

Facility ID: 0819010076 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

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: 0819010076 Emissions Unit ID: P901 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>
P901 - 400 tons/hr, Drum Mix Hot Mix Asphalt Plant; rotary dryer controlled with baghouse  (Non-Appendix A area)	OAC rule 3745-31-05(A)(3) PTI 08-04565	The requirements of this rule also include compliance with the requirements of NSPS 40 CFR Part 60, Subpart I, and OAC 3745-35-07(B).  Stack Emissions  The particulate emissions (PE) from the stack for this emissions unit shall not exceed 3.5 tons/yr.  The fugitive particulate emissions from sand, aggregate and weigh hopper loading of materials (cold end) shall not exceed 2.02 tons/yr.  The carbon monoxide (CO) emissions from this emissions unit when burning off-spec used oil, #2 fuel oil and natural gas shall not exceed 52 lbs/hr.  The nitrogen oxide (NOx) emissions from this emissions unit when burning natural gas shall not exceed 10.4 lbs/hr and 6.5 tons/yr.  The nitrogen oxide (NOx) emissions from this emissions unit when burning #2 oil or off-spec used oil shall not exceed 22 lbs/hr and 13.75 tons/yr.  The sulfur dioxide (SO2) emissions from this emissions unit when burning natural gas shall not exceed 1.36 and 0.85 tons/yr.  The sulfur dioxide (SO2) emissions from this emissions unit when burning #2 oil shall not exceed 4.4 lbs/hr and 2.75 tons/yr.  The sulfur dioxide (SO2) emissions from this emissions unit when burning off-spec used oil shall not exceed 23.2 lbs/hr.  The volatile organic compound (VOC) emissions from this emissions unit when burning natural gas, #2 oil and off-spec used oil shall not exceed 12.8 lbs/hr and 8.0 tons/yr.  The CO emissions from this emissions unit when burning natural gas, #2 oil and off-spec used oil shall not exceed 32.5 tons/yr.
	OAC rule 3745-35-07(B) (Synthetic minor to avoid Title V)	

		The SO2 emissions from this emissions unit when burning off-spec used oil shall not exceed 14.5 tons/yr.
		The ton/yr limitations are based upon a rolling 12-month summation.
	NSPS 40 CFR Part 60, Subpart I	Particulate emissions from the stack shall not exceed 0.04 grain per dry standard cubic foot of exhaust gases.
		Visible particulate emissions shall not exceed 20 percent opacity, as a 6-minute average, from the stack, except as provided by 40 CFR Part 60, Subpart I.
		The emission limitations specified in these rules are less stringent than the emission limitations specified in 40 CFR Part 60, Subpart I.
	OAC rule 3745-17-07(A) and 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation specified in OAC rule 3745-18-06(H) (i.e. 40 CFR, Part 60 Subpart I).
	OAC rule 3745-18-06(E)(2)	
aggregate storage bins, cold aggregate elevator, load-out and silo filling operations	OAC rule 3745-31-05(A)(3) PTI 08-04565	The fugitive particulate emissions from silo filling and plant load out (hot end) shall not exceed 0.28 ton/yr.
		The fugitive VOC emissions from silo filling and plant load out (hot end) shall not exceed 4.0 tons/yr.
		Visible particulate emissions from any fugitive source shall not exceed 20 percent 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 elevator loading area.
		The aggregate loaded into the storage bins shall have a moisture content sufficient to minimize or eliminate the visible emissions of fugitive dust from the elevator and the transfer point to the dryer.

**2. Additional Terms and Conditions**

- (a) The 52 lbs/hr of CO, 22 lbs/hr of NOx, 23.2 lb/hr of SO2 and 12.8 lbs/hr of VOC emissions limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.  
This emissions unit has been approved for the use of recycle asphalt products.  
The particulate emission limitation specified above includes particulate matter (PM10) emissions that are less than 10 microns in diameter.  
All used oil burned in this emissions unit shall meet the requirements for burning off-specification used oil for energy recovery, contained in OAC rules 3745-279-60 through 3745-279-67 and shall contain less than the quantifiable levels of PCBs as defined in 40 CFR 761.3.  
All used oil burned in this emissions unit shall meet the following limitations for PCBs, mercury, total halogens, and heat content:  
  
Contaminant/Property Off-Specification Used Oil Fuel Limitations  
  
PCB's less than 2 ppm  
total halogens 4,000 ppm maximum\*  
mercury 1 ppm, maximum  
heat content 135,000 Btu/gallon, minimum  
  
\* 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 3745-279-63.  
  
