

Facility ID: 1409000018 Issuance type: Final State Permit To Operate

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In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1409000018 Emissions Unit ID: P902 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

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

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
P902 - Drum mix asphalt plant w/fabric filter including oil-fired dryer, hot aggregate elevator, and silos	OAC rule 3745-31-05(A)(3) (PTI 14-05378)	Stack Emissions:  Particulate emissions (PE) shall not exceed 10.35 pounds per hour;  Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 2.9 pounds per hour;  Carbon monoxide (CO) emissions shall not exceed 141.4 pounds per hour;  Nitrogen oxide (NOx) emission shall not exceed 17.6 pounds per hour;  Sulfur dioxide (SO2) emissions shall not exceed 18.6 pounds per hour;  Organic compound (OC) emissions shall not exceed 32.6 pounds per hour; and  Lead emissions shall not exceed 0.3 pound per hour.  Fugitive Emissions, including loadout, elevators, storage bins, and silo filling:  PE shall not exceed 18.4 pounds per hour; and  PM10 shall not exceed 16.6 pounds per hour.  See terms and conditions A.2.d, A.2.e, and A.2.f.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B), OAC rule 3745-17-08(B), 40 CFR Part 60 Subpart I, OAC rule 3745-31-05(C), and OAC rule 3745-21-08 (B).  Stack Emissions, when burning No. 2 fuel oil or on-spec used oil:  PE shall not exceed 3.4 tons per rolling 12-month period;  PM10 emissions shall not exceed 0.95 tons per rolling 12-month period;
	OAC rule 3745-31-05(C) Synthetic Minor to avoid PSD and the Emissions Offset Policy	

NOx emissions shall not exceed 11 tons per rolling 12-month period;

SO2 emissions shall not exceed 11.6 tons per rolling 12-month period;

CO emissions shall not exceed 88.4 tons per rolling 12-month period;

OC emissions shall not exceed 20.4 tons per rolling 12-month period; and

Lead emissions shall not exceed 0.25 tons per rolling 12-month period.

Fugitive Emissions, including loadout, elevators, storage bins, and silo filling:

PE shall not exceed 11.5 tons per rolling 12-month period;

PM10 emissions shall not exceed 10.4 tons per rolling 12-month period;

CO emissions shall not exceed 0.5 tons per rolling 12-month period; and

OC emissions shall not exceed 3.3 tons per rolling 12-month period.

See term B.3.

Particulate emissions (PE) shall not exceed 0.04 grain per dry standard cubic foot of exhaust gases.

The opacity limitation specified by this rule is less stringent than the opacity limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

Visible emissions of fugitive dust shall not exceed 20 percent opacity, as a 3-minute average.

See terms and conditions A.2.a, A.2.b, and A.2.c.

The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

See term and condition A.2.g.

40 CFR Part 60 Subpart I

OAC rule 3745-17-07(A)

OAC rule 3745-17-07(B)

OAC rule 3745-17-08(B)

OAC rule 3745-17-11(B)

OAC rule 3745-18-06(E)

OAC rule 3745-21-08(B)

**2. Additional Terms and Conditions**

- (a) The permittee shall employ reasonable available control measures including use of adequate enclosures and sufficient draft to minimize or eliminate visible emissions of fugitive dust from the hot aggregate elevator, storage silos, and weigh hopper. 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 elevator loading area. The aggregate loaded into the storage bins shall have a moisture content sufficient to minimize or eliminate visible emissions of fugitive dust from the elevator and the transfer point to the dryer. Visible particulate emissions from any stack associated with emissions unit P902 shall not exceed 10 percent opacity, as a 6-minute average. All recycled, 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 60 ppm, maximum
- PCBs 10 ppm, maximum\*
- total halogens 4000 ppm, maximum
- mercury 1 ppm, maximum
- flash point 100 degreesF, minimum
- heat content 135,000 Btu/gallon, minimum
- sulfur content 0.50 %

\* If the permittee is burning used oil with any quantifiable level (2ppm) of PCBs, then the permittee is subject to the notification requirements of 40 CFR 279.62.

Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph (B)(1) of rule 3745-279-10 of the Administrative Code. The permittee may receive and burn used oil exceeding 1,000 ppm total halogens (but less than 4,000 ppm maximum) only if the permittee has demonstrated that the used oil does not contain any hazardous waste pursuant to OAC rule 3745-279-10(B).

The burning of used oil not meeting the above limitations is prohibited in this emissions unit. The management and burning of used oil is subject to the Standards for the Management of Used Oil, OAC Chapter 3745-279, and the permittee shall document and assure that used oils burned in this emissions unit meet all of the applicable requirements of this Chapter.

The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC paragraph 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC paragraph 3745-31-05(A)(3) in this permit-to-install.

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

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

Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a settling chamber and fabric filter to control the particulate emissions from the dryer, an annual asphalt production limit, maintenance of the aggregate in a moist condition, visible emissions limitations, and compliance with 40 CFR Part 60, Subpart I.

The hourly emission limitations outlined in Section A.1 are based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.

**B. Operational Restrictions**

1. The pressure drop across the fabric filter shall be maintained within a range of 2 inches of water to 8 inches of water while the emissions unit is in operation.
2. The maximum hourly asphaltic concrete production rate from this plant shall not exceed 320 tons per hour.
3. The maximum annual asphaltic concrete production rate for this emissions unit shall not exceed 400,000 tons per year based upon a rolling, 12-month summation of the production rates.
4. The permittee may not receive or burn any used oil which does not meet the specifications listed in this permit without first obtaining a permit to install that authorizes the burning of such used oil.
5. The permitted may not receive or burn any #2 fuel oil and/or used oil which has a sulfur content greater than 0.50 percent.
6. The use of recycled asphalt product (RAP) shall be limited to 50 percent for surface, base, and intermediate mixes.

**C. 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 a daily basis.
2. The permittee shall receive a chemical analysis with each shipment of used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's USEPA identification number, and the following information:
  - a. date of shipment or delivery,
  - b. quantity of used oil received (gallons),
  - c. the Btu value of the used oil (Btu/gallon),
  - d. the flash point of the used oil (oF),
  - e. the arsenic content (ppm),
  - f. the cadmium content (ppm),
  - g. the chromium content (ppm),
  - h. the lead content (ppm),
  - i. the PCB content (ppm),
  - j. the total halogen content (ppm),
  - k. the mercury content (ppm), and
  - l. the sulfur content (%).

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.

3. The permittee shall maintain monthly records of the following information:
  - a. The asphaltic concrete production rate, in tons, for each month, and
  - b. The updated rolling, 12-month summation of the asphaltic concrete production rates, in tons, calculated by adding the current month's asphalt production to the asphalt production for the preceding eleven calendar months.
4. For each shipment of #2 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.
5. The permittee shall maintain daily records of the amount of RAP, in percent by weight, used in each surface, base, and intermediate mix.

**D. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the fabric filter did not comply with the allowable range specified in Section B.1.
2. The permittee shall notify the USEPA and the Ohio EPA within 30 days if any of the used oil exceeds the used oil specifications found in OAC rule 3745-279-11 or term A.2.e. If the permittee is burning 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.
3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation in Section B.3.
4. The permittee shall submit annual reports which specify the total PE, PM10, SO<sub>2</sub>, NO<sub>x</sub>, OC, and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 30 of each year.
5. The permittee shall submit deviation (excursion) reports that identify all exceedances of the sulfur content limits in Section B.5.
6. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

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

Stack Emissions:

Particulate emissions (PE) shall not exceed 10.35 pounds per hour;  
PE shall not exceed 0.04 grain per dry standard cubic foot of exhaust gases;  
Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 2.9 pounds per hour;  
Carbon monoxide (CO) emissions shall not exceed 141.4 pounds per hour;  
Nitrogen oxide (NO<sub>x</sub>) emission shall not exceed 17.6 pounds per hour;  
Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 18.6 pounds per hour;  
Organic compound (OC) emissions shall not exceed 32.6 pounds per hour; and  
Lead emissions shall not exceed 0.3 pound per hour.

Applicable Compliance Method:

Compliance with the PE, PM10, CO, NO<sub>x</sub>, and OC emission limitations listed above shall be determined by emissions testing as specified in Section E.2 of these terms and conditions.

