section V.1 and compliance with the terms of this permit. Compliance with the annual emissions limitation shall be determined by multiplying the recorded 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 in Section A.III.2) and dividing by 2000 pounds. The hourly emission limit was established using an emission factor of 0.29 lbs CO/ton HMA documented from a previous stack test for this emissions unit.

10. Emission Limitation:

NO_x emissions shall not exceed 18 lbs/hr and 78.8 tons per rolling 12-month period.

Applicable Compliance Method:

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Compliance with the hourly NOx limit shall be demonstrated through the testing required in Section V.1 and compliance with the terms of this permit. Compliance with the annual emissions limitation shall be determined by multiplying the recorded emission rate from the most recent emissions testing, in pounds of NOx per ton of asphalt produced, by the actual rolling 12 month summation

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of asphalt produced, in tons per rolling 12-month period (as derived from the records required in section III above), and dividing by 2000 pounds. The hourly emission limit was established using an emission factor of 0.06 lbs NOx/ton HMA documented from a previous stack test for this emissions unit.

11. Emission Limitation:

VOC (as carbon) emissions shall not exceed 54 lbs/hr and 54 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the hourly VOC limit shall be demonstrated through the testing required in Section V.1 and compliance with the terms of this permit. Compliance with the annual emissions limitation shall be determined by multiplying the recorded 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 in section III above) and dividing by 2000 pounds. The hourly emission limit was established using an emission factor of 0.18 lbs VOC/ton HMA documented from a previous stack test for this emissions unit.

12. Emission Limitation:

Visible particulate emissions from the stack shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

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

13. Emission Limitation:

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

Applicable Compliance Method:

Compliance with this limitation on visible emissions of fugitive dust shall be demonstrated by the monitoring and record keeping in Section A.III.5. If required, compliance shall be determined in accordance with Test Method 22, as found in 40 CFR, Part 60 Appendix A.

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14. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated by the monitoring and record keeping in Section A.III.6. If required, 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.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P901 - 300 tons/hr. Hot Mix Asphalt Plant(modification)	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None