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.

**B. Operational Restrictions**

- 1. The maximum annual production rate for this emissions unit shall not exceed 500,000 tons, based upon a rolling 12-month summation. Since this is an existing source it has existing records and therefore does not need to be limited to first year monthly amounts of production.
- 2. The pressure drop across the baghouse shall be maintained within the range of 3 to 6 inches of water when the

emissions unit is in operation.

3. 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.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain monthly records of the following information:
  - a. the total quantity of asphalt products produced each month; and
  - b. the rolling, 12-month summation of the monthly production rates.
  - c. the maximum percentage RAP used for any mix.
2. The permittee shall properly, operate, and maintain equipment to monitor the pressure drop across the baghouse when the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
3. The permittee shall receive and maintain the chemical analyses from the supplier/marketer for each shipment of used oil burned in this emissions unit, which shall contain the following information:
  - a. the date the used oil was received at the facility;
  - b. the name, address, and U.S. EPA identification number of the generator, transporter, processor/re-finer, supplier, and/or marketer;
  - c. the results of the analyses demonstrating that the used oil meets the heating value total halogens, mercury, and PCB limitations contained in this permit; and
  - d. the analysis demonstrating that the used oil is below 1,000 ppm, or below 4,000 ppm with the demonstration for the rebuttal of the presumption that the oil is hazardous waste or has been mixed with hazardous waste, as described in OAC rule 3745-279-63 (B).

Each analysis shall be kept in a readily accessible location for a period of not less than 5 years following the receipt of each shipment of used oil; and shall be made available to the Ohio EPA Division of Hazardous Waste Management and/or the Division of Air Pollution Control (the appropriate Ohio EPA District Office or local air agency) upon verbal or written request. Any authorized representative of the Ohio EPA may sample or require sampling of any used oil shipments received, stored, or burned by/at this facility for periodic detailed chemical analyses, through an independent laboratory.

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the hot aggregate elevator, vibrating screens, weigh hopper, aggregate storage bins and cold aggregate elevator serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the abnormal visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

5. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate District Office or local air agency) which identify all exceedances of the rolling, 12-month production rate limitation.
2. The permittee shall submit pressure drop quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The permittee shall submit quarterly deviation (excursion) reports that (a) identify all days during which any visible particulate emissions were observed in excess of the allowable opacity limit specified above from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed in excess of the allowable opacity limit specified above from the hot aggregate elevator, vibrating screens, weigh hopper, aggregate storage bins and cold aggregate elevator serving this emissions unit, and (c) describe any corrective actions taken to minimize the abnormal visible particulate and/or visible fugitive particulate emissions.

4. The permittee shall submit quarterly deviation (excursion) reports to the Director (the appropriate District Office or local air agency) which identify all exceedances of the RAP limitation specified above.
5. These quarterly deviation (excursion) reports shall be submitted to the Ohio EPA District Office or local air agency by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter. If no deviations occurred during the calendar quarter, the permittee shall submit a report which states that no deviations occurred during the calendar quarter.
6. The permittee shall submit annual reports of the production rate and the total PM, OC, NOx, SO<sub>2</sub> and CO emissions for this emissions units. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data from this emissions unit in the annual Fee Emission Report.
7. The permittee shall notify the U.S. EPA and both the Ohio EPA Division of Hazardous Waste Management and the Division of Air Pollution Control (the appropriate Ohio EPA District Office or local air agency), in writing and within 30 days, of burning any used oil exceeding the limitations found in OAC rule 3745-279-11 prior to obtaining a U.S. EPA identification number; and/or any incident or occurrence of non-compliance with any applicable requirement of OAC Chapter 3745-279 and/or 40 CFR part 761; and shall also notify the Ohio EPA Division of Air Pollution Control, within the same amount of time, if any oil is/was burned which exceeds the PCBs, total halogens, and/or mercury limitations and/or is documented as having a heating value of less than 135,000 Btu/gallon.
8. The permittee shall notify both the Ohio EPA Division of Hazardous Waste Management and the Division of Air Pollution Control (the appropriate Ohio EPA District Office or local air agency), in writing and within 30 days, of any occurrence of non-compliance with the requirements set forth in OAC rules 3745-279-60 through 67, which includes the storage and tracking of the used oil.