Compliance with the SO<sub>2</sub> and lead emissions limitations shall be based upon emission factors contained in US EPA AP-42 Section 11.1 for Hot Mix Asphalt, Drum Mix Plants, Tables 11.1-7 and 11.1-12, and the maximum operating capacity of the drum mix plant at 320 tons per hour.

Emission Limitations:

Fugitive Emissions (loadout, elevators, storage bins, and silo filling):

Particulate emissions (PE) shall not exceed 18.4 pounds per hour; and  
Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 16.6 pounds per hour.

Applicable Compliance Method:

The fugitive emission limitations above are based upon the emission unit's potential to emit (PTE). Compliance with the fugitive emission limitations for loadout, elevators, storage bins, and silo filling shall be demonstrated using emission factors and control efficiencies found the OhioEPA Reasonably Available Control Measures (RACM) Manual for Asphaltic Concrete Plants, Section 2.21 and Table 2.21-1, and the maximum plant production rate of 320 tons per hour.

Emission Limitations:

Stack Emissions:

PE shall not exceed 3.4 tons per rolling 12-month period;  
PM10 emissions shall not exceed 0.95 tons per rolling 12-month period;  
NO<sub>x</sub> emissions shall not exceed 11 tons per rolling 12-month period;  
SO<sub>2</sub> emissions shall not exceed 11.6 tons per rolling 12-month period;  
CO emissions shall not exceed 88.4 tons per rolling 12-month period;  
OC emissions shall not exceed 20.4 tons per rolling 12-month period; and  
Lead emissions shall not exceed 0.25 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the PE, PM10, CO, OC, and NOx emission limitations shall be determined by multiplying the observed emissions rate from the most recent emissions testing, in pounds of pollutant 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.

Compliance with the SO2 and lead emissions limitations shall be determined by multiplying the applicable USEPA AP-42 Section 11.1 emissions factor, in pounds of pollutant 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.  
Emission Limitations:

Fugitive Emissions, including loadout, elevators, storage bins, and silo filling:  
PE shall not exceed 11.5 tons per rolling 12-month period;  
PM10 emissions shall not exceed 10.4 tons per rolling 12-month period;  
CO emissions shall not exceed 0.5 tons per rolling 12-month period; and  
OC emissions shall not exceed 3.3 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the annual fugitive emission limitations for loadout, elevators, storage bins, and silo filling shall be determined using emission factors and control efficiencies found the OhioEPA Reasonably Available Control Measures (RACM) Manual for Asphaltic Concrete Plants, Section 2.21 and Table 2.21-1 and in US EPA AP-42 Section 11.1, in pounds of pollutant 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.  
Emissions Limitation:

Visible particulate emissions from any stack associated with emissions unit P902 shall not exceed 10 percent opacity, as a 6-minute average.

Applicable Compliance Method:

Upon request by the appropriate Ohio EPA District Office or local air agency, compliance shall be determined using Method 9 as set forth in 40 CFR Part 60 Appendix A, as such appendix existed on July 1, 2002 and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.  
Emissions Limitation:

Visible emissions of fugitive dust shall not exceed 20 percent opacity, as a 3-minute average.

Applicable Compliance Method:

Upon request by the appropriate Ohio EPA District Office or local air agency, 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, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

2. 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 six months after issuance of this permit.
  - ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE, OC, CO, NOx.
  - iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) for:
    - PE, Methods 1-5 of 40 CFR Part 60, Appendix A.
    - NOx, Methods 1-4 and 7 or 7E of 40 CFR Part 60, Appendix A.
    - CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A
    - OC, Methods 1-4 and 25 and/or 18 of 40 CFR Part 60, Appendix A

Alternative U.S. EPA approved test methods may be used with prior approval from the Hamilton County Department of Environmental Services.

  - iv. The test(s) shall be conducted while this emissions unit is operating at or near its maximum capacity and burning number 2 fuel oil or on-spec used oil and employing RAP to verify OC emissions, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

Personnel from the Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental

Services 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 Hamilton County Department of Environmental Services.

**F. Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: Sections A, B, C, D, and E.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition for the materials, or use of new materials that would cause the emission of any pollutant that has a listed TLV to increase to above 1.0 tons per year may require the permittee to apply for and obtain a new permit to install.