

Facility ID: 0514010170 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: 0514010170 Emissions Unit ID: F004 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>
F004 - Plant Roadways and Parking Areas Paved roadways and parking areas	OAC rule 3745-31-05(A)(3) (PTI 05-12556)	Particulate emissions (PE) shall not exceed 4.0 tons per year. There shall be no visible particulate emissions from any paved roadway or parking area, except for a period of one minute during any 60 minute observation period.
	OAC rule 3745-17-07(B) and OAC 3745-17-08(B)	Best available technology (BAT) that is sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.c., through A.2.k.) None (see A.2.j)
Unpaved Roadways and Parking Areas	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 15.85 tons per year. There shall be no visible particulate emissions from any unpaved roadway or parking area, except for a period of time not to exceed three minutes during any sixty-minute observation.
	OAC rule 3745-17-07(B) and OAC 3745-17-08(B)	Best available technology that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.c, and A.2.d through A.2.i) None (See A.2.j)

2. Additional Terms and Conditions

- (a) All paved and unpaved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:
 The permittee shall employ best available technology on the unpaved roadways and loading areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas by monthly application of chemical stabilizers and daily application of water to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
 The permittee shall employ best available technology on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by applying water and/or wet sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing equally or more effective control measures to ensure compliance.
 Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or

parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas. As of the issuance of this permit, BAT for paved roadways is no visible particulate emissions from any paved roadway or parking area, except for a period of one minute during any 60-minute observation period.

The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.

Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported. Signs instructing the owner and/or operator of all on-road, open-bodied vehicles to cover loaded aggregate materials shall be placed in conspicuous areas.

Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

The use of used oil as a dust suppressant is prohibited per OAC rule 3745-279-82.

This emissions unit is not located in an "Appendix A" area as indicated in OAC rule 3745-17-08. Therefore, the emissions unit is not subject to the RACM requirements established in OAC rule 3745-17-08(B) and the visible emission limitations specified in OAC rule 3745-17-07(B).

B. Operational Restrictions

1. None

C. Monitoring and/or Record Keeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform daily inspections of the paved and unpaved roadways and parking areas. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions.

No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

2. The permittee may, upon receipt of written approval from the Ohio EPA Southwest District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
3. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.
4. A maximum speed limit of 15 miles per hour for vehicular traffic shall be posted at the entrance and exit of this facility.
5. The permittee shall apply chemical dust suppressants to unpaved roadways during freezing conditions when the application of water is not practical or safe. Implementation of this control measure may be suspended when sufficient moisture content exists such that emissions limitations are in compliance with those established in Part II. A.1.
6. The permittee shall water plant roadways at a minimum of once per day, unless it is below freezing or unless precipitation precludes the need for watering. Paved roadways (if ever applicable) shall be swept weekly, or as needed.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

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 limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation-

Particulate emissions (PE) from paved roadways shall not exceed 4.0 ton/yr.

Applicable Compliance Method-

Compliance shall be determined by multiplying the vehicle travel miles per year times a calculated AP-42 emission factor and a control efficiency for water flushing:

Paved roadways AP-42, Fifth Edition, Chapter 13.2.1 (12/03)

$E = k(sL/2)0.65 (W/3)1.5 \text{ lbs-C/VMT}$

$k = \text{particle size multiplier} = 0.082 \text{ lb of PE/VMT (PM-30 Table 13.2.1-1 AP-42)}$

$sL = \text{silt loading on road surface} = 4.3 \text{ gr/ft}^2 \text{ (Table 13.2.1-5)}$

$W = \text{average vehicle weight (tons)} = 29.3$

$VMT = (1,500,000 \text{ tons/yr})(\text{truck}/ 29.3 \text{ tons}) (0.19 \text{ miles}) = 9,727 \text{ VMT/yr}$

$C = \text{emission factor for 1980's vehicle fleet, } 0.00047 \text{ for PE}$

$E = 0.082(4.3/2)0.65 (29.3/3) 1.5 = 4.114 \text{ lbs of PE/VMT}$

$(4.12 \text{ lbs/VMT}) (9,727 \text{ VMT/yr}) (1 \text{ ton}/ 2,000 \text{ lbs}) = 20.01 \text{ tons of PE/yr}$

$\text{Annual emissions} = 20.01 \text{ tons of PE/yr} * (1 - 0.80 \text{ for water application}) = 4.0 \text{ tons PE/yr}$

Notes: 1. Average vehicle weight in this case is a weighted average of vehicle mix anticipated at the site. Vehicles were assumed to be fully-loaded during their entire time on site. 2. Site specific silt loading was not available; therefore, a worst-case value was chosen which reflects, according to the applicant, an emission rate that reflects the controllability of the roadway material.

Emission Limitation-

Particulate emissions (PE) from unpaved roadways shall not exceed 9.93 tons/yr.

Applicable Compliance Method-

Compliance shall be determined by multiplying the vehicle travel miles per year times a calculated AP-42 emission factor and a control efficiency for dust suppression:

UNPAVED ROADWAYS: MAXIMUM EMISSION CALCULATIONS

Emission Factor Determination: AP-42 Chapter 13.2.2 (12/03). Equation represents industrial unpaved roadways.

Emission Factor = $E = ((k (s / 12)^a (W / 3)^b)/[(365 - p)/365])$

Where:

$k = \text{particle size multiplier; } 4.9 \text{ for PE and } 1.5 \text{ for PM}_{10}$

$s = \text{surface material silt content}$

$a = \text{empirical constant; } 0.7 \text{ for PE and } 0.9 \text{ for PM}_{10}$

$b = \text{empirical constant; } 0.45 \text{ for PE and PM}_{10}$

$W = \text{mean vehicle weight (tons)} = 29.3 \text{ tons}$

$p = \text{number of days with at least } 0.01 \text{ inch of precipitation per year} = 12$

0 days/yr

$E = 6.051 \text{ lbs of PE / VMT}$

$VMT = 65, 619 \text{ VMT/yr}$

$MUER = \text{Maximum Uncontrolled Emission Rate} = (E \times VMT) / 2000 \text{ lb/ton}$

$= 198.53 \text{ tpy of PE}$

$CE = \text{control efficiency from dust suppressants, surface improvements and speed reductions} = 95\%$

$MCER = \text{Maximum Controlled Emission Rate} = MUER (1 - CE)$

$= 9.93 \text{ tons of PE/year}$

Emission limitation-

There shall be no visible emissions except for a period not to exceed one minute during any 60 minute observation period from paved roadways.

Applicable Compliance Method-

Compliance with the emission limitation for the paved roadways and parking areas shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

Emission limitation-

There shall be no visible emissions except for a period of time not to exceed three minutes during any sixty-minute observation period from unpaved roadways.

Applicable Compliance Method-

Compliance with the emission limitation for the unpaved roadways and parking areas shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

F. **Miscellaneous Requirements**

1. None