**E. Testing Requirements**

1. Compliance with the emissions limitation(s) in section A.1 of these terms and conditions shall be determined in accordance with the following method(s):  
Emission Limitation-  
PE emissions shall not exceed 0.04 gr/dscf;  
CO emissions when burning off-spec used oil or #2 fuel oil or natural gas shall not exceed 52 lbs/hr;  
NOx emissions when burning off-spec used oil or #2 fuel oil shall not exceed 22 lbs/hr, NOx emissions when burning natural gas shall not exceed 10.4;  
SO<sub>2</sub> emissions when burning natural gas shall not exceed 1.36 lbs/hr, SO<sub>2</sub> emissions when burning #2 oil shall not exceed 4.4 lbs/hr, SO<sub>2</sub> emissions when burning off-spec used oil shall not exceed 23.2 lbs/hr;  
VOC emissions when burning off-spec used oil or #2 fuel oil or natural gas shall not exceed 12.8 lbs/hr.

Applicable Compliance Method-

During the first full production season in which this permit is effective, the permittee shall conduct, emission testing for this emissions unit in order to demonstrate compliance with the allowable mass emission rate for PM, CO, NOx, VOC and SO<sub>2</sub>.

The following test method(s) shall be employed to demonstrate compliance with the allowable emission rate(s) for:

PM, USEPA Reference Methods 1-5, of 40 CFR Part 60, Appendix A.

CO, USEPA Reference Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

NOx, USEPA Reference Methods 1-4 and 7 or 7A of 40 CFR Part 60, Appendix A.

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

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

The test shall be conducted while the emissions unit is operating at or near maximum capacity and burning natural gas or #2 or off spec used oil for PM, CO, NOx, VOC and SO<sub>2</sub> and employing RAP to verify VOC emissions, unless otherwise specified or approved by the Ohio EPA District Office or local air agency.

Future emission testing for NOx and CO shall be conducted at the frequency specified in Ohio EPA engineering Guide #16 based on the results of the initial emissions testing.

Future emission testing for PM may be required at the discretion of RAPCA.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates(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 field office's refusal to accept the results of the emissions test(s).

Personnel from the Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment and acquire data and information regarding the emissions unit operating parameters.

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

The test shall be conducted while the emissions unit is operating at or near maximum capacity and burning natural gas or #2 or off spec used oil for PM, CO, NOx, VOC and SO<sub>2</sub> and employing RAP to verify VOC emissions, unless otherwise specified or approved by the Ohio EPA District Office or local air agency.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates(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 field office's refusal to accept the results of the emissions test(s).

Personnel from the Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment and acquire data and information regarding the emissions unit operating parameters.

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

Emission Limitation -

Particulate emissions from the stack shall not exceed 3.5 tons/yr, on a 12-month rolling basis.

Applicable Compliance Method -

Compliance shall be determined by multiplying each 12-month production summation by the emission factor of 0.033 lb PM/ton, as specified in USEPA reference document AP-42, 11.1-3 (03/04), and dividing by 2,000 pounds per ton.

Emissions Limitation-

CO emissions when burning natural gas or #2 oil or off spec used oil shall not exceed 32.5 tons/yr, on a 12-month rolling basis.

Applicable Compliance Method-

Compliance shall be determined by multiplying each 12-month production summation by the emission factor of 0.13 lb CO/ton, as specified in USEPA reference document AP-42, 11.1-7 (03/04), and dividing by 2,000 pounds per ton.

Emissions Limitation-

NOx emissions when burning #2 oil or off spec used oil shall not exceed 13.75 tons/yr, on a 12-month rolling basis.

Applicable Compliance Method-

Compliance shall be determined by multiplying each 12-month production summation by the emission factor of 0.055 lb NOx/ton, as specified in USEPA reference document AP-42, 11.1-7 (03/04), and dividing by 2,000 pounds per ton.

Emissions Limitation-

NOx emissions when burning natural gas shall not exceed 6.5 tons/yr, on a 12-month rolling basis.

Applicable Compliance Method-

Compliance shall be determined by multiplying each 12-month production summation by the emission factor of 0.026 lb NOx/ton, as specified in USEPA reference document AP-42, 11.1-7 (03/04), and dividing by 2,000 pounds per ton.

Emissions Limitation-

SO2 emissions when burning natural gas shall not exceed 0.85 ton/yr, on a 12-month rolling basis.

Applicable Compliance Method-

Compliance shall be determined by multiplying each 12-month production summation by the emission factor of 0.0034 lb SO2/ton, as specified in USEPA reference document AP-42, 11.1-7 (03/04), and dividing by 2,000 pounds per ton.

SO2 emissions when burning #2 oil shall not exceed 2.75 tons/yr, on a 12-month rolling basis.

Applicable Compliance Method-

Compliance shall be determined by multiplying each 12-month production summation by the emission factor of 0.011 lb SO2/ton, as specified in USEPA reference document AP-42, 11.1-7 (03/04), and dividing by 2,000 pounds per ton.

SO2 emissions when burning off spec used oil shall not exceed 14.5 tons/yr, on a 12-month rolling basis.

Applicable Compliance Method-

Compliance shall be determined by multiplying each 12-month production summation by the emission factor of 0.058 lb SO2/ton, as specified in USEPA reference document AP-42, 11.1-7 (03/04), and dividing by 2,000 pounds per ton.

Emission Limitation-

VOC emissions from this emissions unit when burning off-spec used oil, #2 fuel oil and natural gas shall not exceed 8.0 tons/yr, on a 12-month rolling basis.

Applicable Compliance Method-

Compliance shall be determined by multiplying each 12-month production summation by the emission factor of 0.032 lb VOC/ton, as specified in USEPA reference document, AP-42, 11.1-8 (03/04), and dividing by 2,000 pounds per ton.

Emission Limitation -

Fugitive particulate emissions shall not exceed 2.30 tons/yr, on a 12-month rolling basis.

Applicable Compliance Method -

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

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

Fugitive particulate emissions from the cold end are calculated as follows

$(500,000 \text{ tons/yr of material/yr} \times 0.0051 \text{ lb PM/ton} \times \text{ton}/2000 \text{ lbs}) + (165,000 \text{ tons of aggregate/yr} \times 0.0069 \text{ lb PM/ton} \times \text{ton}/2000 \text{ lbs}) + (165,000 \text{ tons of sand/yr} \times 0.0021 \text{ lb PM/ton} \times \text{ton}/2000 \text{ lbs}) = 2.02 \text{ tons particulate emissions}$

Fugitive particulate emissions from the hot end are calculated as follows

Silo filling  $(500,000 \text{ tons/yr of material/yr} \times 0.00052 \text{ lb PM/ton} \times \text{ton}/2000 \text{ lbs}) +$   
 Plant Load Out  $(500,000 \text{ tons/yr of asphalt produced/yr} \times 0.00058 \text{ lb PM/ton} \times \text{ton}/2000 \text{ lbs})$

= 0.28 ton particulate

Emission Limitation -

Fugitive VOC emissions shall not exceed 4.0 tons/yr, on a 12-month rolling basis.

Applicable Compliance Method -

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

Fugitive VOC emissions from the hot end are calculated as follows

Silo filling (500,000 tons/yr of material/yr x 0.012 lb VOC/ton x ton/2000 lbs) +  
Plant Load Out (500,000 tons/yr of asphalt produced/yr x 0.004 lb PM/ton x ton/2000 lbs)  
= 4.0 tons VOC  
Emissions Limitation-  
20 percent opacity as a 6-minute average, from the stack

Applicable Compliance Method-

Compliance shall be determined through visible emission evaluations performed using the methods and procedures specified in Reference Method 9 of 40 CFR Part 60, Appendix A, and 40 CFR 60.675(c).

Emission Limitation-

20 percent opacity as a 3-minute average, from fugitives

Applicable Compliance Method-

Compliance shall be determined through visible emission evaluations performed using the methods and procedures specified in Reference Method 9 of 40 CFR Part 60, Appendix A, and 40 CFR 60.675(c).

F. **Miscellaneous Requirements**

1. All the Terms and Conditions of this permit are federally enforceable.